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Federal-Mogul Limited

Company Number 163992

Annual Report and Financial Statements
For the year ended 31 December 2021

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Federal-Mogul Limited

Company Number 163992

Strategic Report for the year ended 31 December 2021

The directors of Federal-Mogul Limited ("the Company") present the strategic report for the year ended 31 December 2021.

Strategy

The Company is a member of a large multi-national group. The strategy of the group is determined by the high-level group management.

The strategy is designed to create sustainable profitable growth by leveraging existing and developing new competitive advantages. This strategy consists of the following primary elements:

- Provide value-added products to customers in all markets served through leading technology and innovation;
- Utilize leading technology resources to develop advanced and innovative products, processes and manufacturing capabilities;
- Expand coverage in existing product lines and add new product lines which are critical to maintaining leadership position;
- Continue to invest in product innovation to support premium brands and to enhance marketing initiatives to more effectively communicate the value proposition of branded products to end customers;
- Aggressively pursue cost competitiveness by continuing to drive productivity in operations and rationalizing business resources and infrastructure.

Review of the business

The Company is engaged in the manufacture and distribution of automotive components for original equipment ("OE") manufacturers. The operations are spread over three separate sites within the UK. In addition, it holds a number of overseas investments indirectly through a number of UK subsidiary holding companies.

The Company considers turnover and operational EBITDA to be its key financial performance indicators. EBITDA is a non-GAAP measure defined to exclude impairment charges, restructuring costs, corporation tax expense, income from shares in group undertakings, interest expense and income, depreciation and amortisation.

Turnover for the year was £58,421,820 compared with £92,054,914 in 2020, a decrease of £33,633,094. The most significant factor for the decrease in turnover was the effect of the closure of the Company's piston pin business and the transfer of the Company's piston distribution business during the previous year. However, this was partially offset by an increase in turnover in the first half of 2021 as the effect of Covid gradually reduced.

EBITDA for the year was £7,173,773 compared with £12,432,772 in 2020, a net decrease of £5,258,999. There were several factors leading to this decrease. Gross margin increased by almost £3,500,000 (after adding back depreciation) and was back to a pre-pandemic level. However, EBITDA was adversely affected year on year by virtue of unusual income in 2020 mainly from government grants and also compensation received for the transfer of the Company's piston distribution business to a fellow group undertaking. In addition, foreign exchange movements adversely affected the Company year on year by almost £1,600,000.

During the previous year the Company sold certain assets of its piston pins business to a third party and also transferred its piston distribution business to a fellow group undertaking. This led to the closure of the site and an employee redundancy programme, the costs of which were included within the Company's redundancy and rationalisation costs in that year.

Calculation of representative non-financial KPIs is not appropriate at this legal entity level given the global structure of the overall group.

The directors consider that the year end financial position of the Company was satisfactory.

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Section 172 statement

The directors of the Company set out below how they have performed their individual and collective duty, whilst acting in good faith, under Section 172 of the Companies Act 2006, in promoting the success of the Company for the benefit of its members as a whole, encompassing all stakeholder interests.

During the year there were no long-term strategy decisions made by the Board which would affect its stakeholders.

The employees and the Company work in partnership to build and sustain the business for mutual benefit. Employees and their interests are at the heart of any decision making by the Company.

As a member of a large multi-national group some of our products are linked with those of other group companies throughout the world. Our suppliers and customers benefit from the consistent approach throughout the group, trusted relationships have been built with our customers and suppliers to ensure benefits for all parties and stakeholders. The board also relies on local management at its UK sites to create and ensure a positive and constructive relationship with customers and suppliers.

The Company manages its environmental responsibilities through its commitment to follow both local and group environmental requirements and laws. It instigates best practice for preventing pollution, reducing waste and achieving energy efficiency.

The Company registers its Modern Slavery statement on the UK government's website.

The Company's shareholder is fully aligned with the strategy and aims of the Company. All decisions taken by the board of directors during the year have been fully supported by its parent.

Going concern

During 2021 the worldwide pandemic caused by a novel coronavirus (SARS-CoV-2) continued. However, the directors have considered the potential consequences of this pandemic, and have concluded that it is unlikely to have a long-term effect on the Company's subsidiaries and also that it will have no significant long-term effect, if any, on the Company itself nor its ability to continue as a going concern.

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Principal risks and uncertainties

Aside from any uncertainty related to the current pandemic, the principal risks and uncertainties that the Company faces are:

Adverse conditions in the automotive market

The revenues of operations are closely tied to global OE vehicle sales, production levels, and independent aftermarket parts replacement activity. The OE market is characterised by short-term volatility, with overall expected long-term growth in global vehicle sales and production. Automotive production in the local markets served can be affected by macro-economic factors such as interest rates, fuel prices, consumer confidence and employment trends. A variation in the level of vehicle production would not only affect sales to OE customers but, depending on the reasons for the change, could impact demand from aftermarket customers. Results of operations and financial position could be adversely affected through failure to respond in a timely and appropriate manner to changes in the demand for products.

Competitiveness of automotive industry

The automotive sector is an extremely competitive industry, driven by global vehicle production volumes and part replacement trends. Business is typically awarded to the supplier offering the most favourable combination of cost, quality, technology and service. In addition, customers continue to require periodic price reductions that necessitate their suppliers to continually assess, redefine and improve operations, products and manufacturing capabilities to maintain and improve profitability. In addition, efforts by competitors to increase their market share could exert additional downwards pressure on product pricing and margins. Management continues to develop and execute initiatives to meet the challenges of the industry with the aim of continuing to compete effectively in the automotive market.

Currency fluctuations

The Company is exposed to a risk of gain or loss from changes in foreign exchange rates whenever the Company enters into a purchase, sales or intra-group loan agreement in a currency other than sterling. The Company is a member of a multi-national group and it is group policy to minimise external hedging of currency exposure whether related to intra-group transactions or third party transactions.

New Technologies

Increased fuel economy and decreased vehicle emissions are of great importance to OEM's as legislators and customers continue to demand more efficient and cleaner operating vehicles. Increasingly stringent fuel economy standards and environmental regulations are driving OEM's to focus on new technologies including downsized, higher output and turbocharged petrol engines, diesel and turbocharged diesel, bio-mass and hybrid diesel applications and hybrid, electric and alternative energy engines. Also, vehicle safety continues to receive industry attention by OEM's as customers view safety as a fundamental driver in consumer purchasing decisions and legislation looks on improved vehicle safety as a public health issue. Management endeavours to ensure that products meet the requirements of these new technologies and continually develops leading edge technologies, both in respect of product and process in order to remain competitive and to continually strive for market leadership.

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Principal risks and uncertainties (continued)

Raw material and other cost fluctuations

In recent periods there have been significant fluctuations in the prices of raw materials, energy and transport costs which have had and may continue to have an unfavourable impact on the business. Competitive and marketing pressures may limit the ability to pass some of the cost increases on to customers who are generally not obligated to accept these type of price increases. This inability to pass on price increases to customers when costs increase rapidly or to a significantly higher than historic level could adversely affect operating margins and cash flow, possibly resulting in lower operating income and profitability.

Treasury Policies

Financial Instruments

The Company's financial instruments comprise cash at bank, balances with group undertakings and trade debtors and creditors arising from normal operations. These financial instruments are used to fund the Company's operations. It is Company policy that no trading in financial instruments be undertaken.

Interest Rate Risk

There are no bank borrowings so interest rate risk arises only from those intra-group loans which bear interest. However, these loans carry interest at a fixed rate and therefore there is no interest rate exposure.

Foreign currency risk

As a member of a multi-national group, the Company does not hedge currency exposure. It is not considered appropriate to do so in connection with intra-group loans or intra-group trading and exposure to risk relating to third party export sales is mitigated by the level of purchases from overseas suppliers denominated in the same currency. Foreign currency is held for only short periods, the general policy being to convert all cash transactions to sterling as soon as possible.

Credit Risk

The Company's objective is to reduce the risk of financial loss due to a counterparty's failure to honour its obligations. This is achieved by each operating division being responsible for assessing the credit risk associated with accepting production schedules from customers and for managing shipments and receivables within pre-determined credit limits. Similarly, in respect of intra-group loans resulting from Tenneco's policy to use cash surpluses in one area of the business to meet funding requirements in another, credit risk is assessed by a central treasury department.

Liquidity Risk

The Company aims to mitigate liquidity risk by managing cash generation by its operations. Formal approval procedures apply within each operating unit in respect of capital expenditure and cash flow is managed through regular forecasting and management review of operating results at all levels of the company.

On behalf of the Board

Farkrali Shujaat

F. Shujaat
Director
Date: 23rd December 2022

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Federal-Mogul Limited

Company Number 163992

Directors' Report for the year ended 31 December 2021

The directors of Federal-Mogul Limited ("the Company") present their annual report for the year ended 31 December 2021 together with the audited financial statements for the year.

Results and dividends

The profit for the year after tax was £49,994,415 (2020: £21,627,310), an increase of £28,367,105. The Company made a provision against a doubtful intercompany debt of £14,517,300 (2020: provision released £7,194,062) but made no provisions against its investments in subsidiaries (2020: provision £20,000,000). During the year the Company paid an interim dividend amounting to £70,000,000 to its parent, Federal-Mogul Global Growth Limited (2020: Interim dividends totalling £12,357,963). No final dividend is proposed (2020: £nil).

Principal activities

The principal activity of the Company continued to be the manufacture and distribution of automotive components for original equipment ("OE") manufacturers.

Research and development

The research and development activities of the Company continue to be directed principally towards the development of new products and to improving the performance and effectiveness of existing products. In 2021 expenditure amounted to £343,589 (2020: £339,758).

Energy & Carbon Report

The Company's emissions for the current and prior year are set out in the tables below.

		2021	2020
		MWh	MWh
Scope 1	Natural gas	4,420	4,370
	Vehicle Fuels	-	-
Scope 2	Electricity	21,830	21,880
Scope 3	Vehicle fuels*	4	4
Total		**26,254**	**26,254**

		2021	2020
		Tonnes CO_2e	Tonnes CO_2e
Scope 1	Natural gas	810	804
	Vehicle Fuels	-	-
Scope 2	Electricity	4,640	5,102
Scope 3	Vehicle fuels*	1	1
Total		**5,451**	**5,907**

UK Government GHG Conversion Factors for Company Reporting, 2021
Methodology consistent with GHG Protocol
*estimate for business travel in rental cars, or employee-owned vehicles

The most relevant intensity measure for the Company is 93.3 Tonnes of CO_{2e} per £m Turnover (2020:64.2 Tonnes).

Energy & Carbon Report (continued)

At Federal-Mogul Limited we manage our energy use and CO_2 emissions. We monitor monthly consumption through meter reading and invoices and this data is entered into our Group web-based reporting system. This enables us to track our trends in CO_2 emissions. We identify improvement measures by sharing good practice and by acting on recommendations from energy surveys such as those generated during our compliance with the ESOS regulations. We have continued our efficiency initiatives to, for example: install energy efficient LED lighting in buildings, occupancy sensors in most offices, change to LED external flood lighting, and install new more energy efficient machinery. We also use ISO management systems to bring structure to the continual improvement of our approaches. The impacts of Covid and the semi-conductor chip shortage during 2021 make accurately quantifying impacts of recent improvements difficult and continue to make annual comparison challenging in the short term.

The Company's ultimate parent, Tenneco Inc., publishes an annual sustainability report. This report can be found in the Corporate Responsibility section of its website www.tenneco.com . It details the achievements of the group and also indicates the goals of the group as a whole to reduce its emissions and energy consumption, goals with which the Company is fully aligned.

Looking ahead

The Company will continue its strive to meet changing customer requirements to ensure it wins new business arising from the customers' new vehicle programmes.

The Company will also continue its attempts to obtain efficiencies in relation to both the manufacturing processes and also the costs associated with those processes.

Employees and employment policies

As at the balance sheet date the Company has 305 employees located in the UK (2020: 364).

It is the Company's policy to provide equal opportunities to all employees. The Company provides appropriate training at all levels and is committed to helping employees to develop their full potential by gaining relevant skills and experience.

Full and fair consideration is given to applications for employment made by disabled persons. Employees who become disabled will be retained in employment wherever possible and, where necessary, appropriate retraining will be provided.

The Company places considerable emphasis on regular and effective communications with employees on matters of concern to them. The Company involves and consults employees on matters concerning its performance.

Business relationships with suppliers, customers and others

The Company is a member of a large multi-national group and some of our products are linked with those of other group companies throughout the world. Our suppliers and customers benefit from a consistent approach throughout the group, trusted relationships have been built with our customers and suppliers to ensure benefits for all parties and stakeholders. The board also relies on local management at its UK sites to create and ensure a positive and constructive relationship with customers and suppliers.

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Post Balance Sheet Events

Details of post balance sheet events are set out in note 24 to the financial statements.

Directors

The following served as directors of Federal-Mogul Limited during the year:

E. J. Milner, resigned 31 January 2022
C. Narten

F. Shujaat and S. Lammond were appointed as directors on 26 January 2022

Directors Indemnities

The Company maintained throughout the year and at the date of approval of the financial statements, liability insurance for its directors and officers, this is a qualifying provision for the purposes of the Companies Act 2006.

Disclosure of information to auditors

The directors confirm that :

- so far as each director is aware, there is no relevant audit information of which the Company's auditor is unaware; and,
- the directors have taken all the steps that they ought to have taken as directors in order to make themselves aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

On behalf of the Board

Farkrah Shujaat

F. Shujaat
Director
Date: 23rd December 2022

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Federal-Mogul Limited

Directors' Responsibilities Statement

The directors are responsible for preparing the Strategic Report and Directors' Report, and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have elected to prepare the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law, including FRS102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland'). Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs and the profit or loss of the Company for that period. In preparing those financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

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INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF FEDERAL-MOGUL LIMITED

Opinion

We have audited the financial statements of Federal-Mogul Limited (the 'Company') for the year ended 31 December 2021, which comprise the Profit and Loss Account, the Balance Sheet, the Statement of Changes in Equity and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland (United Kingdom Generally Accepted Accounting Practice).

In our opinion, the financial statements:

- give a true and fair view of the state of the Company's affairs as at 31 December 2021 and of its profit for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the 'Auditor's responsibilities for the audit of the financial statements' section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We are responsible for concluding on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify the auditor's opinion. Our conclusions are based on the audit evidence obtained up to the date of our report. However, future events or conditions may cause the Company to cease to continue as a going concern.

In our evaluation of the directors' conclusions, we considered the inherent risks associated with the Company's business model including effects arising from macro-economic uncertainties such as Brexit and Covid-19, we assessed and challenged the reasonableness of estimates made by the directors and the related disclosures and analysed how those risks might affect the Company's financial resources or ability to continue operations over the going concern period.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

The responsibilities of the directors with respect to going concern are described in the 'Responsibilities of directors for the financial statements' section of this report.

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Other information

The directors are responsible for the other information. The other information comprises the information included in the Annual Report, other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

Matter on which we are required to report under the Companies Act 2006

In the light of the knowledge and understanding of the Company and its environment obtained in the course of the audit, we have not identified material misstatements in the Strategic Report or the Directors' Report.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of directors for the financial statements

As explained more fully in the directors' responsibilities statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

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Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Explanation as to what extent the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. Owing to the inherent limitations of an audit, there is an unavoidable risk that material misstatements in the financial statements may not be detected, even though the audit is properly planned and performed in accordance with the ISAs (UK).

The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below:

- We obtained an understanding of the legal and regulatory frameworks applicable to the Company, and the industry in which it operates, and determined that the most significant which are directly relevant to specific assertions in the financial statements are those related to the reporting framework FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" and the Companies Act 2006.
- We understood how the Company is complying with those legal and regulatory frameworks by making enquiries of management and those charged with governance of the entity. We corroborated the results of our enquiries to supporting documentation such as board minute reviews.
- We communicated relevant laws and regulations and potential fraud risks to all engagement team members, and remained alert to any indicators of fraud or non-compliance with laws and regulations throughout the audit.
- We assessed the susceptibility of the Company's financial statements to material misstatement, including how fraud might occur. Audit procedures performed by the engagement team included:
    - evaluation of the processes and controls established to address the risks related to irregularities and fraud;
    - challenge of assumptions and judgments made by management in its significant accounting estimates;
    - identifying and testing related party transactions;
    - review and testing journal entries, in particular journal entries determined to be large or relating to unusual transactions.

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Explanation as to what extent the audit was considered capable of detecting irregularities, including fraud (continued)

- These audit procedures were designed to provide reasonable assurance that the financial statements were free from fraud or error. The risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error and detecting irregularities that result from fraud is inherently more difficult than detecting those that result from error, as fraud may involve collusion, deliberate concealment, forgery or intentional misrepresentations. Also, the further removed non-compliance with laws and regulations is from events and transactions reflected in the financial statements, the less likely we would become aware of it.
- The assessment of the appropriateness of the collective competence and capabilities of the engagement team included consideration of the engagement team's knowledge of the industry in which the client operates in and understanding of, and practical experience through training and participation with audit engagements of a similar nature;
- In assessing the potential risks of material misstatement, we obtained an understanding of:
    - the Company's operations, including the nature of its revenue sources, expected financial statement disclosures and business risks that may result in risk of material misstatement; and
    - the Company's control environment, including management's knowledge of the relevant laws and regulations and how the company is complying with those laws and regulations, the adequacy of procedures for authorisation of transactions, and procedures to ensure that possible breaches of laws and regulations are appropriately resolved.

Use of our report

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Grant Thornton UK LLP

Paul Bamber MA FCA
Senior Statutory Auditor
for and on behalf of Grant Thornton UK LLP
Statutory Auditor, Chartered Accountants
Manchester
Date: 23rd December 2022

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Federal-Mogul Limited

Profit and loss account for the year ended 31 December 2021

	Notes	2021 £	2020 £
Total Turnover	5	58,421,820	92,054,914
Cost of sales		(51,725,543)	(89,261,516)
Gross profit		6,696,277	2,793,398
Other operating expenses	6(a)	(6,271,565)	(10,620,691)
Other operating income	6(b)	3,602,110	10,854,065
Provisions against fixed asset investments and similar items	6(c)	(14,517,300)	(12,805,938)
Operating loss on ordinary activities		(10,490,478)	(9,779,166)
Income from shares in group undertakings		51,394,896	16,449,353
Net interest receivable	7	12,600,457	12,488,348
Profit on ordinary activities before taxation	6(c)	53,504,875	19,158,535
Tax on profit on ordinary activities	8	(3,510,460)	2,468,775
Profit on ordinary activities after taxation		49,994,415	21,627,310
Profit attributable to shareholders		49,994,415	21,627,310

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Federal-Mogul Limited

Balance sheet as at 31 December 2021

	Notes	2021	2020
		£	£
Fixed assets			
Intangible fixed assets	13	-	243,952
Tangible fixed assets	14	14,748,849	15,137,754
Investments	15	453,265,159	453,265,159
		468,014,008	468,646,865
Current assets			
Stocks	16	2,618,188	3,035,624
Debtors falling due within one year	17	20,878,431	33,112,075
Debtors falling due after more than one year	17	172,082,850	174,751,850
		192,961,281	207,863,925
Cash at bank and in hand		10,508,948	20,904,343
		206,088,417	231,803,892
Creditors: Amounts falling due within one year	18	(21,717,444)	(28,060,191)
Net current assets		184,370,973	203,743,701
Total assets less current liabilities		652,384,981	672,390,566
Net assets		652,384,981	672,390,566
Capital and reserves:			
Called up share capital	19	271,492,951	271,492,951
Share premium account	20	129,482,022	129,482,022
Profit and loss account	20	251,410,008	271,415,593
Shareholders' funds - equity		652,384,981	672,390,566

The financial statements on pages 13 to 27 were approved by the Board on 23rd December 2022 and signed on its behalf by:

Farkrali Shujaat

F. Shujaat
Director

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Federal-Mogul Limited

Statement of changes in equity

	Notes	Called-up share capital £	Share premium account £	Profit and loss account £	Total £
At 1 January 2020		271,492,951	129,482,022	262,146,246	663,121,219
Comprehensive income for the year					
Profit for the year		-	-	21,627,310	21,627,310
Total comprehensive income for the year		-	-	21,627,310	21,627,310
Contributions by and distributions to owners					
Dividends paid	9	-	-	(12,357,963)	(12,357,963)
Total transactions with owners		-	-	(12,357,963)	(12,357,963)
At 31 December 2020		**271,492,951**	**129,482,022**	**271,415,593**	**672,390,566**
Profit for the year		-	-	49,994,415	49,994,415
Total comprehensive income for the year		-	-	49,994,415	49,994,415
Contributions by and distributions to owners					
Dividends paid	9	-	-	(70,000,000)	(70,000,000)
Total transactions with owners		-	-	(70,000,000)	(70,000,000)
At 31 December 2021		**271,492,951**	**129,482,022**	**251,410,008**	**652,384,981**

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Federal-Mogul Limited

Notes to the financial statements for the year ended 31 December 2021

1. Company Information

Federal-Mogul Limited is a limited liability company incorporated in England and Wales. Its registered office and principal place of business is at Suite 11A, Manchester International Office Centre, Styal Road, Manchester M22 5TN.

2. Basis of preparation

These financial statements have been prepared in accordance with applicable United Kingdom accounting standards including Financial Reporting Standard 102, "The Financial Reporting Standard applicable in the United Kingdom and Republic of Ireland" ("FRS102") and with the Companies Act 2006. The financial statements have been prepared on the historical cost basis.

The financial statements are presented in Sterling (£) (the Company's functional currency).

The Company's ultimate parent undertaking since 18 November 2022 is Apollo Global Management Inc., a company incorporated in the USA and listed on the New York Stock Exchange. For the whole of 2021 and until 17 November 2022 the Company's ultimate parent undertaking was Tenneco Inc. which is incorporated in the USA and until 17 November 2022 was listed on the New York Stock Exchange. For the year 2021, the Company is included in the consolidated financial statements of Tenneco Inc. which are available from its website www.tenneco.com. Consequently, the Company has taken advantage of the exemptions available, under the terms of FRS102, from preparing a cash flow statement and from disclosures in relation to financial instruments.

As stated above, the Company and all of its subsidiary undertakings are included in the consolidated financial statements of Tenneco Inc. The ultimate parent company accounts are drawn up to the same date in the same financial year and in accordance with the provisions of the Seventh Directive (83/349/EEC) or in a manner equivalent to consolidated accounts and consolidated annual reports so drawn up. Accordingly, the Company, in accordance with the exemption in s.401 of the Companies Act, has not prepared consolidated financial statements. The financial statements therefore contain information about Federal-Mogul Limited as an individual company and not as a group.

The director believes it to be appropriate to prepare the financial statements on the going concern basis and that the Coronavirus (COVID-19) pandemic will have no significant long-term effect, if any, on the Company nor its ability to continue as a going concern.

3. Significant judgements and estimates

Impairment review of fixed asset investments

The most significant judgement made in the preparation of these financial statements is the impairment review of the Company's fixed asset investments where the carrying value of investments has been compared to their value in use and an impairment charge recorded where individual investments are considered to be impaired.

The value in use is derived from discounted future cash flow projections using nominal discount rates consistent with each applicable global industry sector. A material adjustment could occur if the actual cash flows were significantly different from those used in the impairment review.

As at 31st December 2021 the carrying amounts of the fixed asset investments are:

Subsidiary Undertakings-Shares	£453,164,909	(2020: £453,164,909)
Subsidiary Undertakings-Loans	£100,250	(2020: £100,250)

Deferred tax assets

The judgement made in relation to deferred tax assets is that they are recognised to the extent that they will be recoverable out of future taxable profits based on forecasts for the next three years.

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4. Principal accounting policies

The principal accounting policies of the Company have remained unchanged from the prior year and are set out below.

Tangible assets

Tangible fixed assets are stated at cost less accumulated depreciation and accumulated impairment losses.

Depreciation is provided on cost to write tangible fixed assets, other than freehold land and construction in progress, down to their estimated residual values on a straight line basis as follows:

- Freehold buildings, 2.5% per annum.
- Leasehold buildings are assumed to have a life equal to the period of the lease, but with a maximum of 40 years.
- Plant and machinery, at rates ranging from 7% to 33% per annum.

The assets' residual values, useful lives and depreciation methods are reviewed, and adjusted prospectively if appropriate.

The carrying values of tangible fixed assets are reviewed for impairment when events or changes in circumstances indicate the carrying value may not be recoverable.

Intangible fixed assets

Intangible assets are measured at cost less accumulated amortisation and any accumulated impairment losses.

Trademarks

Trademarks are capitalised at cost and amortised over their expected useful economic life using the straight line method. The useful economic life is considered to be ten years. Their carrying values are reviewed annually to determine whether there has been any permanent impairment in value and any such reductions in value are taken to the profit and loss account.

Investments

Fixed asset investments are stated at cost less provision for any impairment.

Impairment of assets

At each reporting date fixed assets are reviewed to determine whether there is any indication that those assets have suffered an impairment loss. If there is an indication of possible impairment, the recoverable amount of any affected asset is estimated and compared with its carrying amount. If the estimated recoverable amount is lower, the carrying amount is reduced to its estimated recoverable amount and an impairment loss is recognised immediately in profit or loss.

If an impairment loss subsequently reverses, the carrying amount of the asset is increased to the revised estimate of its recoverable amount, but not in excess of the amount that would have been determined had no impairment loss been recognised for the asset in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

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4. Principal accounting policies (continued)

Stocks

Stocks are stated at the lower of original cost and net realisable value on a first-in first-out basis. Cost comprises materials, labour and an allocation of attributable overhead expenses. Net realisable value is the price at which stocks can be sold in the normal course of business after allowing for the costs of realisation.

Debtors

Short term debtors are measured at transaction price, less any impairment.

Creditors

Short term creditors are measured at the transaction price.

Taxation

Current tax is recognised for the amount of income tax payable in respect of the taxable profit for the current or past reporting periods using the tax rates and laws that have been enacted or substantively enacted by the reporting date.

Deferred tax is recognised in respect of all timing differences at the reporting date, except as otherwise indicated.

Deferred tax assets are only recognised to the extent that it is probable that they will be recovered against the reversal of deferred tax liabilities or other future taxable profits.

If and when all conditions for retaining tax allowances for the cost of a fixed asset have been met, the deferred tax is reversed.

A deferred tax liability or asset is recognised for the additional tax that will be paid or avoided in respect of assets and liabilities that are recognised in a business combination. The amount attributed to goodwill is adjusted by the amount of deferred tax recognised.

Deferred tax is calculated using the tax rates and laws that have been enacted or substantively enacted by the reporting date that are expected to apply to the reversal of the timing difference.

With the exception of changes arising on the initial recognition of a business combination, the tax expense (income) is presented either in profit or loss, other comprehensive income or equity depending on the transaction that resulted in the tax expense (income).

Deferred tax liabilities are presented within provisions for liabilities and deferred tax assets within debtors.

Deferred tax assets and deferred tax liabilities are offset only if:

- the group has a legally enforceable right to set off current tax assets against current tax liabilities, and,
- the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously.

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4. Principal accounting policies (continued)

Government grants

Government grants are recognised as income when grant proceeds are received.

Foreign currencies

Transactions in foreign currency are recorded at the rate ruling at the date of transaction. At the end of each reporting period monetary items denominated in foreign currencies are retranslated at the rate prevailing at that date. Exchange differences are recognised in the profit and loss account in the period in which they arise.

Leasing

Rentals payable under operating leases are charged to the profit and loss account on a straight line basis over the lease term.

The aggregate benefit of lease incentives are recognised as a reduction to the expense recognised over the lease term on a straight line basis.

Pensions Costs

The Company operates a defined contribution scheme in the form of a stakeholder plan. Contributions to this scheme are recognised in the profit and loss account in the period in which they become payable.

Further information on pension arrangements is set out in Note 11 to the accounts.

Revenue Recognition

Revenue is recognised to the extent that the Company obtains the right to consideration in exchange for its performance. Revenue is measured at the fair value of the consideration received or receivable, excluding discounts, rebates, VAT and other sales taxes or duty. The following criteria must also be met before revenue is recognised:

Sale of goods

Revenue from the sale of goods is recognised when the significant risks and rewards of ownership of the goods have passed to the buyer, usually on dispatch of the goods.

Royalty income

Revenue is recognised as royalties accrue.

Interest income

Revenue is recognised as interest accrues.

5. Turnover

Turnover, analysed geographically between markets, was as follows:

	2021 £	2020 £
UK	7,225,287	35,861,368
Europe, Middle East and Africa	25,850,291	28,546,220
North America	6,415,718	7,459,811
Rest of world	18,930,524	20,187,515
	58,421,820	92,054,914

Turnover arises on the sale of a range of automotive components which represent a single stream of turnover. Accordingly, no further disclosure is deemed necessary.

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6. Analysis of results

(a) Other operating expenses	2021 £	2020 £
Distribution costs	654,273	911,169
Administrative expenses	5,617,292	9,709,522
Other operating expenses	6,271,565	10,620,691

Costs of operations charged in arriving at operating profit include £437,547 (2020: £5,514,197) in respect of redundancy and rationalisation. £nil of these costs (2020: £nil) have been charged as cost of sales and £437,547 (2020: £5,514,197) as administration expenses.

(b) Other operating income	2021 £	2020 £
Royalty income	3,559,413	3,248,021
Profit on transfer of Piston distribution business	-	5,472,651
Government grants received	42,697	1,978,404
Other income	-	154,989
	3,602,110	10,854,065

(c) Profit before taxation is stated after charging/(crediting):	2021 £	2020 £
Auditor's remuneration		
- Audit of company financial statements	40,000	42,790
- Audit of UK subsidiary companies	109,000	56,240
Research and development	343,589	339,758
R&D Expenditure Credits	-	(45,765)
Amortisation of intangible fixed assets	243,952	975,814
Depreciation of tangible fixed assets		
- owned assets	2,465,452	2,915,989
Provision against fixed asset investments	-	20,000,000
Provision /(release of provision) against intercompany loan receivables	14,517,300	(7,194,062)
Operating lease rentals	288,497	414,830
Government grants received	(42,697)	(1,978,404)
Loss/(profit) on foreign exchange movements	935,861	(647,897)

The auditors of the Company also received audit fees for auditing the accounts of the Company's overseas subsidiary undertakings of £325,700 (2020: £331,549).

7. Net interest receivable	2021 £	2020 £
Interest receivable on group loans	12,285,246	12,343,004
Interest receivable on deposits	314,314	143,248
Other	897	2,096
	12,600,457	12,488,348

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8. Tax on profit on ordinary activities

(a) Analysis of tax charge/(credit) in the year	2021 £	2020 £
Current tax:		
UK corporation tax on profits for the period	180,595	147,927
Foreign tax relief/other relief	(180,595)	(147,927)
	-	-
Foreign tax suffered	180,595	148,258
Total Current Tax	180,595	148,258
Deferred tax: (note 21)		
Origination and reversal of timing differences	3,343,708	(1,663,797)
Effect of changes in tax rates	(13,843)	(953,236)
Total Deferred Tax	3,329,865	(2,617,033)
Tax on profit on ordinary activities	3,510,460	(2,468,775)

(b) Factors affecting tax (credit) / charge for the year

The tax assessed on the profit on ordinary activities for the year is lower (2020: lower) than the standard rate of corporation tax in the UK of 19% (2020: 19%). The differences are explained below:

	2021 £	2020 £
Profit on ordinary activities before taxation	53,504,875	19,158,535
Profit on ordinary activities before taxation multiplied by the standard rate of corporation tax in the UK of 19% (2020: 19%)	10,165,926	3,640,122
Effect of:		
Expenses not deductible for tax purposes	2,816,038	2,618,533
Income not taxable	(9,765,030)	(3,125,377)
Movement on deferred tax unrecognised	320,961	(4,361,295)
Foreign tax	-	331
UK: UK transfer pricing adjustment	(13,592)	(14,253)
Use of capital losses	-	(273,600)
Tax rate changes	(13,843)	(953,236)
Tax on profit on ordinary activities	3,510,460	(2,468,775)

(c) Factors that may affect future tax charges

The Company has unrestricted capital losses available for carry forward of £95,377,356 (2020: £95,377,356).

No deferred tax has been provided for tax that may become payable if revalued assets are disposed of at their revalued amounts.

Finance Act 2021, which received Royal Assent on 10 June 2021, increased the Corporation Tax rate from the current 19% rate to 25% from 1 April 2023.

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9. Dividends	2021 £	2020 £
Paid during year	70,000,000	12,357,963

10. Employees	2021 No.	2020 No.
Monthly average number of employees		
Manufacturing	269	331
Selling and Marketing	8	8
Research and Development	4	4
Administrative	70	97
	351	440

Employment costs	2021 £	2020 £
Wages and salaries	15,024,473	17,744,207
Social security costs	1,551,887	1,830,348
Net pension charge (Note 11)	1,858,345	2,293,323
Redundancy payments	437,547	5,227,451
	18,872,252	27,095,329

11. Pensions commitments

	2021 £	2020 £
Defined contribution scheme	1,858,345	2,293,323

The Company operates a defined contribution scheme in the form of a stakeholder plan.

As at 31 December 2021 outstanding employer contributions of £155,878 (2020: £230,711) were included in Creditors – Amounts falling due within one year.

There are no other significant post-employment benefits.

12. Directors' emoluments

The directors of the Company have not received any emoluments in respect of their services as a director of the Company (2020: £nil).

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13. Intangible fixed assets	Trademarks £
Cost	
At 1 January 2021	9,758,138
At 31 December 2021	9,758,138
Amortisation	
At 1 January 2021	9,514,186
Charge for the year	243,952
At 31 December 2021	9,758,138
Net book value	
At 31 December 2021	-
At 31 December 2020	243,952

Trademarks

On 29 March 2011 F-M Trademarks Limited assigned all rights, title and interest in the Goetze family of trademarks to the Company as of 1 April 2011. The consideration for the assignment was £9,758,138.

The trademarks were capitalised at cost and amortised evenly over 10 years. They are now fully written down.

14. Tangible fixed assets	Land and buildings £	Plant and machinery £	Total £
Cost			
At 1 January 2021	4,831,884	54,921,510	59,753,394
Additions	-	2,119,777	2,119,777
Disposals	-	(1,129,303)	(1,129,303)
At 31 December 2021	4,831,884	55,911,984	60,743,868
Depreciation			
At 1 January 2021	3,293,639	41,322,001	44,615,640
Disposals	-	(1,086,073)	(1,086,073)
Charge for the year	66,958	2,398,494	2,465,452
At 31 December 2021	3,360,597	42,634,422	45,995,019
Net book value			
At 31 December 2021	1,471,287	13,277,562	14,748,849
At 31 December 2020	1,538,245	13,599,509	15,137,754

Included in the cost of fixed assets are plant and machinery in the course of construction £2,210,014 (2020: £1,291,397). Assets in the course of construction are not depreciated.

Net book value of land and buildings	2021 £	2020 £
Freehold land – not depreciated	700,000	700,000
Freehold buildings	771,287	838,245
Short leasehold	-	-
	1,471,287	1,538,245

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15. Fixed asset investments

	Subsidiary Undertakings		
	Shares	Loans	Total
	£	£	£
Cost			
At 1 January 2021	501,712,665	100,250	501,812,915
At 31 December 2021	501,712,665	100,250	501,812,915
Provisions			
At 1 January 2021	48,547,756	-	48,547,756
At 31 December 2021	48,547,756	-	48,547,756
Net book value			
At 31 December 2021	453,164,909	100,250	453,265,159
At 31 December 2020	453,164,909	100,250	453,265,159

Details of all investments held by the Company are disclosed below:

Name of Company	Registered office	Holding	Proportion of voting rights and shares held %	Nature of business
FDML Holdings Limited	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Holding company
Federal-Mogul Coventry Limited +	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Powder Metal Products
Piston Rings (UK) Limited +	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Distribution of piston rings
Federal-Mogul Controlled Power Limited	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Hybridization applications
Federal-Mogul Employee Trust Administration Limited	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Administration of a life insurance agreement
Leeds Piston Ring & Engineering Co Limited	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Non-trading
Federal-Mogul Bradford Limited	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Dormant
Federal-Mogul Engineering Limited	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Dormant
Federal-Mogul Technology Limited	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Dormant
F-M Trademarks Limited	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Dormant
AE Group Machines Limited	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Dormant
Sintration Limited	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Dormant
Wellworthy Limited	Manchester International Office Centre, Styal Road, Manchester M22 5TN	Ordinary shares	100	Dormant

+ These companies operate as a managing agent of Federal-Mogul Limited.

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15. Fixed asset investments (continued)

In accordance with FRS102, the directors have compared the carrying value of investments to their value in use to the Company and recorded an impairment charge for any individual investments that they considered impaired. No charge was required in the current year (2020: charge £20,000,000).

The value in use has been derived from discounted cash flow projections using a nominal discount rate of 13% (2020: range 13.0% to 14.5%) on a pre-tax basis. A long-term growth rate of 1% (2020: 2%) has been assumed.

16. Stocks	**2021**	**2020**
	£	**£**
Raw materials	367,611	647,505
Work in progress	771,130	1,159,663
Finished goods	1,479,447	1,228,456
	2,618,188	3,035,624

An impairment loss of £291,569 (2020: loss £139,427) was recognised in cost of sales during the year due to slow-moving, damaged and obsolete stock.

17. Debtors	**2021**	**2020**
Debtors falling due within one year	**£**	**£**
Trade debtors	6,695,810	11,867,101
Amounts owed by fellow subsidiaries	9,846,404	13,861,143
Deferred tax asset (see note 21)	2,501,970	3,162,835
Prepayments and accrued income	518,561	699,921
Other debtors	1,315,686	3,521,075
	20,878,431	33,112,075

An impairment loss of £471 (2020: £60,701) was recognised against trade debtors.

Debtors falling due after more than one year		
Amounts owed by fellow subsidiary	167,157,850	167,157,850
Deferred tax asset (see note 21)	4,925,000	7,594,000
	172,082,850	174,751,850

The amounts owed by fellow subsidiary due after more than one year consist of an unsecured promissory note with a maturity date of 1 December 2027. The promissory note bears interest at a rate of 7.24% per annum.

18. Creditors – Amounts falling due within one year	**2021**	**2020**
	£	**£**
Trade creditors	5,038,969	8,126,322
Amounts owed to fellow subsidiaries	12,533,657	12,369,511
Payroll and other taxes, including social security	396,695	472,764
Accruals, deferred income and other creditors	3,748,123	7,091,594
	21,717,444	28,060,191

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19. Called up share capital

Ordinary shares of 40p each	Authorised No. of shares	Authorised £	Issued and fully paid No. of shares	Issued and fully paid £
At 1 January 2021	725,000,000	290,000,000	678,732,377	271,492,951
At 31 December 2021	725,000,000	290,000,000	678,732,377	271,492,951

There is a single class of ordinary shares. There are no restrictions on dividends nor on the repayment of capital.

20. Reserves

Called up share capital

This represents the nominal value of shares that have been issued.

Share premium account

This includes any premiums received on issue of share capital. Any transaction costs associated with the issuing of shares are deducted from the share premium.

Profit and loss account

This includes all current and prior period retained profits and losses.

21. Deferred Taxation

Deferred tax asset	2021 £	2020 £
Tax losses	-	1,837,000
ACT	7,388,000	8,876,000
Other timing differences	38,970	43,835
Deferred tax asset	7,426,970	10,756,835

In applying the Company's accounting policy for deferred tax, management has considered projections for the next three years to determine likely future taxable profits and judged that it is appropriate to recognise a deferred tax asset in respect of both ACT and trading losses.

Unprovided assets	2021 £	2020 £
Decelerated capital allowances	8,875,023	6,295,489
Capital losses	23,844,339	18,121,698
Surplus ACT	9,458,962	13,928,379
Losses	26,942,210	16,630,597
	69,120,534	54,976,163

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22. Commitments and contingent liabilities	2021 £	2020 £
Future capital expenditure – contracts placed	-	-
The Company's future minimum operating lease payments are as follows:		
- within one year	189,271	339,673
- between one and five years	480,830	697,961
- later than five years	7,347	-
	677,448	1,037,634

Contingent liabilities also exist in respect of cross-guarantees given by the Company and its UK subsidiaries to support some of the Group's UK banking facilities amounting to £nil (2020: £nil).

23. Related Party Transactions

The Company has taken advantage of the exemption in FRS102, para 33.1A, not to disclose transactions with other group companies which meet the criteria that all subsidiary undertakings which are party to the transactions are wholly-owned.

Other operating income includes:	2021 £	2020 £
Royalties from associates	977,290	1,018,910

There are no other material related party transactions.

24. Post Balance Sheet Events

On 23 February 2022, Tenneco Inc (NYSE: TEN), the Company's ultimate parent company announced that it had entered into a definitive agreement to be acquired by funds managed by affiliates of Apollo Global Management Inc (NYSE: APO). The transaction closed on 17 November 2022. As a consequence of this acquisition , Tenneco's shares will no longer trade on the New York Stock Exchange and it has become a private company. Tenneco will continue to operate under the Tenneco name and brand and maintain a global presence. As at the point of signing the financial statements, the directors cannot measure nor ascertain what effect this acquisition will have on the Company and its subsidiaries.

On 4 August 2022, the Company received a dividend of £94,600,000 from one of its subsidiary undertakings, FDML Holdings Limited.

On 4 August 2022, the Company paid a dividend of £94,600,000 to its parent undertaking Federal-Mogul Global Growth Limited.

25. Parent and ultimate parent company

The Company's immediate parent company is Federal-Mogul Global Growth Limited, a company registered in England and Wales. Since 18 November 2022, the ultimate parent company and controlling party is Apollo Global Management Inc., a company registered in the USA. For the whole of 2021 and until 17 November 2022, the ultimate parent company and controlling party was Tenneco Inc. registered in the USA. The 2021 group accounts of Tenneco Inc are the smallest and largest group accounts in which the Company is included. Accounts of this company may be obtained from www.tenneco.com .

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2021

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission file number 1-12387

TENNECO INC.

(Exact name of registrant as specified in its charter)

Delaware	
(State or other jurisdiction of incorporation or organization)	
500 North Field Drive Lake Forest, IL	
(Address of principal executive offices)	
76-0515284	
(I.R.S. Employer Identification No.)	
60045	
(Zip Code)	

Registrant's telephone number, including area code: (847) 482-5000

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each Exchange on which registered
Class A Voting Common Stock, par value $.01 per share	TEN	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☑

Note — Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Exchange Act from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or emerging growth company. See the definitions of "large accelerated filer," "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
	Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C.7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☑

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2021, computed by reference to the price at which the registrant's common stock was last sold on the New York Stock Exchange on June 30, 2021, was approximately $1.6 billion.

The number of shares of Class A Voting Common Stock, par value $0.01 per share: 83,132,435 shares outstanding as of February 22, 2022.

Documents Incorporated by Reference:

Portions of Tenneco Inc.'s Definitive Proxy Statement related to the 2022 Annual Meeting of Stockholders to be filed subsequently are incorporated by reference into Part III of this Form 10-K.

CAUTIONARY STATEMENT FOR PURPOSES OF THE "SAFE HARBOR" PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

This report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 concerning, among other things, our prospects and business strategies. These forward-looking statements are included in various sections of this report. The words "may," "will," "believe," "should," "could," "plan," "expect," "anticipate," "estimate," and similar expressions (and variations thereof), identify these forward-looking statements. Although we believe the expectations reflected in these forward-looking statements are based on reasonable assumptions, these expectations may not prove to be correct. Because these forward-looking statements are also subject to risks and uncertainties, actual results may differ materially from the expectations expressed in the forward-looking statements. Important factors that could cause actual results to differ materially from the expectations reflected in the forward-looking statements include, without limitation:

- general economic, business, market and social conditions, including the effects of the COVID-19 pandemic and the impact of inflationary pressures on materials, labor and other costs of doing business;
- our ability (or inability) to successfully execute cost reduction, performance improvement and other plans, including our plans in response to the COVID-19 pandemic and our previously announced accelerated performance improvement plan ("Accelerate"), and to realize the anticipated benefits from these plans;
- disasters, local and global public health emergencies or other catastrophic events, such as fires, earthquakes and flooding, pandemics or epidemics (including the COVID-19 pandemic), where we or our customers do business and any resultant disruptions in the supply or production of goods or services to us or by us in demand by our customers or in the operation of our system, disaster recovery capabilities or business continuity capabilities;
- supply chain disruptions, including constraints on steel and semiconductors and resulting increases in costs, impacting our company, our customers or the automotive industry;
- changes in capital availability or costs, including increases in our cost of borrowing (i.e., interest rate increases or fluctuations), the amount of our debt, our ability to access capital markets at favorable rates, and the credit ratings of our debt and our financial flexibility to respond to the COVID-19 pandemic;
- our ability to comply with the covenants contained in the agreements governing our indebtedness and otherwise have sufficient liquidity through the COVID-19 pandemic;
- our working capital requirements;
- our ability to source and procure needed materials, components and other products, and services (including the services of employees) in accordance with customer demand and at competitive prices;
- the cost and outcome of existing and any future claims, legal proceedings or investigations, including, but not limited to, any of the foregoing arising in connection with product performance, product safety or intellectual property rights;
- changes in consumer demand for our original equipment ("OE") products or aftermarket products, prices and our ability to have our products included on top selling vehicles, including any shifts in consumer preferences away from historically higher margin products for our customers and us, to other lower margin vehicles, for which we may or may not have supply arrangements;
- the continued evolution of the automotive industry towards car and ride sharing, and autonomous vehicles;
- the announced plans, in an effort to reduce greenhouse gas emissions, of governments and vehicle manufactures to limit production of diesel and gasoline powered vehicles in various national and local jurisdictions globally;
- the cyclical nature of the global vehicle industry, including the performance of the global aftermarket sector and the impact of vehicle parts' longer product lives;
- changes in automotive and commercial vehicle manufacturers' production rates and their actual and forecasted requirements for our products, due to difficult economic conditions and/or regulatory or legal changes affecting internal combustion engines and/or aftermarket products;
- new technologies that reduce the demand for certain of our products or otherwise render them obsolete;
- our dependence on certain large customers, including the loss of any of our large OE manufacturer customers (on whom we depend for substantial portion of our revenues), or the loss of market shares by these customers if we are unable to achieve increased sales to other OE-customers or any change in customer demand due to delays in the adoption or enforcement of worldwide emissions regulations;
- our ability to introduce new products and technologies that satisfy customers' needs in a timely fashion;
- the overall highly competitive nature of the automotive and commercial vehicle parts industries, and any resultant inability to realize the sales represented by our awarded book of business (which is based on anticipated pricing and volumes over the life of the applicable program);

- the impact of consolidation among vehicle parts suppliers and customers on our ability to compete in the highly competitive automotive and commercial vehicle supplier industry;
- risks inherent in operating a multi-national company, including economic conditions, such as currency exchange and inflation rates, political conditions in the countries where we operate or sell our products, adverse changes in trade agreements, tariffs, immigration policies, political stability or instability, tax and other laws, and potential disruptions of production and supply;
- increasing competition from lower cost, private-label products;
- damage to the reputation of one or more of our leading brands;
- the impact of improvements in automotive parts on aftermarket demand for some of our products;
- industry-wide strikes, work stoppages, labor shortages, labor disruptions at our facilities or any labor or other economic disruptions at any of our significant customers or suppliers or any of our customers' other suppliers, including increased costs associated with strikes or labor or other economic disruptions;
- developments relating to our intellectual property, including our ability to adapt to changes in technology and the availability and effectiveness of legal protection for our innovations and brands;
- costs related to product warranties and other customer satisfaction actions;
- the failure, breach of, or potential disruption to, our information technology systems, including cyber attacks, such as ransomware or similar intrusions, cyber incidents, or misappropriation, exposure or corruption of sensitive information stored on such systems and the interruption to our business that such failure, breach or disruption may cause;
- changes in distribution channels or competitive conditions in the markets and countries where we operate;
- customer acceptance of new products;
- our ability to successfully integrate, and benefit from, any acquisitions we complete;
- our ability to effectively manage our joint ventures and other third-party relationships;
- the potential impairment in the carrying value of our long-lived assets, goodwill, and other intangible assets or the inability to fully realize our deferred tax assets;
- the negative impact of fuel price volatility on transportation and logistics costs, raw material costs, discretionary purchases of vehicles or aftermarket products and demand for off-highway equipment;
- increases in the costs of raw materials or components, including our ability to successfully reduce the impact of any such cost increases through materials substitutions, cost reduction initiatives, customer recovery, and other methods;
- changes by the Financial Accounting Standards Board ("FASB") or the Securities and Exchange Commission ("SEC") of generally accepted accounting principles or other authoritative guidance;
- changes in accounting estimates and assumptions, including changes based on additional information;
- any changes by the International Organization for Standardization ("ISO") or other such committees in their certification protocols for processes and products, which may have the effect of delaying or hindering our ability to bring new products to market;
- the impact of the extensive, increasing, and changing laws and regulations to which we are subject, including environmental laws and regulations, which may result in our incurrence of environmental liabilities in excess of the amount reserved or increased costs or loss of revenues relating to products subject to changing regulation;
- potential volatility in our effective tax rate;
- acts of war and/or terrorism, as well as actions taken or to be taken by the United States and other governments as a result of further acts or threats of terrorism, and the impact of these acts on economic, financial and social conditions in the countries where we operate;
- pension obligations and other postretirement benefits;
- our hedging activities to address commodity price fluctuations; and
- the timing and occurrence (or non-occurrence) of other transactions, events and circumstances which may be beyond our control.

In addition, this report includes forward-looking statements regarding the Agreement and Plan of Merger (the "Merger Agreement") that the Company entered into with Pegasus Holdings III, LLC (the "Parent") and Pegasus Merger Co. on February 22, 2022. Pursuant to the terms and conditions set forth in the Merger Agreement, Merger Sub will merge with and into Tenneco (the "Merger") with Tenneco continuing as the surviving corporation of the Merger and as a wholly owned subsidiary of Parent. Important factors that could cause actual results to differ materially from the expectations reflected in the forward-looking statements include (without limitation and in addition to the risks set forth above):

- the inability to consummate the Merger within the anticipated time period, or at all, due to any reason, including the failure to obtain stockholder approval to adopt the Merger Agreement, the failure to obtain required regulatory approvals or the failure to satisfy the other conditions to the consummation of the Merger;
- the risk that the Merger Agreement may be terminated in circumstances requiring us to pay a termination fee;
- the risk that the Merger disrupts our current plans and operations or diverts management's attention from its ongoing business;
- the effect of the announcement of the Merger on our ability to retain and hire key personnel and maintain relationships with our customers, suppliers and others with whom we do business;
- the effect of the announcement of the Merger on our operating results and business generally;
- the amount of costs, fees and expenses related to the Merger;
- the risk that our stock price may decline significantly if the Merger is not consummated;
- the nature, cost and outcome of any litigation and other legal proceedings, including any such proceedings related to the Merger and instituted against Tenneco and others; and
- other risks to consummation of the proposed Merger, including the risk that the proposed Merger will not be consummated within the expected time period or at all.

The risks included here are not exhaustive. Refer to "Part I, Item 1A — Risk Factors" of this report for further discussion regarding our exposure to risks. Additionally, new risk factors emerge from time to time and it is not possible for us to predict all such risk factors, nor to assess the effect such risk factors might have on our business or the extent to which any factor or combination of factors may cause actual results to differ materially from those contained in any forward-looking statements. Given these risks and uncertainties, investors should not place undue reliance on forward-looking statements as a prediction of actual results. Unless otherwise indicated in this report, the forward-looking statements in this report are made as of the date of this report, and, except as required by law, the Company does not undertake any obligation, and disclaims any obligation, to publicly disclose revisions or updates to any forward-looking statements.

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PART I

ITEM 1.BUSINESS.

GENERAL

Our company, Tenneco Inc., designs, manufactures, markets, and distributes products and services for light vehicle, commercial truck, off-highway, industrial, motorsport, and aftermarket customers. We manufacture innovative performance solutions, clean air and powertrain products and systems, and serve both original equipment ("OE") manufacturers and the repair and replacement markets worldwide. As used herein, the term "Tenneco," "we," "us," "our," or the "Company" refers to Tenneco Inc. and its consolidated subsidiaries.

We were incorporated in Delaware in 1996. In 2005, we changed our name from Tenneco Automotive Inc. to Tenneco Inc. The name Tenneco better represents the expanding number of markets we serve. Our Class A Voting Common Stock is traded on the New York Stock Exchange ("NYSE") under the symbol "TEN."

In the first quarter of 2021, we made a change to our operating segments. This change consisted of moving a reporting unit from the Powertrain segment to the Ride Performance segment to align with a change in how our Chief Operating Decision Maker allocates resources and assesses performance against our key growth strategies. With this segment change and our enhanced focus on growth, Ride Performance was renamed Performance Solutions.

Tenneco consists of four operating segments, Motorparts, Performance Solutions, Clean Air, and Powertrain:

- The Motorparts segment designs, manufactures, sources, markets, and distributes a broad portfolio of leading brand-name products in the global vehicle aftermarket while also servicing the original equipment service ("OES") market. Motorparts products are organized into categories, including shocks and struts, steering and suspension, braking, sealing, emissions control, engine, and maintenance. Motorparts products are marketed and sold under brand-names including Monroe®, Champion®, Öhlins®, MOOG®, Walker®, Fel-Pro®, Wagner®, Ferodo®, Rancho®, Thrush®, National®, Sealed Power®, and others;
- The Performance Solutions segment designs, manufactures, markets, and distributes a variety of products and systems designed to optimize the ride experience to a global OE customer base, including noise, vibration, and harshness ("NVH") performance materials, advanced suspension technologies ("AST"), ride control, braking, and systems protection. Performance Solutions is agnostic to powertrain technologies;
- The Clean Air segment designs, manufactures, and distributes a variety of products and systems designed to reduce pollution and optimize engine performance, acoustic tuning, and weight on a vehicle for light vehicle, commercial truck, and off-highway OE customers; and
- The Powertrain segment designs, manufactures, and distributes a variety of OE powertrain products for light vehicle, commercial truck, off-highway, and industrial applications to OE customers for use in new vehicle production and OES parts to support their service and distribution channels.

Proposed Merger

On February 22, 2022, we entered into an Agreement and Plan of Merger (the "Merger Agreement") with Pegasus Holdings III, LLC ("Parent") and Pegasus Merger Co., a wholly owned subsidiary of Parent ("Merger Sub" and together with Parent, "Buyer"). Pursuant to the terms and conditions set forth in the Merger Agreement, Merger Sub will merge with and into Tenneco (the "Merger") with Tenneco continuing as the surviving corporation of the Merger and as a wholly owned subsidiary of Parent. At the effective time of the Merger (the "Effective Time"), each share of our Class A voting common stock that is issued and outstanding immediately prior to the Effective Time (other than shares to be cancelled pursuant to the Merger Agreement or shares of common stock held by holders who have made a valid demand for appraisal in accordance with Section 262 of the Delaware General Corporation Law), will be automatically converted into the right to receive $20.00 in cash, without interest.

At the Effective Time, subject to the terms and conditions set forth in the Merger Agreement, each restricted share unit award ("RSU") and each performance share unit award ("PSU") of Tenneco that is outstanding immediately prior to the Effective Time will automatically be cancelled and converted into the holder's right to receive a cash amount (subject to any applicable withholding taxes) calculated based on the per-share Merger consideration of $20.00.

The closing of the Merger is subject to various conditions, including (i) the adoption of the Merger Agreement by holders of a majority of the issued and outstanding shares of our common stock; (ii) the absence of any order, injunction or other legal or regulatory restraint making illegal, enjoining or otherwise prohibiting the closing of the Merger; (iii) the expiration or early termination of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, or HSR Act and the expiration of any waiting period under other applicable competition and/or foreign laws; (iv) the accuracy of the representations and warranties contained in the Merger Agreement, subject to customary materiality qualifications; and (v) compliance with the covenants and agreements contained in the Merger Agreement as of the closing of the Merger. In addition, the obligation of Parent and Merger Sub to consummate the Merger is subject to the absence, since the date of the Merger Agreement, of a Company Material Adverse Effect (as defined in the Merger Agreement under clause (b) of such definition). The closing of the Merger is not subject to a financing condition, and Parent has obtained equity and debt financing commitments for the purpose of financing the Merger and the other transactions contemplated by the Merger Agreement.

Our Board of Directors and the sole member or board of directors, as applicable, of Parent and Merger Sub have each unanimously approved the Merger and the Merger Agreement. If approved by our stockholders, we currently expect the Merger to close in the second half of 2022. Until the closing, we will continue to operate as an independent company.

The foregoing description of the Merger Agreement is qualified in its entirety by reference to the full text of the Merger Agreement, which has been included herein as Exhibit 2.1 to this Annual Report on Form 10-K.

Available Information on our Website

Our Internet address is *www.tenneco.com*. We make our proxy statements, annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports, as filed with or furnished to the Securities and Exchange Commission ("SEC"), available free of charge on our website as soon as reasonably practicable after submission to the SEC. Securities ownership reports on Forms 3, 4 and 5 are also available free of charge on our website as soon as reasonably practicable after submission to the SEC.

Our Audit Committee, Compensation Committee, and Nominating and Governance Committee Charters, Corporate Governance Principles, Stock Ownership Guidelines, Audit Committee policy regarding accounting complaints, Code of Ethical Conduct for Financial Managers, Code of Conduct, Policy and Procedures for Transactions with Related Persons, Equity Award Policy, Clawback Policy, Insider Trading Policy, policy for communicating with the Board of Directors, and Audit Committee policy regarding the pre-approval of audit, non-audit, tax and other services are also available free of charge on our website at *www.tenneco.com*. The contents of our website are not, however, a part of this report.

In addition, we will make a copy of any of these documents available to any person, without charge, upon written request to Tenneco Inc., 500 North Field Drive, Lake Forest, Illinois 60045, Attn: General Counsel. We intend to satisfy the disclosure requirements under Item 5.05 of Form 8-K and applicable NYSE rules regarding amendments to, or waivers of, our Code of Ethical Conduct for Financial Managers and Code of Conduct by posting this information on our website.

DESCRIPTION OF OUR BUSINESS

We design, manufacture, market, and distribute innovative products and services for light vehicle, commercial truck, off-highway, industrial, motorsport, and aftermarket customers. Our business consists of four operating segments, Motorparts, Performance Solutions, Clean Air, and Powertrain and serves both OE vehicle designers and manufacturers and the repair and replacement markets worldwide. We supply OE parts to vehicle manufacturers for use in light vehicles, commercial vehicles, and other mobility markets; and the global aftermarket with replacement parts that are sold to wholesalers, retailers, and installers, as well as OES parts to OE customers to support their service channels. Our portfolio of the industry's most well-respected, enduring brands includes Monroe®, Champion®, Öhlins®, MOOG®, Walker®, Fel-Pro®, Wagner®, Ferodo®, Rancho®, Thrush®, National®, and Sealed Power®; and others. We seek to leverage our OE product engineering and development capability, manufacturing know-how, and expertise in managing a broad and deep range of replacement parts to service the aftermarket. We effectively manage the life cycle of a broad range of products to a diverse customer base.

We source various raw materials and component parts for use in our manufacturing processes through the global supply chain. As a Tier 1 parts supplier, we produce individual component parts for vehicles as well as groups of components that are combined as modules or systems within vehicles. These parts, modules, and systems are sold globally to the world's leading light vehicle and commercial truck manufacturers as well as aftermarket customers, including a wide range of distributors, retail parts stores, and mass merchants that distribute our products to professional service providers, "do-it-yourself" consumers, and directly to service chains.

Our Industry

The parts industry for vehicles and engines is generally separated into two categories. We operate in both categories which are: (a) OE parts that are sold in large quantities directly for use by manufacturers of light vehicles, commercial vehicles, and other mobility markets; and (b) "aftermarket" or repair and replacement parts that are sold in varying quantities to wholesalers, retailers, and installers, as well as OES parts sold to OE customers to support their service channels. Light vehicles are comprised of passenger cars and light trucks, which include sport-utility vehicles ("SUVs"), crossover vehicles ("CUVs"), pick-up trucks, vans, and multi-purpose passenger vehicles. Commercial vehicles include commercial trucks, off-highway vehicles and industrial equipment. Other mobility markets include rail, two-wheelers (which includes motorcycles and mountain bikes), and motorsports.

Global OE Industry

Products for the global OE industry are sold directly to OE manufacturers that use these parts, which include components, systems, subsystems, and modules, in the manufacture of new light vehicles, commercial vehicles, rail, two-wheeler, and motorsports. Demand for component parts in the OE market is generally a function of the number of new vehicles/engines produced, which is driven by macroeconomic conditions and other factors such as fuel prices, consumer confidence, employment trends, regulatory requirements, technology trends, and trade agreements. Although OE demand is tied to planned vehicle production, parts suppliers also have the opportunity to grow revenues by increasing their product content per vehicle. Companies, like us, with a global presence, leading technology and innovation; and advanced product, engineering, manufacturing, and customer support capabilities are best positioned to take advantage of these opportunities.

Key Industry Trends Affecting the Global OE Industry

Global Light Vehicle Sales and Production

Our business is directly affected by automotive sales and automotive vehicle production levels. Both depend on a number of factors, including global and regional economic conditions, population growth, public health conditions, and policies. There have been periods of increased market volatility and global economic uncertainty. Most recently, the effects of COVID-19 and shortages of semiconductors has resulted in lower global automotive unit production and 2022 forecasts have been reduced. We expect industry production to remain volatile for the foreseeable future. However, underlying retail sales trends are healthy and inventories in our major geographic markets are below average, which suggest a recovery in light vehicle production will occur once semiconductor availability improves.

In addition, we are experiencing other supply chain challenges, along with the effects of inflation on commodities and other purchases. Further, unfavorable conditions such as a general slowdown of the global or U.S. economy, uncertainty and volatility in the financial markets, or inflation (including labor inflation) and rising interest rates could result in higher operating expenses and project costs for us.

Sourcing by OE Manufacturers and Component Part Number Proliferation

As OE manufacturers expand their reach, many are looking for suppliers with a global footprint and the capability to supply them with full system integration and solutions, rather than individual standalone products.

Because of these trends, OE manufacturers are increasingly seeking suppliers capable of supporting vehicle platforms on a global basis. They want suppliers like us with design, production, engineering, and logistics capabilities that can be accessed not just in North America and Europe but also in other markets such as India and China. OE manufacturers have standardized on global platforms, designing basic mechanical structures suitable for a number of similar vehicle models and are able to accommodate different features across regions. This standardization will drive growth in production of light vehicles designed on global platforms. Accordingly, global platforms, identified as platforms produced in more than one region, are expected to grow. While the overall number of vehicle platforms will consolidate and decrease, the component level complexity to meet the diversified consumer and regulatory requirements around the world is expected to cause component part number proliferation.

As new and existing OE manufacturers look to simplify and streamline design, they are also increasingly selecting suppliers like us that provide fully-engineered, integrated systems, and solutions. OE manufacturers have steadily outsourced more of the design and manufacturing of vehicle parts and systems to simplify the assembly process, lower costs, and reduce development times. Furthermore, they have demanded from their parts suppliers fully integrated, functional modules, and systems made possible with the development of advanced electronics in addition to innovative, individual vehicle components, and parts that may not readily interface together.

Increasing Technologically Sophisticated Content and Vehicle Complexity
As end users and consumers continue to demand vehicles with improved performance, safety, and functionality at competitive prices, the components and systems in these vehicles are becoming technologically more advanced and sophisticated. Mechanical functions are being replaced with electronics, and mechanical and electronic devices are being integrated into single systems. In addition, value added features delivered through software control algorithms and over-the-air updates are becoming more prevalent, creating new avenues for product differentiation and customization.

Enhanced Vehicle Safety and Handling
To serve the needs of their customers and meet government mandates, OE manufacturers are seeking parts suppliers that invest in new technologies, capabilities, and products, which advance vehicle safety and handling, such as roll-over protection systems, advanced suspension technologies, and safer, more durable materials. Suppliers, like us, that are able to offer such innovative products and technologies have a distinct competitive advantage. We offer adjustable and adaptive damping as well as semi-active suspension systems designed to improve vehicle stability, handling, and control.

We also are a global leader in the development of leading friction formulas that improve vehicle stopping distances and performance. As the commercial truck customers migrate to air disc brake systems, we remain at the forefront of providing the brake friction necessary for these new systems.

Many of our aftermarket products directly affect vehicle performance. Product quality, reliability, and consistency are paramount to our end-customers, the majority of whom are professional service technicians. Our engineering expertise and product capabilities from chassis to braking allow us to provide around-the-wheel offering. Additionally, we have a number of braking products including disc pads for passenger cars, motorcycles, and commercial vehicles; drum brake shoes and linings for commercial vehicles; and brake accessories including rotors, drums, hydraulics, hardware, and brake fluid.

Advanced Suspension, Autonomous Driving, and Shared Mobility
There is a growing demand for autonomy and new mobility services. A number of trends are driving "Auto 2.0," defined as the transformation of cars into hybrid systems, fully-electric and autonomous vehicles, the consumer shift from individual car ownership to ride-sharing, and multi-modal forms of mobility.

We expect higher levels of autonomy will drive increased passenger expectations for a comfortable ride, which, in turn, will create additional content opportunities per vehicle and heighten demand for advanced suspension technology products, including full-corner/around-the-wheel intelligent suspension systems and broader motion management solutions. Advanced suspension technology is expected to grow with adoption led by existing and emerging global OE manufacturers. Increased connectivity also presents additional prospects for active suspension systems, predictive vehicle diagnostics, and system-based integration within the vehicle as well as broader vehicle to everything ("V2X") communications. The Öhlins portfolio is expected to continue to accelerate the development of advanced suspension technology solutions, while also fast-tracking time to market. Öhlins also enhances our portfolio in broader mobility markets through a range of premium OE and aftermarket automotive and motorsports performance products.

The electrification of vehicles continues to expand, driven by government regulations, as well as a shift in consumer mobility options from individual mobility to shared mobility. Shared mobility describes a range of transportation options that involve the shared use of a vehicle, motorcycle, scooter, bicycle or other means of travel; it provides users with short-term access to transportation on an as-needed basis. Shared mobility may reduce vehicle volumes in established markets, but it also provides an opportunity for us to develop higher-mileage, durable solutions to meet the needs of new mobility fleets, as well as aftermarket replacement solutions and services. Additionally, ride comfort will become an important differentiator in the future.

Focus on Fuel Efficiency Improvements and Powertrain Evolution, including Electrification
Continued evolution and focus on climate change and environmental sustainability by consumers and governments worldwide is increasing the expectations for the auto industry to develop more fuel-efficient and reduced emissions solutions. Various jurisdictions around the world have announced plans to limit the production of new diesel and gasoline powered vehicles in the future. Major vehicle manufacturers have announced their intention to reduce and phase out production of diesel and gasoline powered vehicles during the next two decades. However, for the foreseeable future, it is expected that the majority of the powertrains for light and commercial vehicles will be gasoline and diesel engines (including hybrids, which combine a battery electric drive with a combustion engine). While we see similar electrification trends for light vehicle and commercial vehicle in the long-term, we expect light vehicles will experience those trends in advance of commercial vehicles. We expect to monitor those trends and adopt our business strategy accordingly.

The evolution of alternative powertrain technology, including the increased adoption of fully electric and hybrid powertrains, will also create further opportunities for increased ride performance and NVH capabilities, as consumers look for smoother, quieter, and more efficient rides. Engine downsizing and hybridization will lead to a proliferation of NVH requirements per platform as road noise and other NVH properties that were once masked by engine noise become more apparent to consumers. Furthermore, fully electric vehicles ("EVs") will likely have a suite of fundamentally different NVH, braking, and ride performance requirements. Our capabilities in the suspension, braking, and NVH performance materials categories provide the opportunity to develop solutions to maximize driving comfort, ride performance, and motion management for consumers worldwide in the increasing electrification and hybridization of the global vehicle fleet.

The demand for smaller but more powerful engines requires more technology per engine to withstand the higher output requirements and reduce friction, which we estimate will result in an increase in content per engine for our powertrain business. With a global manufacturing presence, we believe we are well-positioned to meet expectations of our global customers.

Commercial Vehicles

Our business is also directly affected by commercial vehicle sales and production levels. Both of these depend on a number of factors, including global and regional economic conditions, population growth, public health conditions, and policies. In addition, regulations have been adopted to regulate tailpipe emissions of criteria pollutants and greenhouse gasses such as carbon dioxide, as well as brake dust emissions and copper content. Reducing carbon-dioxide ("CO_2") emissions requires improving fuel economy; as a result, improved combustion efficiency and reduction of vehicle mass have become priorities. The products our clean air segment provides reduce the tailpipe emissions of criteria pollutants. As a leading supplier of clean air systems and friction materials with strong technical capabilities in both areas, we believe we are well positioned to benefit from the more rigorous environmental standards being adopted around the world. Current regulations in the developed markets are being adopted in the developing markets and should increase content opportunities for our business in the medium-term.

Global Aftermarket Industry

Products for the global aftermarket are sold directly to a wide range of distributors, retail parts stores, and mass merchants that distribute these products to professional service providers, "do-it-yourself" consumers, and directly to service chains, as well as OES parts sold to OE customers to support their service channels. Demand for aftermarket products historically has been driven by four primary factors:

i. the number of vehicles in operation ("VIO");
ii. the average age of VIO;
iii. vehicle usage trends, including miles driven and gasoline consumption; and
iv. component replacement and wear rates.

These factors, while applicable in all regions, vary depending on the composition of VIO and other factors.

Key Trends affecting the Global Aftermarket Industry

Global Growth of Vehicles in Operation, Average Vehicle Age, and Vehicle Usage Trends

With increased age and usage, vehicles become subject to maintenance, repair, and component part replacement thereby increasing the overall demand for aftermarket parts. The global number of VIO is expected to grow, with the number of VIO in other markets such as China expected to increase significantly. The number of VIO in mature markets, such as North America and Europe is expected to grow, but to a much lesser extent in Europe. We have strong aftermarket positions in North America, Europe, and South America and a growing aftermarket position in Asia. We expect there to be aftermarket growth opportunities in emerging markets such as China and India where the VIO are expected to increase. We are positioning ourselves to capitalize on this growth by leveraging our industry renowned brands and market-leading capabilities to develop the distributor base, drive brand recognition, increase product coverage, and build the supply chain in emerging growth markets.

Non-Branded Private Labels

We have some of the strongest and most recognized brands in the automotive aftermarket. We will continue to invest in product innovation, marketing, and brand support that differentiates our premium branded products for their quality and performance while also supporting lower priced, mid-grade offerings. Additionally, we will continue to drive productivity and cost reduction efforts and enhance our already strong global sourcing capabilities to remain competitive in each product tier.

Retailers or wholesale distributors creating private label brands still rely on established suppliers to design and manufacture their private label products and, in some cases, utilize co-branding to support their private label offerings. We intend to selectively continue to co-brand with private label distributors where it can help to strategically grow our branded products portfolio.

Supply Chain Velocity and Distribution Capability
Efficient distribution capabilities are essential as the aftermarket industry works to balance product availability with overall inventory in the ecosystem. Installers expect the right product to be available at the right time and the need for fast, predictable local parts delivery is growing as consumers' expectations for quick, high quality service increase. In addition, we are seeing the developing aftermarket augment traditional distribution and service models with real-time scheduling through personalized internet applications. We are adjusting our fulfillment models to optimize this complexity and better align and synchronize with our customers and supply base to reduce non-value add steps, time, and distance in our value chain. We are also engaging with key customers to jointly optimize product availability and delivery.

The increasing global vehicle population, brand and vehicle complexity, and need for rapid new part introduction, as well as new distribution channels (including e-commerce) continue to drive significant stock keeping unit ("SKU") proliferation and business complexity. Our recent investments in our supply chain and information technology capabilities are designed to manage this complexity, which we believe will be an important competitive differentiator.

Channel Consolidation
In the more mature markets of North America and Europe, there has been increasing consolidation in the aftermarket distribution channel with larger aftermarket distributors and retailers gaining market share. These distributors generally require larger, more capable suppliers that have the ability to provide world-class product expertise, category management capabilities, brand management, and supply chain support, as well as a competitive manufacturing and sourcing network. We have undertaken many initiatives to enhance the value of our branded products to end-market consumers and diversify our revenue base.

Growth of e-Commerce Capabilities and Changing Consumer Decision Making
Reaching end-customers, which include professional service providers, technicians, and "do-it-yourself" consumers, directly through online and mobile application capabilities, including e-commerce, is expected to have an increasing effect on the global aftermarket industry and how aftermarket products are marketed and sold. The establishment of a robust online presence will be critical for suppliers regardless of whether they intend to participate directly in e-commerce. We invested heavily in e-commerce initiatives to improve our capabilities and connectivity to our end-customers, including a new online order management system, customer relationship management tools, global brand websites, and data analytics capabilities. We will continue to invest in these competencies.

Additionally, consumers increasingly are utilizing online research prior to making buying or repair decisions. We will continue to expand our online presence in order to connect with our customers and more effectively communicate the value of our premium aftermarket brands.

Resilience during Economic Downturn
Aftermarket products are largely stable, non-discretionary, and less susceptible to cyclicality as customers often have no choice but to replace automotive parts that are worn. During the 2008 economic downturn, the number of consumers with the ability to purchase new vehicles declined and led to increased demand for aftermarket parts in order to keep older vehicles road-worthy. During 2020 the COVID-19 global pandemic, we also experienced expanded demand from "do-it-yourself" consumers and e-commerce, which partially offset the short-term demand decline due to lockdowns and travel restrictions.

Customers
We strive to develop long-standing business relationships with our customers around the world. We work collaboratively with our OE customers in all stages of production and post production service, including design, development, component sourcing, quality assurance, manufacturing, and delivery. For both OE and aftermarket customers, we provide timely delivery of quality products at competitive prices and deliver customer service. With our diverse product mix and numerous facilities in major markets worldwide, we believe we are well positioned to meet customer needs.

Our OE customers consist of automotive and commercial vehicle manufacturers as well as agricultural, off-highway, two-wheel, marine, railroad, aerospace, high performance, and power generation and industrial application manufacturers. We have well-established relationships with substantially all major American, European, and Asian automotive OE manufacturers. In automotive, legacy OE customer consolidation continues to occur and could increase our exposure to certain customers in the future.

The following customers each accounted for 10% or more of our net sales in any of the last three years.

Customer	2021	2020	2019
General Motors Company	11 %	11 %	11 %
Ford Motor Company	10 %	10 %	10 %

Our aftermarket customers include a wide range of distributors that redistribute products to local parts suppliers, distributors, engine rebuilders, retail parts stores, e-commerce retailers, mass merchants, and service chains. The breadth of our product lines, the value of our reputable brands, the strength of our leading marketing expertise, a sizable sales force, and supply chain and logistics capabilities are central to our success in the aftermarket. We have a large and diverse aftermarket customer base.

Competition

We operate in highly competitive markets. Customer loyalty is a key element of competition in these markets and is developed through long-standing relationships, customer service, high quality value-added products, and timely delivery. Product pricing and services provided are other important competitive factors.

As a supplier of OE and aftermarket parts, we compete with vehicle manufacturers, some of which are also customers of ours, and numerous independent suppliers. We believe we are meeting these competitive challenges by developing leading technologies, strengthening our brand proposition, efficiently integrating and expanding our manufacturing and distribution operations, optimizing our product coverage within our core businesses, restructuring our operations and transferring production to best cost countries, and utilizing our worldwide network of technical centers to develop and provide value-added solutions to our customers.

Seasonality

Our businesses are somewhat seasonal. OE production is historically higher in the first half of the year compared to the second half. It typically decreases in the third quarter due to OE plant shutdowns for model changeovers and European holidays, and softens further in the fourth quarter due to reduced production during the end-of-year holiday season in North America and Europe. Shut-down periods in the rest of the world generally vary by country. Our aftermarket operations experience relatively higher demand during the spring as vehicle owners prepare for the summer driving season. While seasonality does affect our business, actual results may vary from the above trends due to global and local economic dynamics; global pandemics; as well as industry-specific platform launches and other production-related events.

Order Fulfillment

For OE customers, we generally receive long-term production contracts for specific products supplied for particular vehicles with target volumes. These supply relationships typically extend over the life of the related vehicle, subject to interim design and technical specification revisions. In addition to customary commercial terms and conditions, long-term production contracts generally provide for annual price adjustments based upon expected productivity improvements, material price variation, and other factors. OE customers typically retain the right to terminate agreements due to changing business conditions, but they generally cannot terminate agreements given development cycles and change costs. OE order fulfillment is typically manufactured in response to customer purchase order releases, as we ship directly from a manufacturing location to a customer for use in vehicle production and assembly. Accordingly, our manufacturing locations turn finished goods inventory relatively quickly, producing from on-hand raw materials and work-in-process inventory within relatively short manufacturing cycles. Risks to us include a change in vehicle production, lower than expected vehicle or engine production by one or more of our OE customers, or termination of the business based upon perceived or actual shortfalls in delivery, quality or value.

For our global aftermarket customers, we generally establish arrangements that encompass substantially all parts offered within a particular product line. In some cases, we will enter into agreements with terms ranging from one to three years that cover one or more product lines. Pricing is market responsive and subject to adjustment based upon competitive pressures, material costs, and other commercial factors. Typical price adjustments occur on an annual basis as part of the product line reviews or as environmental factors dictate. Global aftermarket order fulfillment is largely performed from finished goods inventory stocked in our regional distribution centers. Inventory stocking levels in our distribution centers are established based upon historical and anticipated future customer demand, adjusted for lead times, demand variability, and target service levels.

Although customer programs typically extend to future periods, and although there is an expectation we will supply certain levels of OE production over such periods, we believe outstanding purchase orders and product line arrangements do not constitute firm orders. Firm orders are limited to specific and authorized customer purchase order releases placed with our manufacturing and distribution centers for actual production and order fulfillment. Firm orders are typically fulfilled as promptly as possible after receipt from the conversion of available raw materials and work-in-process inventory for OE orders and from current on-hand finished goods inventory for aftermarket orders.

Motorparts Segment

Our Motorparts segment operates 16 manufacturing sites, of which 7 facilities are located in North America, 3 in Europe, 3 in South America, and 3 in Asia Pacific. It also operates 29 distribution centers and warehouses; 6 engineering and technical centers; and 10 various technical training service centers worldwide. Motorparts shares engineering testing facilities with our Performance Solutions segment.

Motorparts designs, manufactures, markets, and distributes leading, brand-name products to a diversified and global aftermarket customer base. Within the business, Motorparts has many of the most recognized brands in the automotive industry, including Monroe®, Champion®, Öhlins®, MOOG®, Walker®, Fel-Pro®, Wagner®, Ferodo®, Rancho®, Thrush®, National®, Sealed Power®, and others. We believe our brand equity in the aftermarket is a key asset especially as customers consolidate and distribution channels converge with many of our brands leading their product categories. We are dedicated to being stewards of these brands and continually strengthening their equity through robust marketing programs. Motorparts products are organized across the following seven categories:

Product	Description
Shocks and struts	Shock absorbers, strut assemblies, bare strut, coil springs, top mounts, and ride control accessories.
Steering and suspension	Control arms, ball joints, tie rod ends, wheel bearings, sway bar links and hub assemblies.
Braking	Pads, rotors, drums, and fluids.
Sealing	Head gaskets, valve cover gaskets, oil seals, and other gaskets.
Engine	Pistons, piston ring set, engine bearings, liners, and pumps.
Emissions control	Catalytic converters, exhaust manifolds, exhaust pipes, and mufflers.
Maintenance	Spark plugs, air filters, oil filters, cabin air filter, forward lighting, batteries, headlamps, and chemicals.

Performance Solutions Segment

Our Performance Solutions segment operates 47 manufacturing facilities worldwide, of which 11 facilities are located in North America, 17 in Europe, 2 in South America, and 17 in Asia Pacific; and 15 engineering and technical facilities. Within these manufacturing facilities, we operate 6 joint ventures in which we hold a controlling interest. Performance Solutions shares engineering testing facilities with our Motorparts segment.

Performance Solutions designs, manufactures, markets, and distributes a variety of performance solutions and systems to a global OE customer base, including NVH performance materials, AST, ride control, braking, and systems protection. In addition to automotive light vehicles and commercial vehicles, Performance Solutions also services a wide range of other mobility markets such as rail, two-wheelers (which includes motorcycles and mountain bikes), and motorsports.

The following table sets forth a description of the product lines sold by our Performance Solutions segment:

Product	Description
NVH performance Materials	Highly engineered NVH isolation technology and value-added products for light vehicle and commercial vehicle markets.
AST	Advanced passive and semi-active suspension with tuning support and controls capability for the light vehicle, two-wheel and motorsports markets.
Ride control	Providing conventional shocks, struts, and dampers with value-added tuning solutions for the light vehicle and commercial vehicle markets.
Systems protection	Systems protection products include protection sleeves for wire harness and for oil and water tubes as well as acoustic and EMI/RFI shielding, heat and abrasion protection, and safety/crash protection for cables and tubes for engines and cars.
Braking	Friction materials, including cutting edge formulations for the light vehicle, commercial vehicle, and rail markets.

Clean Air Segment

Our Clean Air Segment operates 65 manufacturing facilities worldwide, of which 16 facilities are located in North America, 21 in Europe, 2 in South America, and 26 in Asia Pacific; and operates 8 engineering and technical facilities. Within these manufacturing facilities in Asia Pacific, we operate 9 joint ventures in which we hold a controlling interest.

Clean Air designs, manufactures, markets, and distributes a variety of clean air products and systems designed to reduce pollution and optimize engine performance, acoustic tuning, and weight on a vehicle. Vehicle emission control products and systems play a critical role in safely conveying noxious exhaust gases away from the passenger compartment and reducing the level of pollutants and engine exhaust noise emitted to acceptable levels. Precise engineering of the exhaust system - which extends from the manifold that connects an engine's exhaust ports to an exhaust pipe, to the catalytic converter that eliminates pollutants from the exhaust, and to the muffler that modulates noise emissions - leads to a pleasantly tuned engine sound, reduced pollutants, and optimized engine performance.

The following table sets forth a description of the product lines sold by our Clean Air segment:

Product	Description
Catalytic converters and diesel oxidation catalysts	Devices consisting of a substrate coated with precious metals enclosed in a steel casing used to reduce harmful gaseous emissions such as carbon monoxide.
Diesel particulate filters (DPFs)	Devices to capture and regenerate particulate matter emitted from diesel engines.
Burner systems	Devices which actively combust fuel and air inside the exhaust system to create extra heat for DPF regeneration, or to improve the efficiency of selective catalytic reduction ("SCR") systems.
Lean NOx traps	Devices which reduce nitrogen oxide (NOx) emissions from diesel powertrains using capture and store technology.
Hydrocarbon vaporizers and injectors	Devices to add fuel to a diesel exhaust system in order to regenerate particulate filters or Lean NOx traps.
SCR systems	Devices which reduce NOx emissions from diesel powertrains using urea mixers and injected reductants such as Verband der Automobil industrie e.V.'s AdBlue® or Diesel Exhaust Fluid (DEF).
SCR-coated diesel particulate filters (SDPF) systems	Lightweight and compact devices combining the SCR catalyst and the particulate filter onto the same substrate for reducing NOx and particulate matter emissions.
Urea dosing systems	Systems comprised of a urea injector, pump, and control unit, among other parts, that dose liquid urea onto SCR catalysts.
Four-way catalysts	Devices that combine a three-way catalyst and a particulate filter onto a single device by having the catalyst coating of a converter directly applied onto a particulate filter.
Alternative NOx reduction technologies	Devices which reduce NOx emissions from diesel powertrains, by using, for example, alternative reductants such as diesel fuel, E85 (85% ethanol, 15% gasoline), or solid forms of ammonia.
Mufflers and resonators	Devices to provide noise elimination and acoustic tuning.
Fabricated exhaust manifolds	Components that collect gases from individual cylinders of a vehicle's engine and direct them into a single exhaust pipe. Fabricated manifolds can form the core of an emissions module that includes an integrated catalytic converter (maniverter) and/or turbocharger.
Pipes	Utilized to connect various parts of both the hot and cold ends of an exhaust system.
Hydroformed assemblies	Forms in various geometric shapes, such as Y-pipes or T-pipes, which provide optimization in both design and installation as compared to conventional pipes.
Elastomeric hangers and isolators	Used for system installation and elimination of noise and vibration, and for the improvement of useful life.
Aftertreatment control units	Computerized electronic devices that utilize embedded software to regulate the performance of active aftertreatment systems, including the control of sensors, injectors, vaporizers, pumps, heaters, valves, actuators, wiring harnesses, relays and other mechatronic components.

For the catalytic converters, SCR systems, and other substrate-based devices we sell, we need to procure substrates coated with precious metals or purchase the complete systems in the case of catalytic converter systems. We obtain these components and systems from third parties, often at the OE manufacturer's direction, or directly from OE vehicle and engine manufacturers. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" for more information on our sales of these products.

Powertrain Segment

Our Powertrain Segment operates 68 manufacturing sites worldwide, of which 19 facilities are located in North America, 28 are located in Europe, 4 are located in South America, and 17 in Asia Pacific; and operates 9 engineering and technical facilities. Within these manufacturing facilities, we operate 17 joint ventures in which we hold a controlling interest. Powertrain has also invested globally in nonconsolidated affiliates that have multiple manufacturing sites, primarily in China, Turkey, and the United States ("U.S.").

Powertrain designs, manufactures, markets, and distributes a variety of powertrain products and systems. Powertrain offers its customers a diverse array of market-leading products for OE applications, including pistons, piston rings, piston pins, cylinder liners, valvetrain products, valve seats and guides, ignition products, dynamic seals, bonded piston seals, combustion and exhaust gaskets, static gaskets and seals, engine bearings, industrial bearings, and bushings and washers. In addition, Powertrain supplies OES parts to OE customers to support their service and distribution channels.

The following table sets forth a description of the product lines sold by our Powertrain segment:

Product	Description
Pistons	Pistons convert the energy created by the combustion event into mechanical energy to drive a car; Pistons can be made from aluminum or steel, both casted and forged; Highly efficient engines impose high demands on pistons in terms of rigidity and temperature resistance.
Piston rings	Piston rings are mounted on the piston to seal the combustion chamber while the piston is moving up and down; Modern rings need to resist high temperature and very abrasive environments without significant wear; Rings are critical for low oil consumptions.
Cylinder liners	Cylinder liners, or sleeves, are specially engineered where surfaces formed within the engine block, working in tandem with the piston and ring, as the chamber in which the thermal energy of the combustion process is converted into mechanical energy.
Valve seats and guides	Valve seats and guides are produced from powdered metal based on sophisticated metal-ceramic structures to meet extreme requirements for hardness.
Bearings	Bearings provide the low-friction environment for rotating components like crankshafts and camshafts; Modern bearings are able to deal with very low viscosity oil even in highly repetitive motions like in stop/start-conditions.
Spark plugs	Modern spark plugs for engines fueled by gasoline or natural gas have to ignite fuel even at very high combustion pressure and with very clean fuel-air mixture - combined with extended life expectation well over 100,000 miles for turbo-charged engines.
Valvetrain products	Valvetrain products include mainly engine valves but also retainers, rotators, cotters, and tappets for use in both diesel and gas engines; the most demanding applications require sodium-filled hollow valves for fast heat dissipation.
Seals and gaskets	Cylinder-head gaskets and other hot and cold gaskets are sealing engines and engine components; dynamic and static seals protecting rotating engine and transmission components against oil and gas leakages. Such seals and gaskets are made from high-alloyed steel as well as from sophisticated rubber and polymers.

Sales, Marketing and Distribution

We have separate and distinct sales and marketing efforts for our OE and aftermarket customers.

For OE sales, our sales and marketing team is an integrated group of sales professionals, including skilled engineers and program managers, who are organized globally by customer business unit and product type (e.g., Performance Solutions, Clean Air, and Powertrain). Our sales and marketing teams are focused on meeting and exceeding our customer's needs by delivering engineered products and services on time; maximizing profit for our investors while financing continued growth and product development; and developing a common system approach to create a superior customer experience. Our teams provide the appropriate mix of operational and technical expertise needed to interface successfully with OE manufacturers. Our business capture process involves targeting select programs and working closely with the OE manufacturer platform engineering and purchasing teams. Bidding on OE automotive platforms typically encompasses many months of engineering and business development activity. Throughout the process, our sales team, program managers, and product engineers assist the OE customer in defining the project's technical and business requirements. A normal part of the process includes our engineering and sales personnel working on customers' integrated product teams, creating a statement of requirements, and assisting our customers with full system or component design and development concepts that deliver on expectations and create value for OE manufacturer customers. Given that Performance Solutions, Clean Air, and Powertrain operations typically involve long-term production contracts awarded on a platform-by-platform basis, our strategy is to leverage our engineering expertise and strong customer relationships to target and win new business and increase operating margins.

For aftermarket sales and marketing, our sales force is generally organized by region and customer and covers multiple product lines. We sell aftermarket products through five primary channels of distribution: (1) traditional three-step distribution system of full-line warehouse distributors, jobbers, and service providers; (2) two-step distribution system of warehouse distributors that distribute directly to the service providers; (3) direct sales to retailers; (4) direct sales to service provider chains; and (5) direct sales through e-commerce channels. Our aftermarket sales and marketing representatives cover all levels of the distribution channel, stimulating interest in our products and helping our products move through the distribution system. Also, to generate demand for our products, we run print, online, outdoor advertisements, digital advertising and social media, as well as training conducted by our field sales force and e-training courses. In addition, we maintain detailed websites for certain of our brands.

Business Strategy

We are a leading diversified, global supplier of innovative products and services to light vehicle, commercial truck, off-highway, industrial, and aftermarket customers. Our strategy focuses on addressing the evolving needs of our OE and aftermarket customers around the world to drive growth. The key components of our business strategy are described below:

Continue to optimize operational performance by aggressively pursuing cost competitiveness in all business segments and continuing to drive cash flow generation and meet capital allocation objectives
As we continue to expand our distribution and service capabilities globally, we seek to continue optimizing our performance through enhanced efficiencies in order to meet the world-class delivery performance our customers increasingly require. We have made and will continue to make investments in our global distribution network to optimize our manufacturing and fulfillment footprint and manage complexities of our supply chain. By achieving efficiency gains and cost competitiveness, we strive to generate strong cash flow and meet our capital allocation objectives, including deleveraging our balance sheet.

From a design perspective, we will bring a lean mindset to our portfolio to ensure standardization, remove redundancies, focus on our core business, reduce transit costs, leverage economies of scale, and optimize manufacturing productivity. We will also continually look for ways to innovate and leverage cross- and up-sell opportunities to the market through a customer-centric product development process. From a manufacturing perspective, we will maintain a continuous improvement philosophy by streamlining plant operations and our network, and executing projects to improve efficiency.

Serving our customers also requires that we compete effectively at the unit cost level, in particular with OE customers. We are making concerted and systematic efforts to continuously improve our position on the cost curve for each of our component part categories including deploying value stream simplification principals. In doing so, we will continue to be a preferred supplier to our customers.

We will be mindful of the changing market conditions that might necessitate adjustments to our resources and manufacturing capacity around the world.

Pursue focused transactional opportunities, consistent with our capital allocation priorities, product line enhancements, technological advancements, geographic positioning, penetration of emerging markets and market share growth
Throughout our history, we have successfully identified and capitalized on acquisitions, alliances, and divestitures to achieve strategic growth and alignment. Through these transactions, we have (1) expanded our product portfolio with complementary technologies; (2) realized incremental business from existing customers; (3) gained access to new customers; (4) achieved leadership positions in geographic regions outside North America; and (5) re-focused on areas that will contribute to our profitable growth.

We intend to continue to explore strategic alliances, joint ventures, acquisitions, divestitures, and other transactions that complement, expand, enhance or realign our existing products, technology, systems development efforts, customer base and/or global presence. We are committed to developing a broader ecosystem-based approach that allows us to work with new and existing customers, suppliers, and entrants to provide timely and leading-edge solutions across the mobility market. We will align with companies that have proven products, proprietary technology, advanced research capabilities, broad geographic reach, and/or strong market positions to further strengthen our product leadership, technology position, global reach, and customer relationships.

Adapt cost structure to economic realities
We aggressively respond to difficult economic environments, aligning our operations to any resulting reductions in production levels and replacement demand and executing comprehensive restructuring and cost-reduction initiatives. Suppliers must continually identify and implement product innovation and cost reduction activities to fund customer annual price concession expectations in order to retain current business as well as to be competitively positioned for future new business opportunities.

Original Equipment Specific Strategies
The converging forces of connectivity, autonomy, electrification, and shared mobility are spawning a new age of automotive autonomy and a unique opportunity to position our business for significant growth and profitability. We strive to strengthen our global position by designing, manufacturing, delivering, and marketing technologically innovative products and solutions for OE manufacturers. The key components of our OE strategy are described below:

Capitalize on our breadth of technology, differentiated products, and global reach to support and strengthen relationships with existing and emerging OE customers across the world
We conduct business with nearly all of the major automotive OE customers around the world. Within the highly competitive automotive parts industry, we seek to extend the significant advantages that come from our world-class global manufacturing, engineering and distribution footprint, and global sourcing capabilities. This footprint enables the design, production, and delivery of premium parts emphasizing quality, safety, and reliability virtually anywhere in the world and also supports the continual innovation of new products, technologies, and solutions for new and existing OE customers.

Maintain technological leadership to drive further growth from current market trends
In order to maintain our strong market positions, we are focused on meeting changing performance requirements and keeping up with emerging OE trends such as connectivity, autonomy, shared mobility, and electrification. In pursuit of delivering the ideal ride characteristics for any application, our performance solutions division will leverage its innovative technology, NVH performance materials, differentiated products, and advanced system capabilities to provide innovative solutions. Aligning product lines and technical capabilities creates an ideal foundation to meet changing performance requirements for comfort and safety and again ultimately reinventing the ride of the future. The 2019 acquisition of Öhlins will continue to accelerate the development of advanced technology suspension solutions, while also fast-tracking time to market. That acquisition is yet another example of our strategy to leverage key technologies that will better position us to take advantage of secular trends. It also enhances our portfolio in broader mobility markets through the addition of Öhlins' range of premium OE and aftermarket automotive and motorsports performance products. In addition, our suite of mobility solutions under development represents an opportunity to drive greater partnership with OE manufacturers and broader mobility ecosystem players, creating and capturing value, and growth with higher value content per vehicle.

OE manufacturers are responding to changing end customer trends and preferences alongside their own challenging cost structures by reducing design and production complexities and investing in advanced technologies that enable vehicle electrification and autonomy. We anticipate that OE suppliers with high technology capabilities in vehicle system integration will be able to enable a more seamless transition to next-generation electric vehicles and become preferred suppliers to OE manufacturers. Though many vehicle and customer requirements will evolve, we believe one of the remaining characteristics that will continue to provide differentiated experience and value in the future of mobility is the ride experience. By leveraging our deep component level expertise as well as working with partners across the broader mobility ecosystem, our intent is to lead in the next generation development of motion management products, systems and solutions to engineer the ideal ride for any customer.

Invest in applications that benefit from global light vehicle battery electric vehicle (BEV) adoption
We continually assess our growth investment priorities. Industry forecasts project global light vehicle BEV penetration rates to increase steadily in the current decade. In response, we have prioritized investments in light vehicle product lines and applications that have content growth opportunities in light vehicle BEV and are agnostic to an anticipated increase in adoption rates.

Penetrate adjacent market segments
We seek to penetrate a variety of adjacent sales opportunities and achieve growth in higher-margin businesses by applying our design, engineering and manufacturing capabilities. For example, we aggressively leverage our technology and engineering leadership in Motorparts, Performance Solutions, Clean Air, and Powertrain into adjacent sales opportunities for commercial trucks, buses, agricultural equipment, construction machinery, and other vehicles in other regions around the world.

We design and launch clean air products for commercial vehicle customers such as Caterpillar, John Deere, Navistar, Deutz, Daimler Trucks, Scania, Weichai Power, FAW Group, and Kubota. We also engineer and build modular NOx-reduction systems for large engines that meet standards of the International Maritime Organization, among others.

Aftermarket Specific Strategies
Our aftermarket business strategy incorporates a go-to-market model that we believe differentiates us from our competitors and creates structural support for sustained revenue growth. The model is designed to drive revenue growth by capitalizing on three of our key competitive strengths: a leading portfolio of products and brands; extensive global manufacturing, distribution and service capabilities; and market intelligence gathered from our distributors, installers, and consumers.

We expect this distinctive go-to-market model will result in a sustainable competitive advantage, particularly as the industry trends previously mentioned disrupt the traditional aftermarket landscape and business practices. We expect the demand for replacement parts to increase as a result of the increase in the average age of VIO and the increase in the average miles driven per year. The characteristics of aftermarket sales and distribution are defined regionally, which require localized strategies to address the key success factors of our customers. The key components of our aftermarket strategy are described below:

In the second quarter of 2020, the Motorparts segment initiated a rationalization of its supply chain and distribution network to achieve supply chain efficiencies and improve throughput to its customers. As a result, it was determined that certain assets including inventory, real estate, and personal property, would no longer be utilized. As part of our ongoing efforts related to this initiative, during the year ended December 31, 2021, the Motorparts segment recognized a non-cash charge of $44 million to write-down inventory to its net realizable value, a $1 million impairment charge to write-down property, plant, and equipment, and $3 million in restructuring charges related to cash severance benefits and other costs. During the year ended December 31, 2020, the Motorparts segment recognized an $82 million non-cash charge to write-down inventory to its net realizable value, a $16 million impairment charge to write-down property, plant, and equipment to its fair value, and a $9 million impairment charge to its operating lease right-of-use assets. Additionally, the Motorparts segment recognized $4 million in restructuring charges during the year ended December 31, 2020 related to cash severance expected to be paid in connection with this action.

Leverage the strength of our global aftermarket leading brand positions, product portfolio and range, marketing and selling expertise, and distribution and logistics capabilities for global growth
We are well-positioned to capitalize on aftermarket trends and expand in mature markets (e.g. North America, Europe, and Australia) as well as high-growth regions (i.e. China, South America, India, and Southeast and Northeast Asia). Important factors enabling our growth strategy include our brand strength, broad product portfolio and range, sales and marketing expertise, supply chain, and distribution capability. In addition, we also strive to maintain very close relationships with our customers and help position them for success.

Our aftermarket business includes multiple leading brands with strong product offerings. Our portfolio includes the industry's most well-respected and enduring brands. We will leverage our go-to-market model to build upon our brand strengths and grow our global aftermarket business by consistently delivering differentiated benefits, by growing our brand equity among our target end-customers, and by leveraging our broad product coverage and extensive distribution network. We are dedicated to being stewards of these brands and continually strengthening their equity through robust marketing programs. We are also focusing on leveraging our market connectivity to drive innovative solutions in both products and service to support or channel partners.

Continue to strengthen our aftermarket capabilities and product offerings in mature markets, including North America and Europe
The scale of our aftermarket business allows for strong distribution channels that significantly enhance our go-to-market capabilities across mature markets in North America and Europe. We continually rationalize our already strong distribution networks with the goal of improved customer service at a lower cost. This is achieved by continually harnessing and leveraging market intelligence, and sharing information with our channel partners to drive best practices in go-to-market, manufacturing and distribution processes.

The North America and Europe go-to-market capabilities will be defined by positioning our distribution and installer partners for success. We believe this will require maintaining an extensive catalog of products to provide the ability to address customer requirements quickly and easily. Managing a large and complex catalog of products requires an understanding of the composition of the car parc within the regions including wear patterns, typical replacement rates based on weather, road quality, and average miles driven annually. These compositions differ significantly by region, which will affect the range and frequency of replacement part requirements. The understanding of these regional dynamics will help us provide the right parts when they are needed and achieve the industry's best "Order to Delivery" times. We will continue to innovate product solutions that will be cost competitive and reliable, reduce install time, reduce the number of unique parts that installers need to inventory on-site, reduce the number of unique installer tools and equipment required, and improve installer safety.

In addition to having a comprehensive product offering, we also strive to maintain very close relationships with our customers and help position them for success. We have a series of "Tech First" initiatives to provide online, on demand, and onsite technical training and support to vehicle repair technicians who use and install our products in North America, Europe, and China and plan to expand into South America. This includes a network of Garage Gurus™ technical support centers that provide some of the most comprehensive training programs in the industry to educate our partners and customers with emerging vehicle technologies and vehicle repair operational skills. We believe it is key to our strategy to provide aftermarket parts that are simple to install and to make sure our customers have the resources to know how to install these parts properly. In having the right products and resources for our customers, we believe we will continue to be a preferred aftermarket supplier and continue to drive growth in the Americas and emerging economic areas.

Increase aftermarket position in high-growth regions, notably in Asia Pacific
The Asia Pacific region, particularly the high-growth markets of China and India, presents a significant opportunity for us to expand our business. We have made investments in distribution and in our sales force in both China and the rest of Asia to help drive growth in this increasingly important region. We must take into account the different operational requirements in Asia Pacific in order to drive aftermarket growth in this region.

The Asia Pacific light vehicle and commercial vehicle aftermarket industry is fragmented with a large number of small distributors and installers that require different strategies and solutions than more mature consolidated markets. Distribution in smaller volumes will require us to utilize a unique approach, as compared to the approach in mature markets, in order to compete on the basis of optimal "Order to Delivery" timeliness while maintaining a broad range of products.

Additionally, buying online is the preferred purchase method for many smaller distribution and installer partners. The sophistication of the existing online marketplaces in Asia Pacific will require us to develop adaptive and flexible omnichannel tools in order to compete effectively. We believe that developing a competitive online platform for our Asia Pacific customers will be the foundation for us to build a digital platform that will improve our competitiveness globally.

Environmental Matters
For additional information regarding environmental matters, see Item 3, "Legal Proceedings," Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations — Environmental Matters" and Note 13, "Commitments and Contingencies" of the consolidated financial statements included in Item 8, "Financial Statements and Supplementary Data."

Human Capital Resources
Employees
Our employees set the foundation for our ability to achieve our strategic objectives. As of December 31, 2021, we had approximately 71,000 employees with approximately 42% located in the Americas, 38% located in EMEA and 20% located in China and Asia Pacific. As of December 31, 2021, approximately 62% of our employee base was covered by collective bargaining agreements. With the exception of two facilities in the U.S., most of our unionized manufacturing facilities have their own contracts with their own expiration dates and, as a result, no contract expiration date affects more than one facility. Management believes that employee relations are favorable.

Safety, Health and Wellness
The health and safety of our employees and anyone who enters our workplace is of utmost importance to us. Our commitment to environmental, health, and safety applies to all of our locations and all leadership levels within the organization. We utilize a robust tool kit of programs to achieve our health and safety goals.

Throughout 2020 and 2021, we introduced a range of new safety protocols in our facilities in an effort to protect our employees and support appropriate health and safety protocols in response to COVID-19 and the global pandemic. Through the use of education and awareness, provision of necessary personal protective equipment, and changes to our manufacturing sites and screening, we strive to make our workplaces a safe place for employees during the workday.

Creating a culture where all of our employees feel supported and valued is vital to Tenneco's values. We strive to ensure the health, safety and general well-being of our employees. We continue to evolve our programs to meet our employees' health and wellness needs, which we believe is critical to attract and retain employees, and we offer a competitive benefits package focused on fostering work/life integration.

Inclusion, Diversity and Equity
At Tenneco, we embrace the unique needs of each geographical market from customer requirements to team member cultures. We believe that a commitment to Inclusion, Diversity and Equity ("ID&E") is a business imperative, not just the right thing to do. When done well it allows us to become an employer of choice who can attract, develop and retain the best talent, drive innovation and meaningful results through high performing diverse teams who deliver an unmatched customer experience, develop leaders that champion a culture of inclusion and engagement, and help strengthen the communities where we live and work.

We have made progress in inclusion and diversity through a variety of diverse partnerships and organizations. Additionally, in 2021, to drive further changes in inclusion and diversity, we accelerated momentum of an IDEA (Inclusion, Diversity, Equity and Action) Board commissioned in 2020 which partners with management to deliver a robust inclusion and diversity strategy for the future, through a long-range roadmap of programs intrinsic to our people strategy. Tenneco's IDEA Board is sponsored by the Chief Executive Officer and the Executive Vice President and Chief Human Resources Officer and is made up of members from the Company representing locations, functions and business segments across the globe. In 2021, the IDEA Board extended its reach with the engagement of 5 regional action teams to ensure ID&E strategy is delivered regionally and in keeping with differing local needs and cultural nuances.

Competitive Pay
Our compensation programs are designed to align the compensation of our employees with the Company's performance and to provide proper incentives to attract, retain and motivate employees to achieve superior results. We believe the structure of our compensation programs balance incentive earnings for both short-term and long-term performance. Further, we are committed to fair pay and strive to be externally competitive while ensuring internal equity across the enterprise.

Talent Management
We have developed initiatives and opportunities to empower team members to progress their skill sets, focusing on tools and training to build technical, professional and leadership skills throughout our organization, as well as use a progressive learning approach of "learn-do-lead" to develop our future leaders. We provide development programs in a variety of areas which cover both interpersonal and technical skills. We also have management development resources to continue to build tools for leaders to develop their teams on the job and in roles to create new opportunities to learn and grow using a 70/20/10 approach. Core development programs are detailed in our most recent Sustainability Report.

Team member engagement is critical to our success. To assess and improve employee retention and engagement, Tenneco surveys employees with the assistance of a third-party system and governance, then takes actions to understand our current engagement levels and to develop actions to address areas for improvement, communicating transparently about findings and progress with the global team.

Tenneco is also focused on ensuring effective and regular talent and performance reviews to strengthen our talent pipeline. Our in-depth talent reviews serve to identify high potential talent to advance in roles with greater responsibility, assess learning and development needs, and establish and refresh succession plans for critical leadership roles across the enterprise. Our performance review process promotes transparent communication of team member performance; in both the "what" and the "how", which we believe is a key factor in our success. The performance and the talent reviews enable ongoing assessments, reviews, and mentoring to identify career development and training opportunities for our employees.

Raw Materials
We purchase various raw materials and component parts for use in our manufacturing processes, including ferrous and non-ferrous metals, non-metallic raw materials, stampings, castings, and forgings. We also purchase parts manufactured by other manufacturers for sale in the aftermarket. The principal raw material that we use is steel. We obtain steel from a number of sources pursuant to various contractual and other arrangements. We believe that an adequate supply of steel can presently be obtained from a number of different domestic and foreign suppliers. We address price increases by evaluating alternative materials and processes, reviewing material substitution opportunities, increasing component sourcing and parts assembly in best cost countries, strategically pursuing regional and global purchasing strategies for specific commodities, and aggressively negotiating with our customers to allow us to recover these higher costs from them.

Intellectual Property
We are the owner of a large number of U.S. and foreign country patents and trademarks relating to our products and businesses. We manufacture and distribute our aftermarket products and products sold directly to OE manufacturers under a number of trademarks that are well-recognized in the marketplace. The patents, trademarks and other intellectual property owned by or licensed to us are important in the manufacturing, marketing, and distribution of our products. The primary purpose in obtaining patents is to protect our designs, technologies, and products. However, we do not materially rely on any single patent, nor will the expiration of any single patent materially affect our business. While our current patents will expire in the normal course at various times between now and, as of year-end, 2041, we continually develop new technologies and products and apply for and obtain new U.S. and foreign patents.

ITEM 1A.RISK FACTORS.

Business, Operational and Financial Risks

Future deterioration or prolonged difficulty in economic or market conditions could have a material adverse impact on our business, financial position, and liquidity.

We are a global company and, as such, our businesses are affected by economic conditions in the various geographic regions in which we do business. Economic difficulties generally lead to tightening of credit and liquidity. These conditions often lead to low consumer confidence or changes in consumer spending, which in turn may result in delayed and reduced purchases of durable goods such as automobiles and other vehicles. As a result, during difficult economic times our OE customers can significantly reduce their production schedules. For example, light vehicle production declined significantly during the global pandemic in 2020. Also, persistent challenges in the Chinese economy beginning in 2018 and continuing into 2022 may result in declining light vehicle and commercial vehicle production. Additionally, production of off-highway equipment with our content on them have been weak in certain product applications, such as agricultural and construction equipment in North America and Europe. Any deterioration or prolonged difficulty in economic conditions in any region in which we do business could have a material adverse effect on our business, financial position and liquidity.

In addition, economic difficulties often lead to disruptions in the financial markets, which may adversely impact the availability and cost of credit which could materially and negatively affect our company. Future disruptions in the capital and credit markets, including inflation and fluctuations in interest rates, could adversely affect our customers' and our ability to access the liquidity that is necessary to fund operations on terms that are acceptable to us or at all.

Also, financial or other difficulties at any of our major customers could have a material adverse impact on us, including as a result of lost revenues, significant write downs of accounts receivable, significant impairment charges or additional restructuring beyond our current global plans. Severe financial or other difficulties at any of our major suppliers could have a material adverse effect on us if we are unable to obtain on a timely basis on similar economic terms the quantity and quality of components we require to produce our products.

Moreover, severe financial or operating difficulties at any light vehicle or commercial vehicle manufacturer or other supplier could have a significant disruptive effect on the entire industry, leading to supply chain disruptions and labor unrest, among other things. These disruptions could force original equipment manufacturers and, in turn, other suppliers, including us, to shut down production at plants. While the issues that our customers and suppliers face during economic difficulties may be primarily financial in nature, other difficulties, such as an inability to meet increased demand as conditions recover, could also result in supply chain and other disruptions.

The novel coronavirus (COVID-19) global pandemic has had and is expected to continue to have an adverse effect on our business and results of operations.

In late 2019, a novel strain of coronavirus, COVID-19, was first detected in Wuhan, China. In March 2020, the World Health Organization declared COVID-19 a global pandemic, and governmental authorities around the world have implemented measures to reduce the spread of COVID-19. These measures have adversely affected workforces, customers, consumer sentiment, economies, and financial markets, and, along with decreased consumer spending, reductions in revenue, and delays in payments from customers and partners, have led to an economic downturn in many of our markets. As a result of COVID-19, and in response to government mandates or recommendations, as well as decisions made to protect the health and safety of employees, consumers and communities, we and our customers have experienced significant closures and instances of reduced operations and limited access at corporate offices and other facilities which may negatively impact productivity and cause other disruptions to our business. Also, economic conditions in the wake of the pandemic have included inflationary pressure, which could result in higher operating expenses and project costs for us, as well as higher interest rates.

In mid-2020, there was some loosening of government-mandated COVID-19 restrictions in certain locales in response to improved COVID-19 infection levels. However, upon worsening COVID-19 infection levels in certain localities in late 2020 and in early 2021, local governmental authorities in these localities have re-imposed either some or all of earlier restrictions or imposed other restrictions, all in an effort to prevent the spread of COVID-19. Also, in early 2021, vaccines for combating COVID-19 were approved by health agencies in certain countries/regions in which we operate (including the U.S., U.K., European Union, Canada, and Mexico) and began to be administered. The availability of COVID-19 vaccines and their take-up by individuals is difficult to predict and vaccination levels are likely to vary across jurisdictions. The sustainability of certain economic recovery observed in 2021 remains unclear as inflationary pressures have increased in the U.S. and globally and efforts to combat the virus have been complicated by new variants. In general, the pace and shape of the COVID-19 recovery as well as the impact and extent of COVID-19 variants or potential resurgences is not presently known.

While certain measures to reduce the spread of COVID-19 continued to be scaled back or done away with throughout 2021, we may face new or longer-term requirements and other operational restrictions due to, among other factors, future variants of COVID-19, vaccination rates and effectiveness, and evolving governmental restrictions. Although vaccines have proven to be effective in mitigating the risks of continued spread of COVID-19, there is no guarantee that the vaccines will continue to be effective against future variants. In particular, given recent resurgences in the COVID-19 pandemic, the timing and effectiveness of global efforts to roll out vaccines and the impacts of COVID-19 variants around the world, we may have to re-institute earlier measures to reduce the spread of COVID-19.

The uncertainties created by the COVID-19 global pandemic, including the severity, duration and possible resurgence of the outbreak, vaccination rates and impacts, and additional actions, including vaccination mandates, that may be or are being taken by governmental authorities make it difficult to forecast the effects of the virus on the Company's future results, including our ability to execute our near-term and long-term business strategies and initiatives in the expected time frame. Additionally, it is possible that we may experience businesses being shut down, additional work restrictions and supply chain disruptions as well as labor shortages or increased labor costs as a result of COVID-19, further disrupting operations and impacting revenues negatively. We may also face unforeseen liabilities as a result of the COVID-19 pandemic, including as a result of claims alleging exposure to COVID-19 in connection with our facilities or operations or we may be subject to fines or penalties to the extent we fail to comply with applicable requirements. To the extent the COVID-19 global pandemic adversely affects our business and financial results, it may also have the effect of heightening many of the other risks described in our "Risk Factors" section, such as those relating to our level of indebtedness, our need to generate sufficient cash flows to service our indebtedness, our ability to comply with the covenants contained in the agreements that govern our indebtedness and to have access to sufficient liquidity through the COVID-19 pandemic, decreased revenue from loss of customer market share, and working capital requirements.

Increases in the costs and disruption in the availability of raw materials, energy, commodities and product components could adversely impact our financial condition and results of operations.
The principal raw material that we use is steel. We obtain steel from a number of sources pursuant to various contractual and other arrangements. Due to recent supply chain constraints within the automotive industry, we may encounter difficulty in obtaining steel and other commodities at current contractual prices and as a result may incur higher costs to procure these items. In addition, the automotive industry continues to face a shortage of semiconductors, which has led to production disruptions globally and created operating challenges for the automotive supplier base. In September 2021, IHS Markit lowered its 2022 global light vehicle production forecasts due to the ongoing semiconductor shortage. In addition, we are experiencing other supply chain challenges, and the effects of inflation on commodities and our other costs to manufacture and distribute our products. Increases in the costs and disruption in the availability of raw materials, energy, commodities and product components could adversely impact our financial condition and results of operations.

Factors that reduce demand for our products or reduce prices could materially and adversely impact our financial condition and results of operations.
Demand for and pricing of our products are subject to economic conditions and other factors present in the various domestic and international markets where our products are sold. Demand for our OE products is subject to the level of consumer demand for new vehicles that are equipped with our parts. The level of new light vehicle, commercial truck and off-highway vehicle purchases is cyclical, affected by such factors as general economic conditions, interest rates and availability of credit, consumer confidence, patterns of consumer spending, industrial construction levels, fuel costs, government incentives, and vehicle replacement cycles. Consumer preferences and government regulations also impact the demand for new light vehicle purchases equipped with our products. For example, if consumers increasingly prefer electric vehicles, demand for the vehicles equipped with our clean air and powertrain products could decrease.

Demand for our aftermarket, or replacement, products varies based upon such factors as general economic conditions; the level of new vehicle purchases, which initially displaces demand for aftermarket products; the severity of winter weather, which increases the demand for certain aftermarket products; the number of vehicles in operation; and other factors, including the average useful life of parts and number of miles driven.

The highly cyclical nature of the automotive and commercial vehicle industry presents a risk that is outside our control and that cannot be accurately predicted. Decreases in demand for automobiles and commercial vehicles and vehicle parts generally, or in the demand for our products in particular, could materially and adversely impact our financial condition and results of operations.

In addition, we believe that increasingly stringent environmental standards for emissions have presented and will continue to present an important opportunity for us to grow our clean air product line. We cannot assure you, however, that environmental standards for emissions will continue to become more stringent or that the adoption of any new standards will not be delayed beyond our expectations.

We may be unable to realize sales represented by our awarded business, which could materially and adversely impact our financial condition and results of operations.

The realization of future sales from awarded business is inherently subject to a number of important risks and uncertainties, including the number of vehicles that our OE customers will actually produce, the timing of that production and the mix of options that our OE customers and consumers may choose. For example, light vehicle production declined significantly during the global pandemic in 2020. Also, persistent challenges in the Chinese economy in 2018 and going into 2022 may result in declining light and commercial vehicle production in the region. Additionally, we have experienced significant volatility in customer demand throughout 2021 and into 2022, creating risk that the forecasted volumes of sales will not be realized and, in many cases, increasing the costs and challenges inherent in managing our supply chain. In addition to the risks inherent in the cyclicality of vehicle production, our customers generally have the right to replace us with another supplier at any time for a variety of reasons and have demanded price decreases over the life of awarded business. Accordingly, we cannot assure you that we will in fact realize any or all of the future sales represented by our awarded business. Any failure to realize these sales could have a material adverse effect on our financial condition, results of operations, and liquidity.

In many cases, we must commit substantial resources in preparation for production under awarded OE business well in advance of the customer's production start date. In certain instances, the terms of our OE customer arrangements permit us to recover these pre-production costs if the customer cancels the business through no fault of our company. Although we have been successful in recovering these costs under appropriate circumstances in the past, we can give no assurance that our results of operations will not be materially impacted in the future if we are unable to recover these types of pre-production costs in the event of an OE customer's cancellation of awarded business.

Our level of debt makes us more sensitive to the effects of economic downturns; and provisions in our debt agreements could constrain our ability to react to changes in the economy or our industry.

Our level of debt makes us more vulnerable to changes in our results of operations because a significant portion of our cash flow from operations is dedicated to servicing our debt and is not available for other purposes and our level of debt could impair our ability to raise additional capital if necessary. Further increases in interest rates will increase the amount of cash required for debt service. Under the terms of our senior secured credit facility, the indentures governing our notes and the agreements governing our other indebtedness, we are limited in the amount of and type of additional indebtedness we can incur in the future. The more we become leveraged, the more we, and in turn our security holders, become exposed to many of the risks described herein.

Our ability to make payments on our indebtedness depends on our ability to generate cash in the future. If we do not generate sufficient cash flow to meet our debt service, capital investment and working capital requirements, we may need to seek additional financing or sell assets. If we require such financing and are unable to obtain it, we could be forced to sell assets under unfavorable circumstances and we may not be able to sell assets quickly enough or for sufficient amounts to enable us to meet our obligations.

In addition, our senior credit facility and our other debt agreements contain covenants that limit our flexibility in planning for or reacting to changes in our business and our industry, including limitations on our ability to:

- declare dividends or redeem or repurchase capital stock;
- prepay, redeem or purchase other debt;
- incur liens;
- make loans, guarantees, acquisitions and investments;
- incur additional indebtedness;
- amend or otherwise alter debt and other material agreements;
- engage in mergers, acquisitions or asset sales; and
- engage in transactions with affiliates.

Our failure to comply with the covenants contained in our debt instruments, including as a result of events beyond our control, could result in an event of default, which could materially and adversely affect our operating results and our financial condition.
Our senior credit facility and other agreements governing financings we enter into from time to time require us to maintain certain financial ratios. Our senior credit facility and our other financing instruments require us to comply with various operational and other covenants. If there were an event of default under any of our financing instruments that was not cured or waived, the holders of the defaulted financing could cause all amounts outstanding with respect to that financing to be due and payable immediately (which, in turn, could also result in an event of default under one or more of our other financing arrangements). If such event occurs, the lenders under our senior credit facility could elect to terminate their commitments, cease making further loans and institute foreclosure proceedings against our assets, and we could lose access to our factoring and supply chain financing programs. We cannot assure you that our assets or cash flow would be sufficient to fully repay borrowings under our outstanding financing instruments, either upon maturity or if accelerated, upon an event of default, or that we would be able to refinance or restructure the payments on those financing instruments. This would have a material adverse impact on our liquidity, financial position and results of operations, and on our ability to affect our share repurchase and dividend programs. For example, in 2020 we amended our senior credit agreement to relax the financial ratios we are required to maintain to facilitate operational flexibility in light of our outlook for the second half of 2020. Even though we were able to obtain amendments in 2020, we cannot assure you that we would be able to obtain amendments on commercially reasonable terms, or at all, if required in the future.

Our working capital requirements may negatively affect our liquidity and capital resources.
Our working capital requirements can vary significantly, depending in part on the level, variability and timing of our customers' worldwide vehicle production and the payment terms with our customers and suppliers. If our working capital needs exceed our cash flows from operations, we would look to our cash balances and availability for borrowings under our borrowing arrangements to satisfy those needs, as well as potential sources of additional capital, which may not be available on satisfactory terms and in adequate amounts, if at all.

We may be unable to realize the expected benefits of our initiatives to improve operating performance and generate cost savings and improvements.
We regularly implement strategic and other initiatives designed to improve our operating performance. Our inability to implement these initiatives in accordance with our plans or our failure to achieve the goals of these initiatives could have a material adverse effect on our business. We rely on these initiatives to offset pricing pressures from our suppliers and our customers, as described above, as well as to manage the impacts of production cuts. Our implementation of announced initiatives is from time to time subject to legal challenge in certain non-U.S. jurisdictions (where applicable employment laws differ from those in the U.S.). Furthermore, the terms of our senior credit facility and the indentures governing our notes may restrict the types of initiatives we undertake. In the past we have been successful in obtaining the consent of our senior lenders where appropriate in connection with our initiatives. We cannot assure you, however, that we will be able to pursue, successfully implement or realize the expected benefits of any initiative or that we will be able to sustain improvements made to date.

Exchange rate fluctuations could cause a decline in our financial condition and results of operations.
As a result of our international operations, we are subject to increased risk because we generate a significant portion of our net sales and incur a significant portion of our expenses in currencies other than the U.S. dollar. For example, where we have a greater portion of costs than revenues generated in a foreign currency, we are subject to risk if the foreign currency in which our costs are paid appreciates against the currency in which we generate revenue because the appreciation effectively increases our cost in that country.

The financial condition and results of operations of some of our operating entities are reported in foreign currencies and then translated into U.S. dollars at the applicable exchange rate for inclusion in our consolidated financial statements. As a result, appreciation of the U.S. dollar against these foreign currencies generally will have a negative impact on our reported revenues and operating profit while depreciation of the U.S. dollar against these foreign currencies will generally have a positive effect on reported revenues and operating profit.

We do not generally seek to mitigate the impacts of currency through the use of derivative financial instruments. To the extent we are unable to match revenues received in foreign currencies with costs paid in the same currency, exchange rate fluctuations in that currency could have a material adverse effect on our business.

From time to time we experience significant increases and fluctuations in the pricing of raw materials and the cost of logistics connected to producing and receiving such materials, the cost of utilities required to produce our products and increases in certain lead times; and future changes in the prices of raw materials, logistics, or utility services, or future increases in lead times, could have a material adverse impact on us. Significant increases in the cost of certain raw materials used in our products, including, among other materials, steel, oil and rubber, or the cost of utility services required to produce these products to the extent they are not timely reflected in the price we charge our customers or are otherwise mitigated could materially and adversely impact our results. During 2021, compared to 2020, market prices increased for key inputs such as carbon steel in North America, copper and aluminum, along with increases in logistics costs connected to producing and receiving such materials.

We attempt to mitigate these increases by evaluating alternative materials and processes, reviewing material substitution opportunities, increasing component sourcing and parts assembly in best cost countries, and strategically pursuing regional and global purchasing strategies for specific commodities. We also negotiate to recover these higher costs from our customers, and in some cases, such as with respect to steel surcharges, we have the contractual right to recover some or all of these higher costs from certain of our customers. However, if we are successful in recovering these higher costs, we may not receive that recovery in the same period that the costs were incurred and the benefit of the recovery may not be evenly distributed throughout the year.

We also continue to pursue productivity initiatives and other opportunities to reduce costs through restructuring activities. During periods of economic recovery, the cost of raw materials, logistics and utility services generally rise. Accordingly, we cannot ensure that we will not face further increased prices in the future or, if we do, whether our actions will be effective in containing them.

By entering into new product lines and employing new technologies, our ability to produce certain of these products may be constrained due to longer lead times for our facilities, as well as those of our suppliers. We attempt to mitigate the negative effects of these longer lead times by improving the accuracy of our long-term planning; however, we cannot provide any certainty that we will be successful in avoiding disruptions to our delivery schedules.

Our aftermarket sales may be negatively impacted by increasing competition from lower cost, private-label products.
Distribution channels in the aftermarket have continued to consolidate and, as a result, our sales to large retail customers represent a significant portion of our aftermarket business. Private-label aftermarket products, which are typically manufactured at a lower cost, often containing little or no premium technology, and are branded with a store or other private-label brand, are increasingly available to these large retail customers. Our aftermarket business is facing increasing competition from these lower cost, private-label products and there is growing pressure to expand our entry-level product lines so that retailers may offer a greater range of price points to their consumer customers. We cannot assure you that we will be able to maintain or increase our aftermarket sales to these large retail customers or that increased competition from these lower cost, private-label aftermarket products will not have an adverse impact on our aftermarket business.

If the reputation of one or more of our leading brands is harmed, aftermarket sales may be negatively impacted.
Our aftermarket sales are dependent on the reputation and success of our brands, including Monroe®, Champion®, Öhlins®, MOOG®, Walker®, Fel-Pro®, Wagner®, Ferodo®, Rancho®, Thrush®, National®, Sealed Power® and others. Product liability claims or recalls could result in negative publicity that could harm the reputation of our brands. If one or more of our leading brands suffers damage to its reputation due to real or perceived quality or safety issues, our financial results could be adversely affected.

Improvements in automotive parts are adversely affecting aftermarket demand for some of our products.
The average useful life of automotive parts has steadily increased in recent years due to innovations in products and technologies. The longer product lives allow vehicle owners to replace parts of their vehicles less often. As a result, a portion of sales in the aftermarket has been displaced. In addition, advancements in technology may lead to enhancements in aftermarket product performance that render our product obsolete. This has adversely impacted, and could continue to adversely impact, our aftermarket sales. Also, any additional increases in the average useful lives of automotive parts or other enhancements in aftermarket performance would further adversely affect the demand for our aftermarket products.

Natural disasters, local and global public health emergencies, political crises, and other catastrophic events or other events outside of our control may affect our facilities or the facilities of third parties on which we depend and could impact our business and our results of operations and financial condition.

If any of our facilities or the facilities of our suppliers, third-party service providers, or customers, is affected by natural disasters (such as earthquakes, tornados, tsunamis, power shortages or outages, floods or monsoons), public health crises (such as pandemics and epidemics), political crises (such as terrorism, war, political instability or other conflict), or other events outside of our control, our business and our results of operations and financial condition could suffer. Any such disruption could cause delays in the production and distribution of our products and the loss of sales and customers. Moreover, these types of events could negatively impact consumer spending or the economy in the impacted regions or depending upon the severity, globally, which could adversely impact our business and our results of operations and financial condition.

Certain of our operations are conducted through joint ventures, which have unique risks.

Certain of our operations are conducted through joint ventures. Our joint ventures are governed by mutually established agreements that we entered into with our partners, and, as such, we do not unilaterally control the joint ventures. There is a risk that our partners' objectives for the joint ventures may not be aligned with ours, leading to potential disagreements over management of the joint ventures. At some of our joint ventures, our joint venture partner is also affiliated with the largest customer of the joint venture, which may create a conflict between the interests of our partner and the joint venture. Also, our ability to sell our interest in a joint venture may be subject to contractual and other limitations.

Additional risks associated with joint ventures include our partners failing to satisfy contractual obligations, conflicts arising between us and any of our partners, a change in the ownership of any of our partners and our limited ability to control compliance with applicable rules and regulations. Accordingly, any such occurrences could adversely affect our financial condition, operating results and cash flows.

We are subject to risks related to operating a multi-national company.

We have manufacturing and distribution facilities in many regions across six continents. For the fiscal year ended December 31, 2021, a significant portion of our net sales were derived from operations outside North America. Current events including the possibility of renegotiated trade deals and international tax law treaties, create a level of uncertainty, and potentially increased complexity, for multi-national companies. These uncertainties could have a material adverse effect on our business and our results of operations and financial condition. In addition, international operations are subject to various risks which could have a material adverse effect on those operations or our business as a whole, including:

- currency exchange rate fluctuations, including those in countries with hyperinflationary economies;
- exposure to local economic conditions and labor issues;
- exposure to local political conditions, including the risk of seizure of assets by a foreign government;
- exposure to local social conditions, including corruption and any acts of war, terrorism or similar events;
- exposure to local public health issues and the resultant impact on economic and political conditions;
- inflation in certain countries;
- limitations on the repatriation of cash, including imposition or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries;
- retaliatory tariffs and restrictions limiting free movement of goods and an unfavorable trade environment, including as a result of political conditions and changes in the laws in the U.S. and elsewhere and as described in more details below; and
- requirements for manufacturers to use locally produced goods.

Entering new markets poses new competitive threats and commercial risks.

As we have expanded into markets beyond light vehicles, we expect to diversify our product sales by leveraging technologies being developed for the light vehicle segment. Such diversification requires investments and resources which may not be available as needed. We cannot guarantee that we will be successful in leveraging our capabilities into new markets and thus, in meeting the needs of these new customers and competing favorably in these new markets. Further, a significant portion of our growth potential is dependent on our ability to increase sales to commercial truck and off-highway vehicle customers. While we believe that we can achieve our growth targets with the production contracts that have been or will be awarded to us, our future prospects will be negatively affected if those customers underlying these contracts experience reduced demand for their products, or financial difficulties.

We have recorded a significant amount of long-lived assets, goodwill, and other intangible assets, which may become impaired in the future and negatively affect our operating results.
We have recorded a significant amount of long-lived assets, goodwill, and other identifiable intangibles assets, including customer relationships, trademarks and brand names, and developed technologies due to the Federal-Mogul LLC acquisition. Under generally accepted accounting principles in the U.S., long-lived assets, excluding goodwill and indefinite lived intangible assets, are required to be evaluated for impairment whenever adverse events or changes in circumstances indicate a possible impairment. If business conditions or other factors cause profitability and cash flows to decline, we may be required to record non-cash impairment charges. Goodwill and indefinite-lived intangible assets must be evaluated for impairment annually or more frequently if events indicate it is warranted. Impairment of goodwill and other identifiable intangible assets may result from, among other things, deterioration in our performance, adverse market conditions, adverse changes in applicable laws or regulations, including changes that restrict the activities of or affect the products sold by our business, and a variety of other factors. The amount of any quantified impairment must be expensed immediately and could have a material adverse effect on our financial statements in the event that long lived assets, goodwill or other identifiable intangible assets become impaired.

The value of our deferred tax assets may not be realized, which could materially and adversely affect our operating results.
Our deferred tax assets include net operating loss carryovers and tax credits that can be used to offset taxable income in future periods and reduce income taxes payable in those future periods. Each quarter, we determine the probability of the realization of deferred tax assets, using significant judgments and estimates with respect to, among other things, historical operating results and expectations of future earnings and tax planning strategies. If we determine in the future that there is not sufficient positive evidence to support the valuation of these assets, due to the risk factors described herein or other factors, we may be required to further adjust the valuation allowance to reduce our deferred tax assets. Such a reduction could result in material non-cash expenses in the period in which the valuation allowance is adjusted and could have a material adverse effect on our financial statements.

We may not be able to fully utilize our net operating loss and other tax carryforwards.
Under Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"), and corresponding provisions of state law, if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes to offset its post-change income or taxes may be limited. A corporation generally experiences an "ownership change" if the percentage of its shares of stock owned by its "5-percent shareholders," as such term is defined in Section 382 of the Code, increases by more than 50 percentage points over a rolling three-year period. We may experience ownership changes in the future as a result of subsequent shifts in our stock ownership, some of which may be outside of our control. If an ownership change occurs and our ability to use our tax attributes is materially limited, it would harm our future operating results by effectively increasing our future tax obligations.

Our expected annual effective tax rate could be volatile and materially change as a result of changes in mix of earnings and other factors.
Our overall effective tax rate is equal to our total tax expense as a percentage of our total profit or loss before tax. However, tax expenses and benefits are determined separately for each tax paying entity or group of entities that is consolidated for tax purposes in each jurisdiction. Losses in certain jurisdictions may provide no current financial statement tax benefit. As a result, changes in the mix of profits and losses between jurisdictions, among other factors, could have a significant impact on our overall effective tax rate.

The Company's hedging activities to address commodity price fluctuations may not be successful in offsetting future increases in those costs or may reduce or eliminate the benefits of any decreases in those costs.
In order to mitigate short-term variation in operating results due to the aforementioned commodity price fluctuations, the Company hedged a portion of near-term exposure to certain raw materials used in production processes, primarily copper, nickel, tin, zinc, high-grade aluminum and aluminum alloy. The results of this hedging practice could be positive, neutral or negative in any period depending on price changes in the hedged exposures.

Our hedging activities are not designed to mitigate long-term commodity price fluctuations and, therefore, will not protect from long-term commodity price increases. Our future hedging positions may not correlate to actual raw materials costs, which would accelerate the recognition in our operating results of unrealized gains and losses on hedging positions.

If we cannot attract, retain, and motivate employees, we may be unable to compete effectively, and lose the ability to improve and expand our businesses, and increasing competition for highly skilled and talented workers, as well as labor shortages, could adversely affect our business.
Our success and ability to grow depends, in part, on our ability to hire, retain, and motivate sufficient numbers of talented people with the increasingly diverse skills needed to serve clients and expand our business in many locations around the world. We face intense competition for highly qualified, specialized technical, managerial and other personnel. Recruiting, training, retention, and benefit costs place significant demands on our resources. The inability to attract qualified employees in sufficient numbers to meet particular demands or the loss of key management employees or a significant number of our employees could have an adverse effect on us.

A number of factors may adversely affect the labor force available to us or increase labor costs, including high employment levels, federal unemployment subsidies, including unemployment benefits offered in response to the ongoing COVID-19 pandemic, and other government regulations. Although we have not experienced any material labor shortages to date, we have observed an increasingly competitive labor market. The increasing competition for highly skilled and talented employees could result in higher compensation costs and difficulties in maintaining a capable workforce. If we are unable to hire and retain employees capable of performing at a high-level, or if mitigation measures we may take to respond to a decrease in labor availability, such as overtime and third-party outsourcing, have unintended negative effects, our business could be adversely affected. A sustained labor shortage, lack of skilled labor, increased turnover or labor cost inflation, caused by the ongoing COVID-19 pandemic or as a result of general macroeconomic factors, could lead to increased costs, such as increased overtime to meet demand and increased wage rates to attract and retain employees, which could negatively affect our ability to efficiently operate our manufacturing and distribution facilities and overall business and have other adverse effects on our results of operations and financial condition.

Our business could be adversely impacted as a result of actions by activist stockholders, including potential proxy contests.
We value constructive input from investors and regularly engage in dialogue with our stockholders regarding strategy and performance. The Board of Directors and management team are committed to acting in the best interests of all of our stockholders. There can be no assurance, however, that the actions taken by the Board of Directors and management in seeking to maintain constructive engagement with our stockholders will be successful, and we may be subject to formal or informal actions or requests from stockholders or others. Responding to such actions could be costly and time-consuming, divert the attention and resources of management and employees, and may have an adverse effect on our business, results of operations and cash flow and the market price of our common stock.

Uncertainties related to, or the results of, any actions by activist stockholders could cause our stock price to experience periods of volatility. We cannot predict, and no assurances can be given as to the outcome or timing of any matters relating to actions by activist stockholders or the ultimate impact on our business, liquidity, financial condition or results of operations.

The Company's pension obligations and other postretirement benefits could adversely affect the Company's operating margins and cash flows.
The automotive industry, like other industries, continues to be affected by the rising cost of providing pension and other postretirement benefits. In addition, the Company sponsors certain defined benefit plans worldwide that are underfunded and will require cash payments. If the performance of the assets in the pension plans does not meet the Company's expectations, or other actuarial assumptions are updated, the Company's required contributions may be higher than it expects.

Industry Risks

We are dependent on certain large customers for future revenue. The loss of all or a substantial portion of our revenues from any of these customers or the loss of market share by these customers could have a material adverse impact on us.
We depend on major vehicle manufacturers for a substantial portion of our revenues. For example, during the fiscal year ended December 31, 2021, General Motors and Ford accounted for 11% and 10% of our net sales. Following the Federal-Mogul LLC acquisition, we are increasingly dependent on certain major aftermarket customers for our revenues. The loss of all or a substantial portion of our revenues from any of our large-volume customers could have a material adverse effect on our financial condition and results of operations by reducing cash flows and our ability to spread costs over a larger revenue base. Circumstances that could result in a loss of revenues from our large-volume customers include, without limitation, the transition away from the production of gasoline powered vehicles (such as the announcements made by General Motors and Ford in 2021) and the transition to electrified powertrains, whether voluntary or mandated. We may experience decreased revenues from these customers for a variety of reasons, including but not limited to: (i) in the case of our OE customers, loss of awarded platforms, reduced demand for our customers' products, and work stoppages or other disruptions impacting OE production, and (ii) in the case of our aftermarket customers, reduced or delayed consumer requirements and competition from other brands or lower-cost alternatives. Further, our aftermarket customers are generally able to change suppliers more quickly than OE customers, which heightens these risks with respect to our aftermarket business.

For all of our customers, we face additional risks including (i) national and local mandates to phase-out or limit the use or sale of gasoline or diesel powered vehicles; and (ii) our customers failure to pay us for a variety of other reasons, including their respective financial conditions.

In addition, our customers compete intensively against each other. The loss of market share by any of our major customers could have a material adverse effect on our business unless we are able to achieve increased sales to other major customers.

The hourly workforce in the industry in which we participate is highly unionized and our business could be adversely affected by labor disruptions in the U.S. or internationally.
A portion of our hourly workforce in North America and the majority of our hourly workforce in other regions are unionized. Although we consider our current relations with our employees to be satisfactory, if major work disruptions were to occur, our business could be adversely affected by, for instance, a loss of revenues, increased costs or reduced profitability. We have not experienced a material labor disruption in our recent history, but there can be no assurance that we will not experience a material labor disruption at one of our facilities in the future in the course of renegotiation of our labor arrangements or otherwise.

In addition to the risk of a work stoppage at one of our facilities, labor disruptions at other domestic or international companies may have an adverse effect on us. In the U.S., substantially all of the hourly employees of General Motors, Ford, and Stellantis in North America and many of their other suppliers are represented by The International Union, United Automobile, Aerospace and Agricultural Implement Workers of America ("UAW") under collective bargaining agreements. Internationally, certain vehicle manufacturers, their suppliers and their respective employees are also subject to labor agreements. In September 2019, General Motors hourly workers represented by the UAW went on strike, which affected the volumes at certain of our North American plants in the third quarter of 2019. Although the strike was resolved on October 25, 2019, the strike affected volumes in the fourth quarter of 2019 as well. A work stoppage or strike at one of our production facilities, at those of a customer, or impacting a supplier of ours or any of our customers, either domestically or internationally, could have an adverse impact on us by disrupting demand for our products or our ability to manufacture our products.

We may have difficulty competing favorably in the highly competitive light vehicle and commercial vehicle supplier industry.
The light vehicle and commercial vehicle supplier automotive parts industry is highly competitive. Although the overall number of competitors has decreased due to ongoing industry consolidation, we face significant competition within each of our major product areas, including from new competitors entering the markets which we serve. The principal competitive factors include price, quality, service, product performance, design and engineering capabilities, new product innovation, global presence and timely delivery. As a result, many suppliers have established or are establishing themselves in emerging, low-cost markets to reduce their costs of production and be more conveniently located for customers. We cannot assure you that we will be able to continue to compete favorably in this competitive market or that increased competition will not have a material adverse impact on our business by reducing our ability to increase or maintain sales or profit margins.

In addition, our competitors may foresee the course of market development more accurately than we do, develop products that are superior to ours, adapt more quickly than we do to new technologies or evolving customer requirements or develop or introduce new products or solutions before we do, particularly in respect of potential transformative technologies such as autonomous driving solutions. As a result, our products may not be able to compete successfully with their products. These trends may adversely affect our sales as well as the profit margins on our products. Failure to innovate and to develop or acquire products that capitalize on new technologies could have a material adverse impact on our results of operations.

Furthermore, due to the cost focus of our major OE customers, we have been, and expect to continue to be, requested to reduce prices as part of our initial business quotations and over the life of OE vehicle platforms we have been awarded. We cannot be certain that we will be able to generate cost savings and operational improvements in the future that are sufficient to offset price reductions requested by existing OE customers and necessary to win additional business. OE customers also direct us to engage specific suppliers for component purchases not allowing us to leverage our own supply base and realize cost reductions on this directed spend.

The decreasing number of customers and suppliers in our industry could make it more difficult for us to compete favorably.
Our financial condition and results of operations could be adversely affected because the customer base for our parts and services is decreasing in both the OE market and aftermarket. As a result, we are competing for business from fewer customers. Furthermore, consolidation among suppliers have resulted in fewer, larger suppliers who benefit from purchasing and distribution economies of scale. If we cannot achieve cost savings and operational improvements sufficient to allow us to compete favorably in the future with these larger companies, our financial condition and results of operations could be adversely affected.

If we do not respond appropriately, the evolution towards connectivity, autonomy, shared mobility and electrification could adversely affect our business.

The light vehicle industry is increasingly focused on the development of advanced driver assistance technologies, with the goal of developing and introducing a commercially viable, fully autonomous vehicle. Continued focus on climate change and environmental sustainability is increasing the expectations for the auto industry to develop more fuel-efficient solutions from consumers and governments worldwide. For example, General Motors joined other vehicle manufacturers in 2021, including Ford, Nissan and Volvo, in committing to becoming carbon neutral after announcing its plans to reach carbon neutrality by 2040 and to stop selling gasoline powered light vehicles by 2035. To achieve these goals, General Motors is investing substantially in electrification. The increased adoption of electrified powertrains could result in lower demand for some of our products. There has also been an increase in consumer preferences for car and ride sharing, as opposed to automobile ownership, which may result in a long-term reduction in the number of vehicles per capita. The evolution of the industry towards connectivity, autonomy, shared mobility and electrification has also attracted increased competition from entrants outside the traditional light vehicle industry. Failure to innovate and to develop or acquire new and compelling products that capitalize upon new technologies in response to OE and consumer preferences could have a material adverse impact on our results of operations.

Legal, Regulatory and Policy Risks

We are subject to, and could be further subject to, government investigations or actions by other third parties.

We are subject to a variety of laws and regulations that govern our business both in the U.S. and internationally, including antitrust laws, violations of which can involve civil or criminal sanctions. Responding to governmental investigations or other actions may be both time-consuming and disruptive to our operations and could divert the attention of our management and key personnel from our business operations.

We cannot assure you that the reserve we have established to resolve these matters will not change materially from time to time or that the costs, charges and liabilities associated with these matters will not exceed any amounts reserved for them in our consolidated financial statements.

We may incur costs related to product warranties, environmental and regulatory matters, legal proceedings and other claims, which could have a material adverse impact on our financial condition and results of operations.

From time to time, we receive product warranty claims from our customers, pursuant to which we may be required to bear costs of repair or replacement of certain of our products. Vehicle manufacturers require their outside suppliers to guarantee or warrant their products and to be responsible for the operation of these component products in new vehicles sold to consumers. Warranty claims may range from individual customer claims to full recalls of all products in the field. We cannot assure you that costs associated with providing product warranties will not be material, or that those costs will not exceed any amounts reserved in our consolidated financial statements. For a description of our accounting policies regarding warranty reserves, see Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Policies".

Our global operations subject us to extensive governmental regulations worldwide. Foreign, federal, state and local laws and regulations may change from time to time and our compliance with new or amended laws and regulations in the future may materially increase our costs and could adversely affect our results of operations and competitive position. For example, we are subject to a variety of environmental and pollution control laws and regulations in all jurisdictions in which we operate. Soil and groundwater remediation activities are being conducted at certain of our current and former real properties. We record liabilities for these activities when environmental assessments indicate that the remedial efforts are probable and the costs can be reasonably estimated. On this basis, we have established reserves that we believe are adequate for the remediation activities at our current and former real properties for which we could be held responsible. Although we believe our estimates of remediation costs are reasonable and are based on the latest available information, the cleanup costs are estimates and are subject to change as more information becomes available about the extent of remediation required. In future periods, we could incur cash costs or charges to earnings if we are required to undertake remediation efforts as the result of ongoing analysis of the environmental status of our properties. In addition, violations of the laws and regulations we are subject to could result in civil and criminal fines, penalties and sanctions against us, our officers or our employees, as well as prohibitions on the conduct of our business, and could also materially affect our reputation, business and results of operations.

We also from time to time are involved in a variety of legal proceedings, claims or investigations. These matters typically are incidental to the conduct of our business. Some of these matters involve allegations of damages against us relating to environmental liabilities, intellectual property matters, personal injury claims, taxes, employment matters or commercial or contractual disputes or allegations relating to legal compliance by us or our employees. For example, we are subject to a number of lawsuits initiated by a significant number of claimants alleging health problems as a result of exposure to asbestos. Many of these cases involve significant numbers of individual claimants. Many of these cases also involve numerous

defendants. As major asbestos manufacturers or other companies that used asbestos in their manufacturing processes continue to go out of business, we may experience an increased number of these claims.

We cannot assure you that the costs, charges and liabilities associated with these matters will not be material, or that those costs, charges and liabilities will not exceed any amounts reserved for them in our consolidated financial statements. In future periods, we could be subject to cash costs or charges to earnings if any of these matters are resolved unfavorably to us. See Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations — Environmental and Legal Contingencies".

Changes in tax law or trade agreements and new or changed tariffs could have a material adverse effect on us.
Changes in political, regulatory and economic conditions and/or changes in laws and policies governing tax laws, foreign trade (including trade agreements and tariffs), manufacturing, and development and investment in the territories and countries where we and/or our customers operate could adversely affect our operating results and business.

For example, on December 22, 2017, the U.S. President signed into law new legislation that significantly revised the U.S. Internal Revenue Code. The newly enacted federal income tax law, among other things, contains significant changes to corporate taxation, including the reduction of the corporate income tax rate from a top marginal rate of 35% to a flat rate of 21%, a one-time transition tax on offshore earnings at reduced tax rates regardless of whether the earnings are repatriated, elimination of U.S. tax on foreign dividends (subject to certain important exceptions), new taxes on certain foreign earnings, a new minimum tax related to payments to foreign subsidiaries and affiliates, immediate deductions for certain new investments as opposed to deductions for depreciation expense over time, and the modification or repeal of many business deductions and credits.

In addition, the U.S., Mexico and Canada have renegotiated the North American Free Trade Agreement ("NAFTA"). The revised agreement, the US-Mexico-Canada Agreement ("USMCA"), contains new and revised provisions that alter the prior rules governing when imports and exports of autos and auto parts are eligible for duty-free treatment. Generally, these new rules require a higher percentage of the overall content of the auto or autopart to originate in one of the USMCA's countries (the U.S., Mexico or Canada). The USMCA was effective July 1, 2020. Our manufacturing facilities in the U.S., Mexico and Canada are dependent on duty-free trade within the USMCA region. We have significant movement of goods within NAFTA region, and the imposition of customs duties on imports could negatively impact our financial performance.

Moreover, in March 2018, the U.S. government imposed a 25% ad valorem tariff on certain steel imports and a 10% ad valorem tariff on certain aluminum imports. These tariffs (known as "Section 232 tariffs") apply to certain steel and aluminum imports from almost all countries. In addition, over the course of 2018 and 2019, the U.S. government imposed additional tariffs on products from China valued at $550 billion, with some limited exceptions (known as "Section 301 tariffs"). As a result of the tariffs, China and other countries have implemented retaliatory actions with respect to U.S. imports into their countries, which could adversely affect our business, financial condition or results of operations.

Our By-laws designate the Court of Chancery of the State of Delaware, subject to certain exceptions, as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders and designate the federal district courts of the United States as the exclusive forum for actions arising under the Securities Act of 1933, as amended, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.
The By-laws designate the Court of Chancery of the State of Delaware (or, in the event that the Chancery Court does not have jurisdiction, the federal district court for the District of Delaware or other state courts of the State of Delaware) as the exclusive jurisdiction for (a) any derivative proceeding brought on behalf of the Company, (b) any proceeding asserting a breach of a fiduciary duty owed by any director, officer or stockholder of the Company to the Company or its stockholders, (c) any proceeding pursuant to the Delaware General Corporation Law or the Company's Amended and Restated Certificate of Incorporation or By-laws or (d) any proceeding asserting a claim against the Company governed by the internal affairs doctrine. In addition, the By-laws provide that the federal district courts of the United States are the exclusive forum for any complaint raising a cause of action arising under the Securities Act of 1933, as amended.

Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our By-laws described above. These choice of forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or employees, which may discourage such lawsuits against us and our directors, officers and employees. Alternatively, if a court were to find these provisions of our By-laws inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business and financial condition.

Intellectual Property Risks

Developments relating to our intellectual property could materially impact our business.

We and others in our industry hold a number of patents and other intellectual property rights, including licenses, which are critical to our respective businesses and competitive positions. Notwithstanding our intellectual property portfolio, our competitors may develop similar or superior proprietary technologies. Further, as we expand into regions where the protection of intellectual property rights is less robust, the risk of others replicating our proprietary technologies increases, which could result in a deterioration of our competitive position. On occasion, we may assert claims against third parties who are taking actions that we believe are infringing on our intellectual property rights. Similarly, third parties may assert claims against us and our customers and distributors alleging our products infringe upon third party intellectual property rights. These claims, regardless of their merit or resolution, are frequently costly to prosecute, defend or settle and divert the efforts and attention of our management and employees. Claims of this sort also could harm our relationships with our customers and might deter future customers from doing business with us. If any such claim were to result in an adverse outcome, we could be required to take actions which may include: expending significant resources to develop or license non-infringing products; paying substantial damages to third parties, including to customers to compensate them for their discontinued use or replacing infringing technology with non-infringing technology; or cessation of the manufacture, use or sale of the infringing products. Any of the foregoing results could have a material adverse effect on our business, financial condition, results of operations or our competitive position.

We may not be able to respond quickly enough to changes in technology and to develop our intellectual property into commercially viable products.

Changes in competitive technologies may render certain of our products obsolete or less attractive. Our ability to anticipate changes in technology and to successfully develop and introduce new and enhanced products on a timely basis are significant factors in our ability to remain competitive and to maintain or increase our revenues.

We cannot provide assurance that certain of our products will not become obsolete or that we will be able to achieve the technological advances that may be necessary for us to remain competitive and maintain or increase our revenues in the future. We are also subject to the risks generally associated with new product introductions and applications, including lack of market acceptance, delays in product development or production, and failure of products to operate properly. If we are unable to react to changes in the marketplace, including the potential introduction of technologies such as autonomous vehicles, our financial performance could be adversely affected.

Information Technology Risks

We are increasingly dependent on information technology, and if we are unable to protect against service interruptions or security breaches, our business could be adversely affected.

Our operations rely on a number of information technologies to manage, store, and support business activities. Some of these technologies are managed by third-party service providers and are not under our direct control. We have put in place a number of systems, processes, and practices designed to protect against the failure of our systems, as well as the misappropriation, exposure or corruption of the information stored thereon. Unintentional service disruptions or intentional actions such as intellectual property theft, cyber-attacks, ransomware attacks, unauthorized access or malicious software, may lead to such misappropriation, exposure or corruption if our, or our service providers', protective measures prove to be inadequate. In addition, the costs to eliminate or alleviate network security problems, bugs, viruses, ransomware, worms, malicious software programs and security vulnerabilities could be significant, and our efforts to address these problems may not be successful, resulting potentially in the theft, loss, destruction or corruption of information that we store electronically. Further, these events may cause operational impediments or otherwise adversely affect our product sales, financial condition and/or results of operations. We could also encounter violations of applicable law, contracts or reputational damage from the disclosure of confidential information belonging to us or our employees, customers or suppliers. In addition, the disclosure of non-public information could lead to the loss of our intellectual property and/or diminished competitive advantages. Should any of the foregoing events occur, we may be required to incur significant costs to protect against damage caused by these disruptions or security breaches in the future. In addition, evolving and expanding compliance and operational requirements under the privacy laws of the jurisdictions in which we operate, such as the EU General Data Protection Regulation, or GDPR, which took effect in May 2018, impose significant costs that are likely to increase over time or potential fines for non-compliance.

Risk Factors related to the Proposed Merger

The proposed Merger is subject to approval of our stockholders as well as the satisfaction of other closing conditions, including government consents and approvals, some or all of which may not be satisfied or completed within the expected timeframe, if at all.

Completion of the Merger is subject to a number of closing conditions, including obtaining the approval of our stockholders, the expiration or termination of any waiting period (and any extension thereof) applicable to the consummation of the Merger under the HSR Act, and the receipt of other required regulatory approvals, consents or clearances with respect to the Merger under applicable competition and/or foreign direct investment laws. We can provide no assurance that all required consents and approvals will be obtained or that all closing conditions will otherwise be satisfied (or waived, if applicable), and, even if all required consents and approvals can be obtained and all closing conditions are satisfied (or waived, if applicable), we can provide no assurance as to the terms, conditions and timing of such consents and approvals or the timing of the completion of the Merger. Many of the conditions to completion of the Merger are not within our control, and we cannot predict when or if these conditions will be satisfied (or waived, if applicable). Any adverse consequence of the pending Merger could be exacerbated by any delays in completion of the Merger or termination of the Merger Agreement.

Each party's obligation to consummate the Merger is also subject to the accuracy of the representations and warranties of the other party (subject to customary materiality qualifications) and compliance in all material respects with the covenants and agreements contained in the Merger Agreement as of the closing of the Merger, including, with respect to us, covenants to conduct our business in the ordinary course and to not engage in certain kinds of material transactions prior to closing. In addition, the Merger Agreement may be terminated under certain specified circumstances, including, but not limited to, in connection with a change in the recommendation of our Board of Directors to enter into an agreement for a Superior Proposal (as defined in the Merger Agreement). As a result, we cannot assure you that the Merger will be completed, even if our stockholders approve the Merger, or that, if completed, it will be exactly on the terms set forth in the Merger Agreement or within the expected time frame.

We may not complete the proposed Merger within the time frame we anticipate or at all, which could have an adverse effect on our business, financial results and/or operations.

The proposed Merger may not be completed within the expected timeframe, or at all, as a result of various factors and conditions, some of which may be beyond our control. If the Merger is not completed for any reason, including as a result of our stockholders failing to adopt the Merger Agreement, our stockholders will not receive any payment for their shares of our common stock in connection with the Merger. Instead, we will remain a public company, our common stock will continue to be listed and traded on the New York Stock Exchange and registered under the Exchange Act of 1934, as amended, and we will be required to continue to file periodic reports with the SEC. Moreover, our ongoing business may be materially adversely affected, and we would be subject to a number of risks, including the following:

- we may experience negative reactions from the financial markets, including negative impacts on our stock price, and it is uncertain when, if ever, the price of the shares would return to the prices at which the shares currently trade;
- we may experience negative publicity, which could have an adverse effect on our ongoing operations including, but not limited to, retaining and attracting employees, customers, partners, suppliers and others with whom we do business;
- we will still be required to pay certain significant costs relating to the Merger, such as legal, accounting, financial advisory, printing and other professional services fees, which may relate to activities that we would not have undertaken other than in connection with the Merger;
- we may be required to pay a cash termination fee to Parent, as required under the Merger Agreement under certain circumstances;
- while the Merger Agreement is in effect, we are subject to restrictions on our business activities, including, among other things, restrictions on our ability to engage in certain kinds of material transactions, which could prevent us from pursuing strategic business opportunities, taking actions with respect to our business that we may consider advantageous and responding effectively and/or timely to competitive pressures and industry developments, and may as a result materially adversely affect our business, results of operations and financial condition;
- matters relating to the Merger require substantial commitments of time and resources by our management, which could result in the distraction of management from ongoing business operations and pursuing other opportunities that could have been beneficial to us; and
- we may commit significant time and resources to defending against litigation related to the Merger.

If the Merger is not consummated, the risks described above may materialize, and they may have a material adverse effect on our business operations, financial results and stock price, particularly to the extent that the current market price of our common stock reflects an assumption that the Merger will be completed.

We will be subject to various uncertainties while the Merger is pending that may cause disruption and may make it more difficult to maintain relationships with customers and other third-party business partners.
Our efforts to complete the Merger could cause substantial disruptions in, and create uncertainty surrounding, our business, which may materially adversely affect our results of operation and our business. Uncertainty as to whether the Merger will be completed may affect our ability to recruit prospective employees or to retain and motivate existing employees. Employee retention may be particularly challenging while the Merger is pending because employees may experience uncertainty about their roles following the Merger. As mentioned above, a substantial amount of our management's and employees' attention is being directed toward the completion of the Merger and thus is being diverted from our day-to-day operations. Uncertainty as to our future could adversely affect our business and our relationship with customers and potential customers. For example, customers, suppliers and other third parties may defer decisions concerning working with us, or seek to change existing business relationships with us. Changes to or termination of existing business relationships could adversely affect our revenue, earnings and financial condition, as well as the market price of our common stock. The adverse effects of the pendency of the Merger could be exacerbated by any delays in completion of the Merger or termination of the Merger Agreement.

In certain instances, the Merger Agreement requires us to pay a termination fee to Parent, which could affect the decisions of a third party considering making an alternative acquisition proposal.
Under the terms of the Merger Agreement, we may be required to pay Parent a termination fee under specified conditions, including in the event Parent terminates the Merger Agreement before receipt of our stockholders' approval due to a change in recommendation by our Board of Directors, in the event we terminate the Merger Agreement to enter into a Superior Proposal, or in the event we enter into an alternative transaction within twelve months of termination of the Merger Agreement in certain circumstances and the alternative transaction is consummated. This payment could affect the structure, pricing and terms proposed by a third party seeking to acquire or merge with us and could discourage a third party from making a competing acquisition proposal, including a proposal that would be more favorable to our stockholders than the Merger.

We have incurred, and will continue to incur, direct and indirect costs as a result of the Merger.
We have incurred, and will continue to incur, significant costs and expenses, including regulatory costs, fees for professional services and other transaction costs in connection with the Merger, for which we will have received little or no benefit if the Merger is not completed. There are a number of factors beyond our control that could affect the total amount or the timing of these costs and expenses. Many of these fees and costs will be payable by us even if the Merger is not completed and may relate to activities that we would not have undertaken other than to complete the Merger.

Litigation challenging the Merger Agreement may prevent the Merger from being consummated within the expected timeframe or at all.
Lawsuits may be filed against us, our Board of Directors or other parties to the Merger Agreement, challenging our acquisition by Parent making other claims in connection therewith. Such lawsuits may be brought by our purported stockholders and may seek, among other things, to enjoin consummation of the Merger. One of the conditions to the consummation of the Merger is that the consummation of the Merger is not restrained, made illegal, enjoined or prohibited by any order or legal or regulatory restraint or prohibition of a court of competent jurisdiction or any governmental entity. As such, if the plaintiffs in such potential lawsuits are successful in obtaining an injunction prohibiting the defendants from completing the Merger on the agreed upon terms, then such injunction may prevent the Merger from becoming effective, or from becoming effective within the expected timeframe.

ITEM 1B.UNRESOLVED STAFF COMMENTS.

None

ITEM 2. PROPERTIES.

We lease our principal executive offices, which are located at 500 North Field Drive, Lake Forest, Illinois, 60045.

	Reportable Segments				
	Motorparts	Performance Solutions	Clean Air	Powertrain	Total
Manufacturing plants:					
North America	7	11	16	19	53
Europe	3	17	21	28	69
South America	3	2	2	4	11
Asia Pacific	3	17	26	17	63
	16	47	65	68	196
Engineering and technical facilities	6	15	8	9	38
Distribution centers and warehouses	29	—	—	—	29
Total at December 31, 2021	51	62	73	77	263
Lease	24	24	46	15	109
Own	27	38	27	62	154
Total at December 31, 2021	51	62	73	77	263

Our manufacturing facilities are located in Argentina, Australia, Belgium, Brazil, Canada, China, Czech Republic, France, Germany, Hungary, India, Italy, Japan, Mexico, Morocco, Philippines, Poland, Portugal, Romania, Russia, South Africa, South Korea, Spain, Sweden, Thailand, the United Kingdom, the U.S., and Vietnam.

Within our manufacturing facilities listed above, we operate 34 joint ventures in which we own a controlling interest. In addition, we have numerous joint ventures in which we hold a noncontrolling interest that operate manufacturing facilities primarily in China, Turkey, and the U.S., which are not included in the table above.

Certain of our engineering and technical facilities listed above are located at our manufacturing facilities. We also have warehouses and distribution facilities at our manufacturing sites and a few off-site locations, substantially all of which we lease, and a network of 10 technical support centers that provide some of the most comprehensive training programs in the industry that educate our partners and customers with emerging vehicle technologies and vehicle repair operational skills.

We believe that substantially all of our plants and equipment are, in general, well maintained and in good operating condition. They are considered adequate for present needs and, as supplemented by planned construction, are expected to remain adequate for the near future.

We also believe that we generally have satisfactory title to the properties owned and used in our respective businesses. In the United States, substantially all of our owned real property is pledged to secure our obligations under our senior credit facility.

ITEM 3.LEGAL PROCEEDINGS.

We are involved in environmental remediation matters, legal proceedings, claims (including warranty claims), and investigations. These matters are typically incidental to the conduct of our business and create the potential for contingent losses. We accrue for potential contingent losses when our review of available facts indicates that it is probable a loss has been incurred and the amount of the loss is reasonably estimable. Each quarter, we assess our loss contingencies based upon currently available facts, existing technology, presently enacted laws and regulations, and taking into consideration the likely effects of inflation and other societal and economic factors and record adjustments to these reserves as required. As an example, we consider all available evidence, including prior experience in remediation of contaminated sites, other companies' cleanup experiences and data released by the U.S. Environmental Protection Agency or other organizations when we evaluate our environmental remediation contingencies. All of our loss contingency estimates are subject to revision in future periods based on actual costs or new information. With respect to our environmental liabilities, where future cash flows are fixed or reliably determinable, we have discounted those liabilities. We evaluate recoveries separately from the liability and, when they are assured, recoveries are recorded and reported separately from the associated liability in our consolidated financial statements.

Environmental Matters

We are subject to a variety of environmental and pollution control laws and regulations in all jurisdictions in which we operate. We have been notified by the U.S. Environmental Protection Agency, other national environmental agencies, and various provincial and state agencies that we may be a potentially responsible party ("PRP") under such laws for the cost of remediating hazardous substances pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") and other national and state or provincial environmental laws. PRP designation typically requires the funding of site investigations and subsequent remedial activities. Many of the sites that are likely to be the costliest to remediate are often current or former commercial waste disposal facilities to which numerous companies sent wastes. Despite the potential joint and several liability which might be imposed on us under CERCLA and some of the other laws pertaining to these sites, our share of the total waste sent to these sites generally has been small. We believe our exposure for liability at these sites is limited.

On a global basis, we have also identified certain other present and former properties at which we may be responsible for cleaning up or addressing environmental contamination, in some cases, as a result of contractual commitments and/or federal or state environmental laws. We are actively seeking to resolve our actual and potential statutory, regulatory, and contractual obligations.

At December 31, 2021, we have an obligation to remediate or contribute towards the remediation of certain sites, including the sites discussed above at which we may be a PRP.

Our estimated share of environmental remediation costs for all these sites is recognized in the consolidated balance sheets and the amounts are as follows:

	December 31	
	2021	2020
Accrued expenses and other current liabilities	$ 8	$ 8
Deferred credits and other liabilities	23	26
	$ 31	$ 34

In addition to amounts described above, we estimate that we will make expenditures for property, plant and equipment for environmental matters of approximately $9 million in 2022 and $1 million in 2023.

Based on information known to us from site investigations and the professional judgment of consultants, we have established reserves that we believe are adequate for these costs. Although we believe these estimates of remediation costs are reasonable and are based on the latest available information, the costs are estimates, difficult to quantify based on the complexity of the issues, and are subject to revision as more information becomes available about the extent of remediation required. At some sites, we expect that other parties will contribute to the remediation costs. In addition, certain environmental statutes provide that our liability could be joint and several, meaning that we could be required to pay amounts in excess of our share of remediation costs. The financial strength of other PRPs at these sites has been considered, where appropriate, in our determination of our estimated liability. We do not believe that any potential costs associated with our current status as a PRP, or as a liable party at the other locations referenced herein, will be material to our consolidated financial position, results of operations, or liquidity.

At December 31, 2021 and 2020, we have indemnifications in place on certain of these environmental reserves, which is not considered material to our consolidated financial statements.

Other Legal Proceedings, Claims and Investigations
For many years, we have been and continue to be subject to lawsuits initiated by claimants alleging health problems as a result of exposure to asbestos. Our current docket of active and inactive cases is less than 500 cases in the U.S. and less than 50 in Europe.

With respect to the claims filed in the U.S., the substantial majority of the claims are related to alleged exposure to asbestos in our line of Walker® exhaust automotive products although a significant number of those claims appear also to involve occupational exposures sustained in industries other than automotive. A small number of claims have been asserted against one of our subsidiaries by railroad workers alleging exposure to asbestos products in railroad cars. We believe, based on scientific and other evidence, it is unlikely that U.S. claimants were exposed to asbestos by our former products and that, in any event, they would not be at increased risk of asbestos-related disease based on their work with these products. Further, many of these cases involve numerous defendants. Additionally, in many cases the plaintiffs either do not specify any, or specify the jurisdictional minimum, dollar amount for damages.

With respect to the claims filed in Europe, the substantial majority relate to occupational exposure claims brought by current and former employees of Federal-Mogul facilities in France and amounts paid out were not material. A small number of occupational exposure claims have also been asserted against Federal-Mogul entities in Italy and Spain.

As major asbestos manufacturers and/or users continue to go out of business or file for bankruptcy, we may experience an increased number of these claims. We vigorously defend ourselves against these claims as part of our ordinary course of business. In future periods, we could be subject to cash costs or charges to earnings if any of these matters are resolved unfavorably to us. To date, with respect to claims that have proceeded sufficiently through the judicial process, we have regularly achieved favorable resolutions. Accordingly, we presently believe that these asbestos-related claims will not have a material adverse effect on our consolidated financial position, results of operations or liquidity.

We are also from time to time involved in other legal proceedings, claims or investigations. Some of these matters involve allegations of damages against us relating to environmental liabilities (including toxic tort, property damage and remediation), intellectual property matters (including patent, trademark and copyright infringement, and licensing disputes), personal injury claims (including injuries due to product failure, design or warning issues, and other product liability related matters), taxes, unclaimed property, employment matters, and commercial or contractual disputes, sometimes related to acquisitions or divestitures. Additionally, some of these matters involve allegations relating to legal compliance.

While we vigorously defend ourselves against all of these legal proceedings, claims and investigations and take other actions to minimize our potential exposure, in future periods, we could be subject to cash costs or charges to earnings if any of these matters are resolved on unfavorable terms. Although the ultimate outcome of any legal matter cannot be predicted with certainty, based on current information, including our assessment of the merits of the particular claim, we do not expect the legal proceedings, claims or investigations currently pending against us will have any material adverse effect on our consolidated financial position, results of operations or liquidity.

Warranty Matters
We provide warranties on some of our products. The warranty terms vary but range from one year up to limited lifetime warranties on some of our premium aftermarket products. Provisions for estimated expenses related to product warranty are made at the time products are sold or when specific warranty issues are identified with our products. These estimates are established using historical information about the nature, frequency, and average cost of warranty claims. We believe that the warranty reserve is appropriate; however, actual claims incurred could differ from the original estimates, requiring adjustments to the reserve. The reserve is included in both current and long-term liabilities on the consolidated balance sheets.

ITEM 4.MINE SAFETY DISCLOSURES.

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The following provides information concerning the persons who serve as our executive officers as of February 24, 2022.

Name and Age	Offices Held
Brian J. Kesseler (55)	Chief Executive Officer
Kevin W. Baird (60)	Executive Vice President and Chief Operating Officer
Matti Masanovich (50)	Executive Vice President and Chief Financial Officer
Rainer Jueckstock (62)	Executive Vice President and President Powertrain
Scott Usitalo (63)	Executive Vice President and President Motorparts
John W. Wehrenberg (54)	Executive Vice President and President Performance Solutions
Thomas J. Sabatino, Jr. (63)	Executive Vice President, General Counsel and Corporate Secretary
Kaled Awada (47)	Executive Vice President and Chief Human Resources Officer
John S. Patouhas (55)	Vice President and Chief Accounting Officer

Brian J. Kesseler — Mr. Kesseler became Chief Executive Officer in January 2020. He served as Co-Chief Executive Officer from October 2018 to January 2020. He was previously Chief Executive Officer from May 2017 to September 2018. He served as Chief Operating Officer from January 2015 to May 2017. Prior to joining Tenneco, he spent more than 20 years working for Johnson Controls Inc., most recently serving as President of the Johnson Controls Power Solutions business. In 2013, he was elected a corporate officer, and was a member of the Johnson Controls executive operating team. Mr. Kesseler also served as the sponsor of Johnson Controls' Manufacturing Operations Council. Mr. Kesseler joined JCI in 1994 and during his tenure held leadership positions in all of the company's business units, including serving as Vice President and General Manager, Service-North America, Systems and Services Europe, and Unitary Products Group, for the Building Efficiency business. He began his career with the Ford Motor Company in 1989 and worked in North America Assembly Operations for five years, specializing in manufacturing management. Mr. Kesseler became a director of our company in October 2016.

Kevin W. Baird — Mr. Baird joined Tenneco as the Executive Vice President and Chief Operating Officer in August 2020. Prior to joining Tenneco, Mr. Baird was at Guardian Industries ("Guardian"), a wholly owned subsidiary of Koch Industries, Inc., where he spent the prior six years serving as the Chief Executive Officer of its Guardian Glass business. Baird joined Guardian in 2008 as the Chief Executive Officer of SRG Global, Inc., Guardian's automotive trim business.

Matti Masanovich — Mr. Masanovich joined Tenneco as the Executive Vice President and Chief Financial Officer in August 2020. Prior to joining Tenneco, Mr. Masanovich was Chief Financial Officer of Superior Industries International, Inc. since September 2018. Previously, he was with General Cable Corporation, serving from November 2016 to July 2018 as Senior Vice President and Chief Financial Officer. Prior to that, Mr. Masanovich served as the short-term Vice President and Controller of International Automotive Components, an automotive interiors supplier, from August 2016 to October 2016. From November 2013 to April 2016, Mr. Masanovich served as Global Vice President of Finance, Packard Electrical and Electronic Architecture (E/EA) Division in Shanghai, China at APTIV (formerly Delphi Automotive).

Rainer Jueckstock — Mr. Jueckstock joined Tenneco as Executive Vice President and President Powertrain in October 2018. Prior to joining Tenneco, Mr. Jueckstock was Co-Chairman of the Board and Co-Chief Executive Officer of Federal-Mogul LLC from 2014 to 2018, and Chief Executive Officer, Federal-Mogul Powertrain from 2012 to 2018. Prior to his Co-Chairman and Co-Chief Executive Officer positions, Mr. Jueckstock was Senior Vice President, Powertrain Energy from 2005 to 2012, a member of the Strategy Board from 2005 to 2012 and an officer of Federal-Mogul Corporation from 2005 to 2012. He is a director of Plexus Corp.

Scott Usitalo — Mr. Usitalo has served as our Executive Vice President and President Motorparts since February 2020. Mr. Usitalo joined Tenneco as Senior Vice President and Chief Marketing Officer in November 2018. Prior to joining Tenneco, Mr. Usitalo was a marketing executive of Kimberly-Clark Company from 2007 to November 2018, most recently serving as Chief Marketing Officer. Prior to his role at Kimberly-Clark Company, Mr. Usitalo spent over 20 years with Procter & Gamble Company.

John W. Wehrenberg — Mr. Wehrenberg was named Executive Vice President, President of Performance Solutions in April 2021. Mr. Wehrenberg joined Tenneco in January 2018 and prior to his current role, he served as Tenneco's vice president and general manager. Prior to joining Tenneco, Mr. Wehrenberg was the chief operating officer for North America at Futuris Group from March 2015 to November 2017.

Thomas J. Sabatino, Jr. — Mr. Sabatino joined Tenneco as Executive Vice President, General Counsel and Corporate Secretary in February 2021. Prior to joining Tenneco, Mr. Sabatino served as the executive vice president and general counsel of Aetna from April 2016 to December 2018. Prior to joining Aetna, Mr. Sabatino served as senior executive vice president, chief administrative officer and general counsel of Hertz Global Holdings, Inc. from February 2015 through April 2016 and executive vice president, global legal and chief administrative officer of Walgreens Boots Alliance from September 2011 through January 2015.

Kaled Awada — Mr. Awada joined Tenneco as Senior Vice President and Chief Human Resources Officer in September 2018 and became the Executive Vice President and Chief Human Resources Officer in 2021. Prior to joining Tenneco, Mr. Awada held Human Resources leadership positions of increasing responsibility at Aptiv PLC for three years, most recently Global Vice President, Human Resources, for the company's electrical distribution systems business. He previously held global Human Resources roles with Eaton Corporation, Textron Fastening Systems, and Faurecia Exhaust Systems.

John S. Patouhas — Mr. Patouhas has served as our Vice President and Chief Accounting Officer since February 2019. Mr. Patouhas served since 2015 as Vice President and Chief Accounting Officer of Federal-Mogul (a subsidiary of Tenneco since October 2018). From 2011 to 2015, Mr. Patouhas was Vice President and Corporate Controller at Altair Engineering, a product design and development, engineering software and cloud computing software provider. He has over 20 years' experience in financial reporting and corporate accounting at a variety of companies, and began his career as an auditor with Deloitte. Mr. Patouhas is a CPA and CGMA, and has an MBA from Wayne State University.

PART II

ITEM 5.MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS, AND ISSUER PURCHASES OF EQUITY SECURITIES.

Our outstanding shares of Class A Common Stock, par value $0.01 per share, are listed on the New York Stock Exchange under the symbol "TEN." As of February 22, 2022, there were approximately 8,200 holders of record of our Class A Common Stock, including brokers and other nominees.

Purchase of equity securities by the issuer and affiliated purchasers
The following table provides information relating to our purchase of shares of our class A Common Stock in the fourth quarter of 2021. These purchases include shares withheld upon vesting of restricted stock for minimum tax withholding obligations. We generally intend to continue to satisfy statutory minimum tax withholding obligations in connection with the vesting of outstanding restricted stock through the withholding of shares.

Period	Total Number of Shares Purchased (1)	Average Price Paid	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Value of Shares That May Yet be Purchased Under These Plans or Programs
October 2021	25,444	$ 14.50	—	$ —
November 2021	—	$ —	—	$ —
December 2021	2,884	$ 10.99	—	$ —
Total	28,328	$ 14.14	—	$ —

(1) Shares withheld upon the vesting of share-settled units to satisfy employee tax withholding requirements.

We presently have no share repurchase program in place.

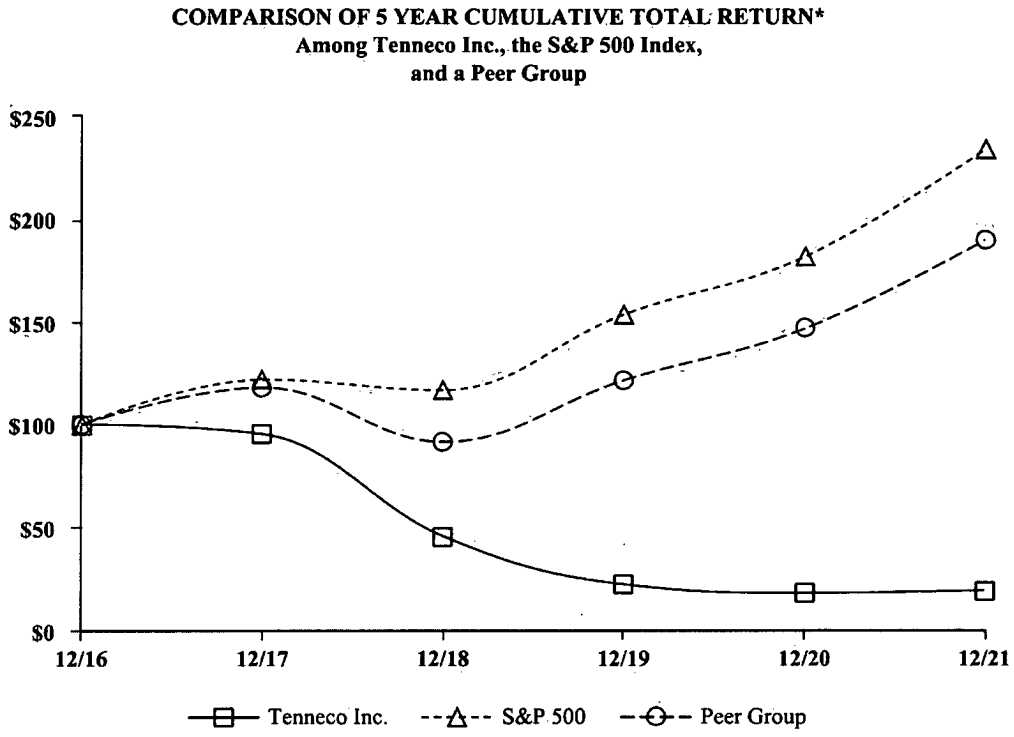
Dividends
The Company suspended the quarterly dividend in the second quarter of 2019. Our dividend program and the payment of any future cash dividends are subject to continued capital availability, the judgment of our Board of Directors and our continued compliance with the provisions pertaining to the payment of dividends under our debt agreements.

For additional information concerning our payment of dividends, see Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations".

Recent sales of unregistered equity securities
None.

Share Performance

The following graph shows a five-year comparison of the cumulative total stockholder return on Tenneco's common stock as compared to the cumulative total return of two other indexes: a custom composite index ("Peer Group") and the Standard & Poor's 500 Composite Stock Price Index. The companies included in the Peer Group are: American Axle & Manufacturing Co., BorgWarner Inc., Cummins Inc., Johnson Controls International Plc, Lear Corp., Magna International Inc., and Meritor, Inc. These comparisons assume an initial investment of $100 and the reinvestment of dividends.



*$100 invested on 12/31/16 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

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	As of December 31					
	2016	2017	2018	2019	2020	2021
Tenneco Inc.	$ 100.00	$ 95.31	$ 45.64	$ 21.99	$ 17.79	$ 18.97
S&P 500	$ 100.00	$ 121.83	$ 116.49	$ 153.17	$ 181.35	$ 233.41
Peer Group	$ 100.00	$ 118.12	$ 91.47	$ 121.53	$ 146.75	$ 189.63

The graph and other information furnished in the section titled "Share Performance" under this Part II, Item 5 of this Form 10-K shall not be deemed to be "soliciting" material or to be "filed" with the Securities and Exchange Commission or subject to Regulation 14A or 14C, or to the liabilities of Section 18 of the Securities Exchange Act of 1934, as amended.

ITEM 6. SELECTED FINANCIAL DATA.

Not applicable.

ITEM 7.MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

You should read the following discussion and analysis in conjunction with the consolidated financial statements and related notes included in Item 8, "Financial Statements and Supplementary Data". All references to "Tenneco," "we," "us," "our" and "the Company" refer to Tenneco Inc. and its consolidated subsidiaries. Notes referenced in this discussion and analysis refer to the notes to consolidated financial statements that are found in Item 8, "Financial Statements and Supplementary Data".

Refer to Item 1, "Business" for discussion of the Proposed Merger.

OVERVIEW

Our Business

We design, manufacture, market, and distribute products and services for light vehicle, commercial truck, off-highway, industrial, motorsport, and aftermarket customers. Our business consists of four operating segments, Motorparts, Performance Solutions, Clean Air, and Powertrain and serves both original equipment ("OE") manufacturers and the repair and replacement markets worldwide. We supply OE parts to vehicle manufacturers for use in light vehicles, commercial vehicles, and other mobility markets; and the global aftermarket with replacement parts that are sold to wholesalers, retailers, and installers, as well as original equipment service ("OES") parts to OE customers to support their service channels. We serve our customers through our brands, including Monroe®, Champion®, Öhlins®, MOOG®, Walker®, Fel-Pro®, Wagner®, Ferodo®, Rancho®, Thrush®, National®, and Sealed Power®; and others. As of December 31, 2021, we operated 196 manufacturing facilities worldwide and employed approximately 71,000 people to service our customers' demands.

Factors that continue to be critical to our success include winning new business awards, managing our overall global manufacturing and fulfillment footprint to ensure proper placement and workforce levels in line with business needs, maintaining competitive wages and benefits, maximizing efficiencies in manufacturing processes, positioning the business to adapt to changes in vehicle electrification, and reducing overall costs. In addition, our ability to adapt to key industry trends, such as a shift in consumer preferences to other vehicles in response to higher fuel costs and other economic, social or environmental factors, increasing technologically sophisticated content, changing aftermarket distribution channels, increasing environmental standards, and extended product life of automotive parts, also play a critical role in our success. Other factors that are critical to our success include adjusting to economic challenges such as managing the availability of materials or increases in the cost of raw materials and our ability to successfully reduce the effect of any such cost increases through material substitutions, cost reduction initiatives, and other methods.

Change in Reportable Segments

In the first quarter of 2021, we made a change to our operating segments. This change consisted of moving a reporting unit from the Powertrain segment to the Ride Performance segment to align with a change in how our Chief Operating Decision Maker allocates resources and assesses performance against our key growth strategies. With this segment change and our enhanced focus on growth, Ride Performance was renamed Performance Solutions. As such, prior period operating segment results and related disclosures have been conformed to reflect our current operating segments.

Tenneco consists of four operating segments, Motorparts, Performance Solutions, Clean Air, and Powertrain:

- The Motorparts segment designs, manufactures, sources, markets, and distributes a broad portfolio of brand-name products in the global vehicle aftermarket while also servicing the OES market. Motorparts products are organized into categories, including shocks and struts, steering and suspension, braking, sealing, emissions control, engine, and maintenance;
- The Performance Solutions segment designs, manufactures, markets, and distributes a variety of products and systems designed to optimize the ride experience to a global OE customer base, including noise, vibration, and harshness performance materials, advanced suspension technologies, ride control, braking, and systems protection. Performance Solutions is agnostic to powertrain technologies;
- The Clean Air segment designs, manufactures, and distributes a variety of products and systems designed to reduce pollution and optimize engine performance, acoustic tuning, and weight on a vehicle for light vehicle, commercial truck, and off-highway OE customers; and
- The Powertrain segment designs, manufactures, and distributes a variety of OE powertrain products for light vehicle, commercial truck, off-highway, and industrial applications to OE customers for use in new vehicle production and OES parts to support their service and distribution channels.

Costs related to other business activities, primarily corporate headquarter functions, are disclosed separately from the four operating segments as "Corporate." See Note 18, "Segment and Geographic Area Information", in our consolidated financial statements included in Item 8 of this Form 10-K for additional information.

Financial Results for the Year Ended December 31, 2021

Consolidated revenues were $18,035 million, an increase of $2,656 million, or 17%, for the year ended December 31, 2021. The primary driver of the increase is higher sales volume of $2,048 million, largely attributable to the effects of COVID-19 in the prior year. The remaining increase is attributable to the favorable effects of foreign currency exchange of $337 million, and the net favorable effects of other items of $290 million, which includes recoveries of commodity price increases. These were partially offset by the effects of divestitures contributing a $19 million decrease in revenues.

Cost of sales was $15,665 million, an increase of $2,263 million, or 17%, for the year ended December 31, 2021. The primary driver of the increase is from higher sales volume of $1,697 million, largely attributable to the effects of COVID-19 in the prior year. The remaining increase is attributable to the unfavorable effects of materials sourcing of $422 million and the unfavorable effects of foreign currency exchange of $297 million. This was partially offset by the decrease in cost of sales of $18 million related to the net effects of divestitures and the net favorable effects of other costs of $97 million, which includes $9 million of margin during the year ended December 31, 2020 on discontinued product that was previously written-down. In addition, the Motorparts segment recognized a non-cash charge of $44 million in the year ended December 31, 2021 related to the write-down of inventory in connection with its initiative to rationalize its supply chain and distribution network, as compared to $82 million in the year ended December 31, 2020, a decrease of $38 million.

Results for the year ended December 31, 2021 was net income of $100 million as compared to a net loss of $1,460 million for the year ended December 31, 2020. The change from a net loss to net income was primarily driven by:

- a decrease in restructuring charges, net and non-cash asset impairment charges of $553 million primarily attributable to the impairment of long-lived asset groups recognized during year ended December 31, 2020 triggered by the effects of COVID-19 global pandemic on the Company's projected financial information, and decrease in charges related to global headcount and cost reduction initiatives;
- a decrease in non-cash goodwill and intangible impairment charges of $383 million, which was comprised of $267 million of goodwill impairment charges, $65 million of definite-lived intangible asset impairments, and $51 million of indefinite-lived intangible asset impairments recognized during year ended December 31, 2020;
- a decrease in income tax expense of $277 million primarily due to the full valuation allowances established for U.S. federal and state deferred taxes during the year ended December 31, 2020. This is partially offset by an increase in tax expense for the year ended December 31, 2021 due to higher net taxable income in certain non-U.S. jurisdictions when compared to the results for the year ended December 31, 2020;
- a decrease in depreciation and amortization of $46 million, primarily attributable to the effects of the impairments on property, plant and equipment recognized in the first quarter of 2020, as well as the effects of reductions in capital expenditures; and
- an increase in other income (expense), net of $34 million, primarily attributable to $32 million in gains on sale-leaseback transactions for the year ended December 31, 2021.

These favorable effects were partially offset by:

- an increase in selling, general, and administrative costs of $128 million, primarily due to higher compensation costs during the year ended December 31, 2021 and also includes the effects of cost reduction initiatives implemented in response to the effects of COVID-19, which consisted of unpaid furloughs, net pay decreases, and temporary support programs during the year ended December 31, 2020. There was also a favorable antitrust reserve change in estimate for $11 million during the year ended December 31, 2020.

Recent Trends and Market Conditions

There is inherent uncertainty in the continuation of the trends discussed below. In addition, there may be other factors or trends that can have an effect on our business.

The principal raw material that we use is steel. We obtain steel from a number of sources pursuant to various contractual and other arrangements. Due to recent supply chain constraints within the automotive industry, we may encounter difficulty in obtaining steel and other commodities at current contractual prices and as a result may incur higher costs to procure these items. In addition, the automotive industry continues to face a shortage of semiconductors, which has led to production disruptions globally and created operating challenges for the automotive supplier base. In September 2021, IHS Markit lowered its 2022 global light vehicle production forecasts due to the ongoing semiconductor shortage. We expect industry production to remain volatile for the foreseeable future and, sustained unfavorable commodity prices, volatility in commodity prices or changes in markets for a given commodity could negatively affect our operations.

We are experiencing other supply chain challenges, along with the effects of inflation on commodities and other purchases. Further, unfavorable conditions such as a general slowdown of the global or U.S. economy, uncertainty and volatility in the financial markets, or inflation (including labor inflation) and rising interest rates could result in higher operating expenses and project costs for us.

Our business and operating results are affected by the relative strength of:

General economic conditions

Our OE business is directly related to automotive vehicle production by our customers. Automotive production levels depend on a number of factors, including global and regional economic conditions. Demand for aftermarket products is driven by four primary factors: the number of vehicles in operation; the average age of vehicles; vehicle usage trends (primarily miles driven); and component failure and wear rates.

The COVID-19 global pandemic has negatively affected the global economy, disrupted global supply chains, and created extreme volatility and disruptions to capital and credit markets in the global financial markets. The extent of the effects of the COVID-19 pandemic will depend on a number of factors, including the duration and severity of the pandemic or subsequent resurgence of the outbreaks, the effects and extent of COVID-19 variants, related government responses, the rate of economic recovery from the pandemic, vaccination rates, and the effectiveness of available vaccines. There continues to be many uncertainties that remain related to COVID-19 that could negatively affect our results of operations, financial position, and cash flows.

Global vehicle production levels

Light vehicle production (According to IHS Markit, February 2022)

Global light vehicle production increased slightly by 3% for the year ended December 31, 2021 compared to 2020. Light vehicle production increased by 28% in India, 16% in South America, and 5% in China, while production levels were flat in North America and down by 4% in Europe.

Commercial truck production (According to IHS Markit, February 2022)

Global commercial truck production was flat for the year ended December 31, 2021 compared to 2020. Commercial truck production increased by 21% in North America, 14% in Europe, 79% in India, and 61% in Brazil, while commercial truck production in China fell 20% in 2021 when compared to 2020 which substantially offset the production increases in other regions.

Fuel efficiency, powertrain evolution, and vehicle electrification

Various jurisdictions around the world have announced plans to limit the production of new diesel and gasoline powered vehicles in the future. Major vehicle manufacturers have announced their intention to reduce and phase out production of diesel and gasoline powered vehicles during the next two decades. However, for the foreseeable future, it is expected that the majority of the powertrains for light and commercial vehicles will be gasoline and diesel engines (including hybrids, which combine a battery electric drive with a combustion engine). While we see similar electrification trends for light vehicle and commercial vehicle, we expect light vehicles will experience those trends in advance of commercial vehicles. We expect to monitor those trends and adopt our business strategy accordingly.

RESULTS OF OPERATIONS

Year Ended December 31, 2021 Compared to Year Ended December 31, 2020

Consolidated Results of Operations

	Year Ended December 31		Favorable (Unfavorable)	
	2021	2020	$ Change	% Change (a)
	(millions except percent and per share amounts)			
Revenues				
Net sales and operating revenues	$ 18,035	$ 15,379	$ 2,656	17 %
Costs and expenses				
Cost of sales (exclusive of depreciation and amortization)	15,665	13,402	(2,263)	(17) %
Selling, general, and administrative	1,017	889	(128)	(14) %
Depreciation and amortization	593	639	46	7 %
Engineering, research, and development	285	273	(12)	(4) %
Restructuring charges, net and asset impairments	69	622	553	89 %
Goodwill and intangible impairment charges	—	383	383	100 %
	17,629	16,208	(1,421)	(9) %
Other income (expense)				
Non-service pension and postretirement benefit (costs) credits	13	18	(5)	(28) %
Equity in earnings (losses) of nonconsolidated affiliates, net of tax	57	47	10	21 %
Gain (loss) on extinguishment of debt	8	2	6	n/m
Other income (expense), net	72	38	34	89 %
	150	105	45	43 %
Earnings (loss) before interest expense, income taxes, and noncontrolling interests	556	(724)	1,280	177 %
Interest expense	(274)	(277)	3	1 %
Earnings (loss) before income taxes and noncontrolling interests	282	(1,001)	1,283	128 %
Income tax (expense) benefit	(182)	(459)	277	60 %
Net income (loss)	100	(1,460)	1,560	107 %
Less: Net income (loss) attributable to noncontrolling interests	65	61	(4)	(7) %
Net income (loss) attributable to Tenneco Inc.	$ 35	$ (1,521)	$ 1,556	102 %
Earnings (loss) per share				
Basic earnings (loss) per share:				
Earnings (loss) per share	$ 0.43	$ (18.69)		
Weighted average shares outstanding	82.2	81.4		
Diluted earnings (loss) per share:				
Earnings (loss) per share	$ 0.42	$ (18.69)		
Weighted average shares outstanding	83.6	81.4		

(a) Percentages above denoted as "n/m" are not meaningful to present in the table.

Revenues

The following table lists the primary drivers behind the change in revenues (amounts in millions):

Year Ended December 31, 2020	$ 15,379
Acquisitions and divestitures, net	(19)
Drivers in the change of organic revenues:	
Volume and mix	2,048
Currency exchange rates	337
Others	290
Year Ended December 31, 2021	$ 18,035

Cost of sales
The following table lists the primary drivers behind the change in cost of sales (amounts in millions):

Year Ended December 31, 2020	$ 13,402
Acquisitions and divestitures, net	(18)
Drivers in the change of organic cost of sales:	
Volume and mix	1,697
Materials sourcing	422
Currency exchange rates	297
Inventory write-down	(38)
Others	(97)
Year Ended December 31, 2021	$ 15,665

Selling, general, and administrative (SG&A)
SG&A increased by $128 million to $1,017 million compared to $889 million for the year ended December 31, 2020. The increase was primarily due to higher compensation costs during the year ended December 31, 2021 and also includes the effects of cost reduction initiatives implemented in response to the effects of COVID-19, which consisted of unpaid furloughs, net pay decreases, and temporary support programs during the year ended December 31, 2020. There was also a favorable antitrust reserve change in estimate for $11 million during the year ended December 31, 2020.

Depreciation and amortization
Depreciation and amortization expense decreased by $46 million to $593 million as compared to $639 million for the year ended December 31, 2020, primarily attributable to the effects of the impairments on property, plant and equipment recognized in the first quarter of 2020, as well as the effects of reductions in capital expenditures.

Engineering, research, and development
Engineering, research, and development increased by $12 million to $285 million as compared to $273 million for the year ended December 31, 2020. The increase was due primarily to the favorable effects during the year ended December 31, 2020 of cost reduction initiatives implemented in response to the COVID-19 global pandemic.

Restructuring charges, net and asset impairments
Restructuring charges, net and asset impairments decreased by $553 million to $69 million as compared to $622 million for the year ended December 31, 2020. The decrease is primarily attributable to the non recurrence of non-cash property, plant and equipment asset impairments in the Performance Solutions segment of $455 million, and non-cash asset impairment charges for operating lease right-of-use asset and property, plant and equipment in the Motorparts segment of $25 million related to its initiative to rationalize its supply chain and distribution network during the year ended December 31, 2020. In addition, there was a decrease of $71 million (inclusive of an increase of $18 million in revisions to previously recorded estimates) for cash severance costs expected to be paid as part of global headcount and cost reduction actions, including plant closures, across all segments and regions, and a decrease of $10 million for operating lease right-of-use asset and property, plant and equipment impairment charges in the corporate component, partially offset by an increase of $8 million in impairments related to assets held for sale for the year ended December 31, 2021 as compared to the year ended December 31, 2020.

Goodwill and intangible impairment charges
Goodwill and intangible impairment charges decreased by $383 million, which was comprised of $267 million of non-cash goodwill impairment charges, $65 million of non-cash definite-lived intangible asset impairments, and $51 million of non-cash indefinite-lived intangible asset impairments during the year ended December 31, 2020, which were the result of the effects of COVID-19 on the projected financial information during the first quarter of 2020.

Non-service pension and postretirement benefit (costs)/credits
Non-service pension and postretirement benefit (costs)/credits decreased by $5 million to a net credit of $13 million as compared to a net credit of $18 million for the year ended December 31, 2020. The change was primarily attributable to the elimination of certain retirement health care benefits for participants in one of our union agreements in the U.S. that resulted in a non-cash curtailment gain of $21 million for the year ended December 31, 2020. This was partially offset by a decrease in non-cash settlement charges of $6 million in connection with a plant closure. The remaining increase in the net credit is primarily attributable to lower interest costs resulting from lower discount rates, partially offset by higher amortization expense.

Equity in earnings (losses) of nonconsolidated affiliates, net of tax
Equity in earnings (losses) of nonconsolidated affiliates, net of tax increased by $10 million to $57 million as compared to $47 million for the year ended December 31, 2020. The increase is primarily attributable to the effects of COVID-19 in the prior year affecting the equity in earnings (losses) of nonconsolidated affiliates located in Turkey, China and Korea.

Gain (loss) on extinguishment of debt
A non-cash gain on extinguishment of debt of $8 million was recognized for the year ended December 31, 2021 related to the discharge of the 4.875% euro floating rate notes due 2024 and 5.000% euro fixed rate notes due 2024. A non-cash gain on extinguishment of debt of $2 million was recognized for the year ended December 31, 2020 related to the redemption of the 4.875% euro denominated senior secured notes during the fourth quarter of 2020.

Other income (expense), net
Other income (expense), net increased by $34 million to $72 million as compared to $38 million for the year ended December 31, 2020. The increase was primarily attributable to $32 million in gains on sale-leaseback transactions for the year ended December 31, 2021.

Interest expense
Interest expense decreased by $3 million (substantially all in our U.S. operations) to $274 million as compared to $277 million for the year ended December 31, 2020. The $3 million decrease was primarily due to lower interest expense on lower average outstanding borrowings on the revolver and term loans and the effects of lower interest rates on variable rate debt, partially offset by the effects of higher interest rates on fixed rate debt during the year ended December 31, 2021 as compared to the year ended December 31, 2020. For more detailed explanations on our debt structure and senior credit facility refer to "Liquidity and Capital Resources" later in this Management's Discussion and Analysis.

Income tax (expense) benefit
Income tax expense decreased by $277 million to $182 million on earnings before income taxes and noncontrolling interests of $282 million for the year ended December 31, 2021 compared to income tax expense of $459 million on loss before income taxes and noncontrolling interests of $1,001 million for the year ended December 31, 2020. The decrease is primarily due to the full valuation allowances established for U.S. federal and state deferred taxes during the year ended December 31, 2020. This is partially offset by an increase in tax expense for the year ended December 31, 2021 due to higher net taxable income in certain non-U.S. jurisdictions when compared to the results for the year ended December 31, 2020.

Net income (loss)
Results for the year ended December 31, 2021 was net income of $100 million as compared to a net loss of $1,460 million for the year ended December 31, 2020 primarily due to the aforementioned items.

Earnings (loss) before interest expense, income taxes, noncontrolling interests, and depreciation and amortization ("EBITDA including noncontrolling interests")
The following table presents the reconciliation from EBITDA including noncontrolling interests to net income (loss) (amounts in millions):

	Year Ended December 31	
	2021	2020
EBITDA including noncontrolling interests:		
Motorparts	$ 375	$ 155
Performance Solutions	119	(634)
Clean Air	584	440
Powertrain	346	169
Corporate	(275)	(215)
Depreciation and amortization	(593)	(639)
Earnings (loss) before interest expense, income taxes, and noncontrolling interests	556	(724)
Interest expense	(274)	(277)
Income tax (expense) benefit	(182)	(459)
Net income (loss)	$ 100	$ (1,460)

See "Segment Results of Operations" for further information on EBITDA including noncontrolling interests.

Segment Results of Operations

Overview of Net Sales and Operating Revenues
Our Clean Air segment has substrate sales. Substrates are porous ceramic filters coated with a catalyst - typically, precious metals such as platinum, palladium and rhodium. We do not manufacture substrates, they are supplied to us by Tier 2 suppliers generally directed by our OE customers. We generally earn a small margin on these components of the system. These substrate components have been increasing as a percentage of our revenue as the need grows for more sophisticated emission control solutions to meet more stringent environmental regulations, particularly for commercial on road and off-road vehicles, and as we capture more diesel aftertreatment business. While these substrates dilute our gross margin percentage, they are a necessary component of an emission control system.

We disclose substrate sales amounts because we believe investors utilize this information to understand the effect of this portion of our revenues on our overall business and because it removes the effect of potentially volatile precious metals pricing from our revenues. While our OE customers generally assume the risk of precious metals pricing volatility, it affects our reported revenues.

The table below reflects the main drivers for changes in our segment revenues (amounts in millions):

	Segment Revenue						
			Clean Air				
	Motorparts	Performance Solutions	Value-add Revenues	Substrate Sales	Total	Powertrain	Total
Year Ended December 31, 2020	$ 2,725	$ 2,502	$ 3,366	$ 3,355	$ 6,721	$ 3,431	$ 15,379
Acquisitions and divestitures, net	(19)	—	—	—	—	—	(19)
Drivers in the change of organic revenues:							
Volume and mix	129	288	340	838	1,178	453	2,048
Currency exchange rates	28	64	70	98	168	77	337
Others	128	54	68	—	68	40	290
Year Ended December 31, 2021	$ 2,991	$ 2,908	$ 3,844	$ 4,291	$ 8,135	$ 4,001	$ 18,035

Segment Revenue
The primary factor contributing to the increase in sales volume for the year ended December 31, 2021, as compared to the year ended December 31, 2020, is the effects of COVID-19 in the prior year. Additional factors by segment are discussed below.

Motorparts
Motorparts revenue increased $266 million, or 10%, as compared to the year ended December 31, 2020. Higher sales volume contributed $129 million to the increase, foreign currency exchange had a $28 million favorable effect on Motorparts revenues and other net favorable effects, which includes recoveries of commodity price increases, contributed $128 million to the increase. These favorable effects were slightly offset by the decrease in revenues from divestitures of $19 million.

Performance Solutions
Performance Solutions revenue increased $406 million, or 16%, as compared to the year ended December 31, 2020. Higher light vehicle, commercial truck, and off-highway and other vehicle revenue contributed $288 million to the increase, foreign currency exchange had a $64 million favorable effect on Performance Solutions revenue, while other favorable effects, which includes recoveries of commodity price increases, increased revenue by $54 million.

Clean Air
Clean Air revenue increased $1,414 million, or 21%, as compared to the year ended December 31, 2020. The increase was primarily due to the increase in substrate sales of $936 million and the increase in value-add revenue of $478 million. Overall for the Clean Air segment, the main drivers of the value-add revenue increase was higher volume of $340 million attributable to the revenue from commercial truck, OES and off-highway and other, while light vehicle also improved and contributed to the value-add revenue increase when compared to the prior year. In addition, foreign currency exchange had a $70 million favorable effect on Clean Air value-add revenue, while other favorable effects, which includes recoveries of commodity price increases, increased value-add revenue by $68 million.

Powertrain
Powertrain revenue increased $570 million, or 17%, as compared to the year ended December 31, 2020. The increase of $453 million is primarily attributable to higher sales volume for commercial truck, light vehicle and OES, while industrial, off-highway and other revenues also improved and contributed to the increase when compared to the prior year. In addition, foreign currency exchange had a $77 million favorable effect on Powertrain revenue, while other favorable effects, which includes recoveries of commodity price increases, increased revenue by $40 million.

EBITDA including noncontrolling interests
The following table presents the EBITDA including noncontrolling interests by segment (amounts in millions):

	Year Ended December 31		2021 vs 2020 Change
	2021	2020	
EBITDA including noncontrolling interests by Segment:			
Motorparts	$ 375	$ 155	$ 220
Performance Solutions	$ 119	$ (634)	$ 753
Clean Air	$ 584	$ 440	$ 144
Powertrain	$ 346	$ 169	$ 177

Motorparts
Motorparts EBITDA including noncontrolling interests increased $220 million as compared to the year ended December 31, 2020. The increase is primarily attributable to higher sales volume and favorable mix, improved operating performance, favorable material sourcing and the non-recurrence of goodwill and intangible impairment charges of $110 million recognized during the year ended December 31, 2020. Also contributing to the increase in EBITDA including noncontrolling interests is the decrease in a non-cash charge to cost of sales of $38 million related to the write-down of inventory, a decrease in asset impairment charges of $24 million recognized in connection with its initiative to rationalize its supply chain and distribution network, and a decrease in restructuring charges related to cash severance benefits and other costs of $12 million as compared to the year ended December 31, 2020. These favorable factors were partially offset by higher SG&A costs (includes the prior year effects of cost reduction initiatives implemented in response to the effects of COVID-19) during the year ended December 31, 2021 as compared to the year ended December 31, 2020.

Performance Solutions
Performance Solutions EBITDA including noncontrolling interests increased $753 million as compared to the year ended December 31, 2020. The increase is primarily attributable to the non-recurrence of asset impairment charges of $455 million and goodwill and intangible impairment charges of $232 million recognized during the year ended December 31, 2020. Also contributing to the increase is higher sales volume, lower pension and postretirement benefit costs due to a plant closure during the year ended December 31, 2020, a decrease in restructuring charges related to cash severance benefits and other costs of $13 million, and a decrease in other restructuring related charges of $36 million during the year ended December 31, 2021 as compared to prior year. These favorable factors were partially offset by the effects of unfavorable materials sourcing, unfavorable operating performance and unfavorable mix during the year ended December 31, 2021 as compared to the year ended December 31, 2020.

Clean Air
Clean Air EBITDA including noncontrolling interests increased $144 million as compared to the year ended December 31, 2020. The increase is primarily attributable to higher sales volume, favorable operating performance, favorable material sourcing, gains on sale-leaseback transactions for $32 million recognized during the year ended December 31, 2021, and a decrease in restructuring charges related to cash severance benefits and other costs of $15 million during the year ended December 31, 2021 as compared to the year ended December 31, 2020. These favorable factors were partially offset by the effects of unfavorable mix and other non-restructuring asset impairments of $11 million during the year ended December 31, 2021, and the favorable antitrust reserve change in estimate for $11 million during the year ended December 31, 2020.

Powertrain
Powertrain EBITDA including noncontrolling interests increased $177 million as compared to the year ended December 31, 2020. The increase is primarily attributable to higher sales volume, favorable operating performance, the non recurrence of goodwill impairment charge of $41 million recognized during the year ended December 31, 2020, and a decrease in restructuring charges related to cash severance benefits and other costs of $28 million, as compared to the year ended December 31, 2020. These favorable factors were partially offset by unfavorable material sourcing during the year ended December 31, 2021 as compared to the year ended December 31, 2020.

The EBITDA including noncontrolling interests results shown in the preceding table include the following items, certain of which may have an effect on the comparability of EBITDA including noncontrolling interests results between periods (amounts in millions):

	Reportable Segments						
Year Ended December 31, 2021	Motorparts	Performance Solutions	Clean Air	Powertrain	Total	Corporate	Total
Restructuring charges, net	$ 5	$ 12	$ 7	$ 22	$ 46	$ 2	$ 48
Restructuring related costs	2	7	—	4	13	14	27
Asset impairments restructuring related	2	—	—	—	2	—	2
Other non-restructuring asset impairments	1	—	11	—	12	7	19
Inventory write-down(1)	44	—	—	—	44	—	44
Other costs (including strategic and transaction related)	—	—	—	—	—	17	17
Gain on extinguishment of debt	—	—	—	—	—	(8)	(8)
(Gain)/Loss on sale of assets/business(2)	2	—	(32)	—	(30)	—	(30)
Anti-dumping duty charge	3	—	—	—	3	—	3
Loss on sale of unconsolidated affiliate	—	4	—	—	4	—	4
Other	—	—	(2)	—	(2)	—	(2)
Total adjustments	$ 59	$ 23	$ (16)	$ 26	$ 92	$ 32	$ 124

(1) Non-cash charge of $44 million to write-down inventory in the Motorparts segment in connection with its initiative to rationalize its supply chain and distribution network.

(2) The $32 million gain on sale of assets for Clean Air segment represents gains on sale-leaseback transactions.

	Reportable Segments						
Year Ended December 31, 2020	Motorparts	Performance Solutions	Clean Air	Powertrain	Total	Corporate	Total
Restructuring charges, net	$ 17	$ 25	$ 22	$ 50	$ 114	$ 5	$ 119
Restructuring related costs	3	43	—	1	47	3	50
Asset impairments restructuring related	26	—	—	3	29	—	29
Other non-restructuring asset impairments	1	455	—	1	457	17	474
Inventory write-down(1)	73	—	—	—	73	—	73
Other costs (including strategic and transaction related)(2)	—	(2)	—	—	(2)	40	38
OPEB curtailment(3)	—	—	—	—	—	(21)	(21)
Antitrust reserve change in estimate	—	—	(11)	—	(11)	—	(11)
Gain on extinguishment of debt	—	—	—	—	—	(2)	(2)
(Gain)/Loss on sale of assets	—	(3)	—	—	(3)	1	(2)
Goodwill and intangibles impairment charges	110	232	—	41	383	—	383
Total adjustments	$ 230	$ 750	$ 11	$ 96	$ 1,087	$ 43	$ 1,130

(1) Non-cash charge of $82 million to write-down inventory in the Motorparts segment in connection with its initiative to rationalize its supply chain and distribution network, partially offset by $9 million margin on discontinued product that was previously written-down.

(2) Includes costs related to the acquisitions and expected separation.

(3) OPEB curtailment as a result of an amended union agreement that eliminated healthcare benefits for future retirees.

Year Ended December 31, 2020 Compared to Year Ended December 31, 2019

Consolidated Results of Operations

	Year Ended December 31		Favorable (Unfavorable)	
	2020	2019	$ Change	% Change [a]
	(millions except percent and per share amounts)			
Revenues				
Net sales and operating revenues	$ 15,379	$ 17,450	$ (2,071)	(12) %
Costs and expenses				
Cost of sales (exclusive of depreciation and amortization)	13,402	14,912	1,510	10 %
Selling, general, and administrative	889	1,138	249	22 %
Depreciation and amortization	639	673	34	5 %
Engineering, research, and development	273	324	51	16 %
Restructuring charges, net and asset impairments	622	126	(496)	n/m
Goodwill and intangible impairment charges	383	241	(142)	(59) %
	16,208	17,414	1,206	7 %
Other income (expense)				
Non-service pension and postretirement benefit (costs) credits	18	(11)	29	n/m
Equity in earnings (losses) of nonconsolidated affiliates, net of tax	47	43	4	9 %
Gain (loss) on extinguishment of debt	2	—	2	— %
Other income (expense), net	38	53	(15)	(28) %
	105	85	20	24 %
Earnings (loss) before interest expense, income taxes, and noncontrolling interests	(724)	121	(845)	n/m
Interest expense	(277)	(322)	45	14 %
Earnings (loss) before income taxes and noncontrolling interests	(1,001)	(201)	(800)	n/m
Income tax (expense) benefit	(459)	(19)	(440)	n/m
Net income (loss)	(1,460)	(220)	(1,240)	n/m
Less: Net income (loss) attributable to noncontrolling interests	61	114	(53)	(46) %
Net income (loss) attributable to Tenneco Inc.	$ (1,521)	$ (334)	$ (1,187)	n/m
Earnings (loss) per share				
Basic earnings (loss) per share:				
Earnings (loss) per share	$ (18.69)	$ (4.12)		
Weighted average shares outstanding	81.4	80.9		
Diluted earnings (loss) per share:				
Earnings (loss) per share	$ (18.69)	$ (4.12)		
Weighted average shares outstanding	81.4	80.9		

[a] Percentages above denoted as "n/m" are not meaningful to present in the table.

Revenues

Revenues decreased by $2,071 million, or 12%, as compared to the year ended December 31, 2019. The primary driver of the decrease is lower sales volume and unfavorable mix of $1,810 million, largely attributable to the effects of COVID-19. The remaining decrease is attributable to a decrease in revenues of $106 million, or less than 1%, related to the net effects of acquisitions and divestitures, the unfavorable effects of foreign currency exchange of $89 million, and the net unfavorable effects of other of $66 million.

The following table lists the primary drivers behind the change in revenues (amounts in millions):

Year Ended December 31, 2019	$ 17,450
Acquisitions and divestitures, net	(106)
Drivers in the change of organic revenues:	
Volume and mix	(1,810)
Currency exchange rates	(89)
Others	(66)
Year Ended December 31, 2020	$ 15,379

Cost of sales

Cost of sales decreased by $1,510 million, or 10%, as compared to the year ended December 31, 2019. The primary driver of the decrease is from lower sales volume of $1,212 million, largely attributable to the effects of COVID-19. The remaining decrease is attributable to a decrease in cost of sales of $96 million, or less than 1%, related to the net effects of acquisitions and divestitures, the favorable effects of materials sourcing of $87 million, the favorable effects of foreign currency exchange of $60 million, and the net favorable effects of other costs of $137 million. This was partially offset by a non-cash charge of $82 million related to the write-down of inventory in the Motorparts segment in connection with its initiative to rationalize its supply chain and distribution network. Included in other costs of $137 million, is $9 million of margin on discontinued product that was previously written-down.

The following table lists the primary drivers behind the change in cost of sales (amounts in millions):

Year Ended December 31, 2019	$ 14,912
Acquisitions and divestitures, net	(96)
Drivers in the change of organic cost of sales:	
Volume and mix	(1,212)
Material	(87)
Currency exchange rates	(60)
Inventory write-down	82
Others	(137)
Year Ended December 31, 2020	$ 13,402

Selling, general, and administrative

SG&A decreased by $249 million to $889 million compared to $1,138 million in the year ended December 31, 2019. The decrease was primarily due to $88 million in lower acquisition and expected separation costs, and the favorable effects of cost reduction initiatives implemented in response to the effects of COVID-19, including unpaid furloughs, net pay decreases, temporary support programs, and other compensation related expenses during the year ended December 31, 2020. In addition, SG&A includes a reduction of $9 million recognized for a non-income tax refund received in the year ended December 31, 2020.

Depreciation and amortization

Depreciation and amortization expense decreased by $34 million to $639 million compared to $673 million for the year ended December 31, 2019, primarily attributable to the effects of the impairments on property, plant and equipment recognized in the first quarter of 2020.

Engineering, research, and development

Engineering, research, and development decreased by $51 million to $273 million as compared to $324 million for the year ended December 31, 2019. The decrease was due primarily to the effects of COVID-19 and the favorable effects of cost reduction initiatives.

Restructuring charges, net and asset impairments

Restructuring charges, net and asset impairments increased by $496 million to $622 million as compared to $126 million for the year ended December 31, 2019. The increase is primarily attributable to non-cash property, plant and equipment asset impairments in the Performance Solutions segment of $455 million; non-cash asset impairment charges in the Motorparts segment of $25 million related to its initiative to rationalize its supply chain and distribution network; and a non-cash asset impairment charge of $17 million for operating lease right-of-use assets and property, plant and equipment in the corporate component during the year ended December 31, 2020. In addition, there was an increase of $6 million for cash severance costs expected to be paid as part of global headcount and cost reduction actions across all segments and regions, including plant closures, which was more than offset by a decrease of $6 million in impairments related to assets held for sale and a decrease in other asset impairments of $1 million for the year ended December 31, 2020 as compared to the year ended December 31, 2019.

Goodwill and intangible impairment charges
Goodwill and intangible impairment charges increased by $142 million to $383 million as compared to $241 million for the year ended December 31, 2019. The increase is primarily attributable to $267 million of non-cash goodwill impairment charges, $65 million of non-cash definite-lived intangible asset impairments, and $51 million of non-cash indefinite-lived intangible asset impairments during the year ended December 31, 2020, which was the result of the effects of COVID-19 on the projected financial information during the first quarter of 2020. This compared to $108 million of goodwill impairment charges recognized for three of our reporting units for the year ended December 31, 2019. These non-cash goodwill impairment charges included $69 million in the Performance Solutions segment as a result of our reporting unit reorganization and a $21 million impairment charge in the Motorparts segment, and an $18 million impairment charge in the Powertrain segment as a result of our goodwill impairment assessment in the fourth quarter of 2019. In addition, as a result of our indefinite-lived intangible asset impairment assessment in the fourth quarter of 2019, non-cash intangible asset impairment charges of $133 million were recorded for two reporting units in the Motorparts segment.

Non-service pension and postretirement benefit (costs) credits
Non-service pension and postretirement benefit (costs) credits increased by $29 million to a net credit of $18 million as compared to a net cost of $11 million for the year ended December 31, 2019. This was primarily attributable to the elimination of certain health care benefits in retirement for participants in one of our union agreements that resulted in a non-cash curtailment gain of $21 million for the year ended December 31, 2020 as compared to a curtailment gain of $7 million for the year ended December 31, 2019 resulting from the plan amendments approved during 2019 to eliminate postretirement benefits for certain nonunion employees. The remaining change was primarily attributable to a decrease in the discount rate, which was partially offset by a higher amortization and a lower expected return on plan assets due to a lower long-term rate of return.

Equity in earnings (losses) of nonconsolidated affiliates, net of tax
Equity in earnings (losses) of nonconsolidated affiliates, net of tax increased by $4 million to $47 million as compared to $43 million in the year ended December 31, 2019. In the year ended December 31, 2019, a non-cash reduction of $12 million was recognized as a result of finalizing purchase accounting for the Federal-Mogul LLC acquisition, and completing the purchase price allocation for certain equity method investments, which represents amounts to recognize the basis difference between the fair value and book value of certain assets, including inventory, property, plant and equipment, and intangible assets. After the purchase accounting adjustments in the prior year, equity earnings (losses) decreased year over year primarily due to the effects of COVID-19 on the equity in earnings (losses) of our nonconsolidated affiliates located in Turkey, China, Korea, and the U.S. for the year ended December 31, 2020 as compared to the year ended December 31, 2019.

Gain (loss) on extinguishment of debt
A non-cash gain on extinguishment of debt of $2 million was recognized for the year ended December 31, 2020 related to the redemption of the 4.875% euro denominated senior secured notes during the fourth quarter of 2020.

Other income (expense), net
Other income (expense), net decreased by $15 million as compared to the year ended December 31, 2019. The decrease was primarily attributable to a recovery of value-added tax in a foreign jurisdiction for the year ended December 31, 2019.

Interest expense
Interest expense decreased by $45 million to $277 million (substantially all in our U.S. operations), net of interest capitalized of $3 million, for the year ended December 31, 2020 as compared to $322 million (substantially all in our U.S. operations), net of interest capitalized of $5 million, for the year ended December 31, 2019. The $45 million decrease was primarily due to lower interest rates on our variable rate debt, partially offset by higher interest expense on higher average outstanding borrowings on the revolver during the year ended December 31, 2020 as compared to the year ended December 31, 2019. Interest expense also included losses on sales of accounts receivables, which was $20 million in the year ended December 31, 2020 compared to $31 million in the year ended December 31, 2019. For more detailed explanations on our debt structure and senior credit facility refer to "Liquidity and Capital Resources" later in this Management's Discussion and Analysis.

Income tax (expense) benefit
Income tax expense increased by $440 million to $459 million on loss before income taxes and noncontrolling interests of $1,001 million for the year ended December 31, 2020 compared to income tax expense of $19 million on loss before income taxes and noncontrolling interests of $201 million for the year ended December 31, 2019. The increase is primarily the result of the $507 million in non-cash charges to tax expense relating to the full valuation allowances established for the U.S. deferred taxes for the year ended December 31, 2020 and $98 million in non-cash charges to tax expense for changes in valuation allowance for deferred taxes relating to non-U.S. jurisdictions. This is partially offset by the federal and state tax benefits and foreign rate differential on the change of the loss before income taxes and noncontrolling interests of $186 million for the year ended December 31, 2020.

Net income (loss)
Net loss increased by $1,240 million to $1,460 million for the year ended December 31, 2020 as compared to $220 million for the year ended December 31, 2019 as a result of the aforementioned items.

EBITDA including noncontrolling interests
The following table presents the reconciliation from EBITDA including noncontrolling interests to net income (loss) (amounts in millions):

	Year Ended December 31	
	2020	2019
EBITDA including noncontrolling interests:		
Motorparts	$ 155	$ 184
Performance Solutions	(634)	114
Clean Air	440	582
Powertrain	169	257
Corporate	(215)	(343)
Depreciation and amortization	(639)	(673)
Earnings (loss) before interest expense, income taxes, and noncontrolling interests	(724)	121
Interest expense	(277)	(322)
Income tax (expense) benefit	(459)	(19)
Net income (loss)	$ (1,460)	$ (220)

See "Segment Results of Operations" for further information on EBITDA including noncontrolling interests.

Segment Results of Operations

The table below reflects the main drivers for changes in our segment revenues for the years ended December 31, 2020 and 2019 (amounts in millions) (refer to the "Overview of Net Sales and Operating Revenues" for the year ended December 31, 2021 compared to December 31, 2020 discussion above for a description of why we present these reconciliations of revenue):

	Segment Revenue						
			Clean Air				
	Motorparts	Performance Solutions	Value-add Revenues	Substrate Sales	Total	Powertrain	Total
Year Ended December 31, 2019	$ 3,167	$ 3,100	$ 4,094	$ 3,027	$ 7,121	$ 4,062	$ 17,450
Acquisitions and divestitures, net	(76)	(23)	—	—	—	(7)	(106)
Drivers in the change of organic revenues:							
Volume and mix	(356)	(549)	(662)	337	(325)	(580)	(1,810)
Currency exchange rates	(55)	(6)	(4)	(9)	(13)	(15)	(89)
Others	45	(20)	(62)	—	(62)	(29)	(66)
Year Ended December 31, 2020	$ 2,725	$ 2,502	$ 3,366	$ 3,355	$ 6,721	$ 3,431	$ 15,379

Segment Revenue

Motorparts

Motorparts revenue decreased $442 million, or 14%, as compared to the year ended December 31, 2019. Lower sales across all regions in which we operate contributed $356 million to the decrease, as well as a decrease in revenues from divestitures of $76 million, and foreign currency exchange had a $55 million unfavorable effect on Motorparts revenues. The unfavorable effects were partially offset by other net favorable effects of $45 million.

Performance Solutions

Performance Solutions revenue decreased $598 million, or 19%, as compared to the year ended December 31, 2019. Lower light vehicle, commercial truck, off-highway, and other vehicle revenues contributed $549 million to the decrease, as well as a decrease in revenues from divestitures of $23 million. Foreign currency exchange had a $6 million unfavorable effect on Performance Solutions revenue, while other unfavorable effects decreased revenue by $20 million.

Clean Air

Clean Air revenue decreased $400 million, or 6%, as compared to the year ended December 31, 2019. The decrease was primarily due to the decrease in value-add revenue of $728 million, partially offset by the increase in substrate sales of $328 million. Overall for the Clean Air segment, lower light vehicle and off-highway and other revenues were the main drivers of the value-add revenue decline while commercial truck improved when compared to the prior year. In addition, foreign currency exchange had a $4 million unfavorable effect on Clean Air value-add revenue while other unfavorable effects decreased value-add revenue by $62 million.

Powertrain

Powertrain revenue decreased $631 million, or 16%, as compared to the year ended December 31, 2019. Lower light vehicle, commercial truck, industrial, and off-highway and other vehicle revenue contributed $580 million to the decrease, as well as a decrease in revenues from divestitures of $7 million. Foreign currency exchange had a $15 million unfavorable effect on Powertrain revenue, while other unfavorable effects decreased revenue by $29 million.

EBITDA including noncontrolling interests

The following table presents the EBITDA including noncontrolling interests by segment (amounts in millions):

	Year Ended December 31		2020 vs 2019 Change
	2020	2019	
EBITDA including noncontrolling interests by Segment:			
Motorparts	$ 155	$ 184	$ (29)
Performance Solutions	$ (634)	$ 114	$ (748)
Clean Air	$ 440	$ 582	$ (142)
Powertrain	$ 169	$ 257	$ (88)

Motorparts
Motorparts EBITDA including noncontrolling interests decreased $29 million as compared to the year ended December 31, 2019. The decrease is primarily attributable to lower sales volumes and unfavorable mix, an increase in goodwill impairment charge of $49 million and a non-cash charge to cost of sales of $82 million related to the write-down of inventory recognized in connection with its initiative to rationalize its supply chain and distribution network as compared to the year ended December 31, 2019. These unfavorable factors were partially offset by favorable operating performance, lower SG&A costs and a decrease in indefinite-lived intangible asset impairment charges of $93 million as compared to the year ended December 31, 2019.

Performance Solutions
Performance Solutions EBITDA including noncontrolling interests decreased $748 million as compared to the year ended December 31, 2019. The decrease is primarily attributable to asset impairment charges of $455 million and goodwill and intangible impairment charges of $232 million recognized during the year ended December 31, 2020 as compared to a goodwill impairment charge of $69 million recognized during the year ended December 31, 2019. Also contributing to the decrease is lower sales volume and unfavorable mix, partially offset by lower SG&A and engineering, research, and development costs.

Clean Air
Clean Air EBITDA including noncontrolling interests decreased $142 million as compared to the year ended December 31, 2019. The decrease is primarily attributable to lower sales volume and unfavorable mix, partially offset by favorable operating performance and lower SG&A costs during the year ended December 31, 2020 as compared to the year ended December 31, 2019.

Powertrain
Powertrain EBITDA including noncontrolling interests decreased $88 million as compared to the year ended December 31, 2019. The decrease is primarily attributable to lower sales volume and unfavorable mix, an increase in cash severance charges expected to be paid of $19 million, and an increase in goodwill impairment charge of $23 million during the year ended December 31, 2020 as compared to the year ended December 31, 2019. These unfavorable factors were partially offset by favorable operating performance and lower SG&A and engineering, research, and development costs. Included in the lower SG&A costs is a reduction of $9 million for a non-income tax refund received in the year ended December 31, 2020.

The EBITDA including noncontrolling interests results shown in the preceding table include the following items, certain of which may have an effect on the comparability of EBITDA including noncontrolling interests results between periods (amounts in millions):

	Reportable Segments						
Year Ended December 31, 2020	Motorparts	Performance Solutions	Clean Air	Powertrain	Total	Corporate	Total
Restructuring charges, net	$ 17	$ 25	$ 22	$ 50	$ 114	$ 5	$ 119
Restructuring related costs	3	43	—	1	47	3	50
Asset impairments restructuring related	26	—	—	3	29	—	29
Other non-restructuring asset impairments	1	455	—	1	457	17	474
Inventory write-down(1)	73	—	—	—	73	—	73
Other costs (including strategic and transaction related)(2)	—	(2)	—	—	(2)	40	38
OPEB curtailment(3)	—	—	—	—	—	(21)	(21)
Antitrust reserve change in estimate	—	—	(11)	—	(11)	—	(11)
Gain on extinguishment of debt	—	—	—	—	—	(2)	(2)
(Gain)/Loss on sale of assets	—	(3)	—	—	(3)	1	(2)
Goodwill and intangibles impairment charges	110	232	—	41	383	—	383
Total adjustments	$ 230	$ 750	$ 11	$ 96	$ 1,087	$ 43	$ 1,130

(1) Non-cash charge of $82 million to write-down inventory in the Motorparts segment in connection with its initiative to rationalize its supply chain and distribution network, partially offset by $9 million margin on discontinued product that was previously written-down.
(2) Includes costs related to the acquisitions and expected separation.
(3) OPEB curtailment as a result of an amended union agreement that eliminated healthcare benefits for future retirees.

	Reportable Segments						
	Motorparts	Performance Solutions	Clean Air	Powertrain	Total	Corporate	Total
Year Ended December 31, 2019							
Restructuring charges, net:							
Restructuring related to synergy initiatives (1)	$ 11	$ 2	$ 6	$ 1	$ 20	$ 2	$ 22
Other restructuring charges and costs	3	26	23	30	82	9	91
Total restructuring charges, net	14	28	29	31	102	11	113
Restructuring related costs	—	42	—	—	42	—	42
Asset impairments related to restructuring	—	3	—	—	3	—	3
Other non-restructuring asset impairments	9	—	1	—	10	—	10
Other costs to achieve synergies (1)	—	—	—	1	1	6	7
Cost reduction initiatives (2)	—	—	—	—	—	15	15
Acquisition and expected separation costs (3)	1	—	—	—	1	126	127
Purchase accounting adjustments (4)	41	4	—	12	57	—	57
Brazil tax credit(5)	(7)	(6)	(9)	—	(22)	—	(22)
Antitrust reserve change in estimate	—	—	(9)	—	(9)	—	(9)
Out of period adjustment (6)	—	5	—	—	5	—	5
Process harmonization (7)	9	4	13	—	26	—	26
Warranty charge (8)	8	—	—	—	8	—	8
Pension settlement (9)	—	—	—	—	—	(2)	(2)
Goodwill and intangibles impairment charges	154	69	—	18	241	—	241
Total adjustments	$ 229	$ 149	$ 25	$ 62	$ 465	$ 156	$ 621

(1) Cost to achieve synergies related to acquisitions.
(2) Costs related to cost reduction initiatives.
(3) Costs related to acquisitions and costs related to expected separation.
(4) This primarily relates to a non-cash charge to cost of goods sold for the amortization of the inventory fair value step-up recorded as part of the acquisitions.
(5) Recovery of value-added tax in a foreign jurisdiction.
(6) Inventory losses attributable to prior periods.
(7) Charge due to process harmonization.
(8) Charge related to warranty. Although we regularly incur warranty costs, this specific charge is of an unusual nature in the period incurred.
(9) Charges related to settlements of our pension benefit plans in connection with our derisking activities.

LIQUIDITY AND CAPITAL RESOURCES

This section discusses our liquidity and capital resources, including cash flow activities for the year ended December 31, 2021 compared to December 31, 2020. Discussion of our cash flow activities for the year ended December 31, 2020 compared to December 31, 2019 can be found under Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2020, which was filed with the Securities and Exchange Commission on February 24, 2021.

Liquidity and Financing Arrangements

For the reasons discussed above under "Recent Trends and Market Conditions - General economic conditions", there continues to be many uncertainties that remain related to COVID-19 and the ongoing semiconductor shortage, other supply chain challenges, and the effects of inflation on commodities, other purchases, and labor costs that could negatively affect our liquidity and cash flows.

We believe cash flows from operations, combined with our cash on hand and committed and undrawn capacity under our $1.5 billion revolving credit facility, will be sufficient to meet our future capital requirements, including debt amortization, capital expenditures, pension contributions, and other operational requirements, for the following year based on our current estimates and forecasts. We believe we will maintain compliance with our financial ratios set forth in our amended credit agreement. However, our ability to meet the financial covenants depends upon a number of operational and economic factors, many of which are beyond our control. In the event we are unable to meet these financial covenants, we would consider several options to meet our cash flow needs. Such actions include additional restructuring initiatives and other cost reductions, sales of assets, reductions to working capital and capital spending, issuance of equity, and other alternatives to enhance our financial and operating position. We also continue to actively monitor credit market conditions for the right opportunity to replace and extend maturity.

Credit Facilities

The table below shows our borrowing capacity on committed credit facilities at December 31, 2021 (amounts in billions):

	December 31, 2021	
	Term	Available[b]
Tenneco Inc. revolving credit facility [a]	2023	$ 1.4
Tenneco Inc. Term Loan A	2023	—
Tenneco Inc. Term Loan B	2025	—
Subsidiaries' credit agreements	2022-2028	—
		$ 1.4

[a] We are required to pay commitment fees under the revolving credit facility on the unused portion of the total commitment.

[b] At December 31, 2021, the Company had $69 million of outstanding letters of credit under the revolving credit facility, which reduces the available borrowings under revolving credit facility. We also had $76 million of outstanding letters of credit under our uncommitted facilities at December 31, 2021.

At December 31, 2021, we had liquidity of $2.3 billion comprised of $865 million of cash and $1.4 billion undrawn on our revolving credit facility. We had no outstanding borrowings on our revolving credit facility at December 31, 2021.

During the fourth quarter of 2021, we issued a $42 million letter of credit under our revolving credit facility that is included in the $69 million of total outstanding letters of credit at December 31, 2021, which reduces the available borrowings under our revolving credit facility. The letter of credit supports a 1.7 billion Mexican peso (approximately $82 million using the exchange rate at December 31, 2021) surety bond issued to the Mexican tax authority. The surety bond is required in order for us to enter into the judicial process to appeal a tax assessment and covers the amount of the assessment plus interest. We do not believe it is probable we will have to pay the assessment or related interest. We also received a second assessment during the fourth quarter of 2021 from the Mexican tax authority of 0.6 billion Mexican peso (approximately $28 million using the exchange rate at December 31, 2021) for a separate matter, which has not required the issuance of a surety bond at this time. We do not believe it is probable we will have to pay this second assessment or related interest.

Term Loans

We entered into a new credit agreement with JPMorgan Chase Bank, N.A., as administrative agent and other lenders (the "New Credit Facility") in October 2018, which has been amended by the first amendment, dated February 14, 2020 (the "First Amendment"), by the second amendment, dated February 14, 2020 (the "Second Amendment"), and by the third amendment, dated May 5, 2020 (the "Third Amendment"). The New Credit Facility consists of $4.9 billion of total debt financing, consisting of a five-year $1.5 billion revolving credit facility, a five-year $1.7 billion term loan A facility ("Term Loan A") and a seven-year $1.7 billion term loan B facility ("Term Loan B"). During the year ended December 31, 2020, we paid $18 million in one-time fees in connection with these amendments.

New Credit Facility — Interest Rates

At December 31, 2021, the interest rate on borrowings under the revolving credit facility and the Term Loan A facility was LIBOR plus 1.75% and will remain at LIBOR plus 1.75% for each relevant period for which our consolidated net leverage ratio (as defined in the New Credit Facility) is less than 3.0 to 1 and greater than 2.5 to 1. The interest rate on borrowings under the revolving credit facility and the Term Loan A facility are subject to step downs in accordance with the credit agreement.

The New Credit Facility prescribes for an alternative method of determining interest rates in the event LIBOR is not available.

New Credit Facility — Other Terms and Conditions

The financial ratios required under the New Credit Facility and the actual ratios we calculated at December 31, 2021 are as follows: senior secured net leverage ratio of 2.59 actual versus 4.00 (maximum required under the Third Amendment); and interest coverage ratio of 5.79 actual versus 2.75 (minimum required under the Third Amendment).

Further information on interest rates, fees, and other terms and conditions of the New Credit Facility, refer to Note 9, "Debt and Other Financing Arrangements" included in Part II, Item 8, "Financial Statements and Supplementary Data" for additional details.

Senior Notes

A summary of our senior unsecured and secured notes at December 31, 2021 are as follows (amounts in millions):

	2021		
	Principal	Carrying Amount[a]	Effective Interest Rate
Senior Unsecured Notes			
$225 million of 5.375% Senior Notes due 2024	$ 225	$ 223	5.560 %
$500 million of 5.000% Senior Notes due 2026	$ 500	$ 496	5.171 %
Senior Secured Notes			
$500 million of 7.875% Senior Secured Notes due 2029	$ 500	$ 490	8.049 %
$800 million of 5.125% Senior Secured Notes due 2029	$ 800	$ 787	5.306 %

[a] Carrying amount is net of unamortized debt issuance costs of $29 million at December 31, 2021.

At December 31, 2021, we had outstanding 5.375% senior unsecured notes due December 15, 2024 ("2024 Senior Notes") and 5.000% senior unsecured notes due July 15, 2026 ("2026 Senior Notes" and together with the 2024 Senior Notes, the "Senior Unsecured Notes"). We also had outstanding 7.875% senior secured notes due January 15, 2029 ("7.875% Senior Secured Notes") which were issued on November 30, 2020, and 5.125% senior secured notes due April 15, 2029 ("5.125% Senior Secured Notes") which were issued on March 17, 2021. The 7.875% Senior Secured Notes and 5.125% Senior Secured Notes (collectively, the "Senior Secured Notes") were outstanding at December 31, 2021.

On March 3, 2021, we provided notice of our intention to redeem all of the outstanding 5.000% euro denominated senior secured notes due July 15, 2024 (the "2024 Fixed Rate Secured Notes") and all of the outstanding floating rate euro denominated senior secured notes due April 15, 2024 (the "2024 Floating Rate Secured Notes" and, together with the 2024 Fixed Rate Secured Notes, the "2024 Secured Notes"). On March 17, 2021, we, using the net proceeds of the offering of 5.125% Senior Secured Notes, together with cash on hand, satisfy and discharge each of the indentures governing the 2024 Secured Notes in accordance with their terms. As a result, we recorded a gain on extinguishment of debt of $8 million for the year ended December 31, 2021.

Senior Unsecured Notes and Senior Secured Notes — Other Terms and Conditions
The Senior Unsecured Notes and Senior Secured Notes contain covenants that, among other things, limit our and our subsidiaries' ability to create liens on our assets and enter into sale and leaseback transactions. In addition, the indentures governing the Senior Secured Notes and 2024 Senior Notes also contain covenants that limit our and our subsidiaries' ability to: (i) incur additional indebtedness; (ii) pay dividends, make distributions to stockholders and repurchase stock; (iii) make investments; (iv) sell assets; (v) enter into transactions with affiliates; and (vi) undertake mergers and consolidations.

Subject to limited exceptions, all of our existing and future material domestic wholly owned subsidiaries fully and unconditionally guarantee our Senior Unsecured Notes and Senior Secured Notes on a joint and several basis. There are no significant restrictions on the ability of the subsidiaries that have guaranteed our Senior Unsecured Notes and Senior Secured Notes to make distributions to us.

Further information on interest rates, fees, and other terms and conditions of the Senior Unsecured and Senior Secured Notes, refer to Note 9, "Debt and Other Financing Arrangements" included in Part II, Item 8, "Financial Statements and Supplementary Data" for additional details.

Factoring Arrangements
In our accounts receivable factoring programs, accounts receivables are transferred in their entirety to the acquiring entities and are accounted for as a sale. The fair value of assets received as proceeds in exchange for the transfer of accounts receivable under these factoring programs approximates the fair value of such receivables. Some of these programs have deferred purchase price arrangements with the banks.

We are the servicer of the receivables under some of these arrangements and are responsible for performing all accounts receivable administration functions. Where we receive a fee to service and monitor these transferred accounts receivables, such fees are sufficient to offset the costs and as such, a servicing asset or liability is not recorded as a result of such activities.

At December 31, 2021 and 2020, the amount of accounts receivable outstanding and derecognized for factoring arrangements was $1.0 billion and $1.0 billion, of which $0.5 billion and $0.4 billion relate to accounts receivable where we have continuing involvement. In addition, the deferred purchase price receivable was $51 million and $51 million at December 31, 2021 and 2020.

For the years ended December 31, 2021 and 2020, proceeds from the factoring of accounts receivable qualifying as sales were $5.2 billion and $4.1 billion, of which $3.9 billion and $3.3 billion were received on accounts receivable where we have continuing involvement.

For the years ended December 31, 2021 and 2020, our financing charges associated with the factoring of receivables, which are included in "Interest expense" in the consolidated statements of income (loss), were $19 million and $20 million.

If we were not able to factor receivables under these programs, our borrowings under our revolving credit agreement might increase. These programs provide us with access to cash at costs that are generally favorable to alternative sources of financing and allow us to reduce borrowings under our revolving credit agreement.

Cash Flows

Operating Activities

Operating activities were as follows (amounts in millions):

	Year Ended December 31	
	2021	2020
Operational cash flow before changes in operating assets and liabilities	$ 695	$ 245
Changes in operating assets and liabilities:		
Receivables	(408)	(182)
Inventories	(162)	279
Payables and accrued expenses	232	308
Accrued interest and accrued income taxes	27	(12)
Other assets and liabilities	(151)	(9)
Total change in operating assets and liabilities	(462)	384
Net cash (used) provided by operating activities	$ 233	$ 629

Net cash provided by operating activities for the year ended December 31, 2021 was $233 million, a decrease of $396 million compared to the year ended December 31, 2020. The decrease is attributable to an unfavorable change in operating cash flow of $846 million due to unfavorable changes in working capital items, partially offset by an improvement in net cash provided by operating activities before changes in operating assets and liabilities of $450 million. We utilize factoring agreements with deferred purchase price, which are reflected as investing activities and not operating activities. Had we not entered into such agreements, these proceeds would have been reported as cash from operations.

Investing Activities

Investing activities were as follows (amounts in millions):

	Year Ended December 31	
	2021	2020
Proceeds from sale of assets	$ 55	$ 29
Collection of divestiture receivable	27	16
Net proceeds from sale of business	1	9
Proceeds from sale of investment in nonconsolidated affiliates	8	—
Cash payments for property, plant and equipment	(387)	(394)
Proceeds from deferred purchase price of factored receivables	472	283
Net cash (used) provided by investing activities	$ 176	$ (57)

Cash payments for property, plant and equipment were $387 million and $394 million for the years ended December 31, 2021 and 2020.

Proceeds from deferred purchase price of factored receivables were $472 million and $283 million for the years ended December 31, 2021 and 2020.

Collection of divestiture receivable were $27 million and $16 million for the years ended December 31, 2021 and 2020.

Financing Activities
Financing activities were as follows (amounts in millions):

	Year Ended December 31	
	2021	2020
Proceeds from term loans and notes	$ 839	$ 654
Repayments and extinguishment costs of term loans and notes	(1,073)	(765)
Borrowings on revolving lines of credit	6,504	6,120
Payments on revolving lines of credit	(6,525)	(6,337)
Debt issuance costs of long-term debt	(16)	(25)
Net decrease in bank overdrafts	—	(2)
Distributions to noncontrolling interests	(40)	(42)
Other	(18)	39
Net cash (used) provided by financing activities	$ (329)	$ (358)

Net cash used by financing activities was $329 million for the year ended December 31, 2021. This included net repayments and extinguishment costs of term loans and notes of $234 million and net repayments under revolving lines of credit of $21 million.

Net cash used by financing activities was $358 million for the year ended December 31, 2020. This included net repayments and extinguishment costs of term loans and notes of $111 million and net repayments under revolving lines of credit of $217 million.

Dividends on Common Stock
We did not pay dividends for the years ended December 31, 2021 and 2020, due to the suspension of the dividend program in 2019.

Material Cash Requirements
Our material cash requirements include the following contractual and other obligations:

	Payments due by period:	
	Next 12 months	Beyond 12 months
Revolver borrowings	$ —	$ —
Senior term loans	187	2,865
Senior notes	—	2,025
Other subsidiary debt and finance lease obligations	6	20
Short-term debt	51	—
Total debt obligations	244	4,910
Pension obligations	68	722
Operating leases	100	262
Purchase obligations (a)	117	35
Interest payments	199	765
Capital commitments	51	8
Total payments	$ 779	$ 6,702

(a) Short-term, ordinary course payment obligations have been excluded.

If we do not maintain compliance with the terms of our New Credit Facility or senior notes indentures described above, all amounts under those arrangements could, automatically or at the option of the lenders or other debt holders, become due. Additionally, each of those facilities contains provisions that certain events of default under one facility will constitute a default under the other facility, allowing the acceleration of all amounts due. We currently expect to maintain compliance with the terms of all of our various credit agreements for the foreseeable future.

Included in our contractual obligations is the amount of interest to be paid on our long-term debt. As our debt structure contains both fixed and variable rate obligations, we have made assumptions in calculating the amount of future interest payments. Interest on our Senior Unsecured Notes is calculated using the fixed rates of 5.375% and 5.000%, and interest on our fixed rate Senior Secured Notes is calculated using the fixed rates of 7.875% and 5.125%. Interest on our variable rate debt is calculated as LIBOR plus the applicable margin in effect at December 31, 2021 for our term loans. We have assumed that rates will remain unchanged for the outlying years.

We have also included an estimate of expenditures required after December 31, 2021 to complete the projects authorized at December 31, 2021, in which we have made substantial commitments in connection with purchasing property, plant and equipment for our operations. For 2022, we expect our capital expenditures to be between $400 million and $450 million.

We have included an estimate of the expenditures necessary after December 31, 2021 to satisfy purchase requirements pursuant to certain ordinary course supply agreements that we have entered into. With respect to our other supply agreements, they generally do not specify the volumes we are required to purchase. In many cases, if any commitment is provided, the agreements state only the minimum percentage of our purchase requirements we must buy from the supplier. As a result, these purchase obligations fluctuate from year-to-year and we are not able to quantify the amount of our future obligations.

We have not included the potential cash requirement to redeem the shares of one of our noncontrolling interest holders. This became redeemable on January 10, 2022 upon the third anniversary of the Öhlins acquisition. The redemption value of this noncontrolling interest was $41 million at December 31, 2021.

We have not included material cash requirements for unrecognized tax benefits or taxes. It is difficult to estimate taxes to be paid as changes in where we generate income can have a significant effect on our future tax payments.

Based upon current estimates, we believe we will be required to make contributions of approximately $68 million to our pension and postretirement benefits plans in 2022. Pension and postretirement contributions beyond 2022 will be required but those amounts will vary based upon many factors, including the performance of our pension fund investments during 2022 and future discount rate changes. For additional information relating to the funding of our pension and other postretirement plans, refer to Note 11, "Pension Plans, Postretirement and Other Employee Benefits", in our consolidated financial statements included in Item 8 for additional information.

In addition, we have not included cash requirements for environmental remediation. Based upon current estimates, we believe we will be required to spend approximately $31 million over the next 30 years, including $8 million of expected payments in 2022. However, due to possible modifications in remediation processes and other factors, it is difficult to determine the actual timing and extent of cash payments. Refer to Note 13, "Commitments and Contingencies", in our consolidated financial statements included in Item 8 for additional information.

We occasionally provide guarantees that could require us to make future payments in the event that the third-party primary obligor does not make its required payments. We are not required to record a liability for any of these guarantees.

Additionally, we have from time to time issued guarantees for the performance of obligations by some of our subsidiaries, and some of our subsidiaries have guaranteed our debt. Substantially all of our existing and future material domestic subsidiaries fully and unconditionally guarantee our New Credit Facility and our senior notes on a joint and several basis. The New Credit Facility is also secured by first-priority liens on substantially all our domestic assets and pledges of up to 66% of the stock of certain first-tier foreign subsidiaries. As described above, certain of our senior notes are secured by pledges of stock and assets.

Supplemental Guarantor Financial Information

Basis of Presentation

Substantially all of the Company's existing and future material domestic 100% owned subsidiaries (which are referred to as the "Guarantor Subsidiaries") fully and unconditionally guarantee its senior notes on a joint and several basis. However, a subsidiary's guarantee may be released in certain customary circumstances such as a sale of the subsidiary or all or substantially all of its assets in accordance with the indenture applicable to the notes. The Guarantor Subsidiaries are combined in the presentation below.

Summarized Financial Information

The following tables present summarized financial information for the Parent and the Guarantors on a combined basis after the elimination of (a) intercompany transactions and balances among the Parent and the Guarantors and (b) the equity in earnings from and investments in any subsidiary that is a Nonguarantor (amounts in millions):

Income Statements

	Year Ended December 31	
	2021	2020
Net sales and operating revenues	$ 7,108	$ 6,181
Operating expenses	$ 7,234	$ 6,896
Net income (loss)	$ (585)	$ (1,221)
Net income (loss) attributable to Tenneco Inc.	$ (585)	$ (1,221)

Balance Sheets

	December 31	
	2021	2020
ASSETS		
Current assets	$ 480	$ 1,150
Non-current assets	$ 1,853	$ 2,022
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities	$ 1,432	$ 1,463
Non-current liabilities	$ 5,441	$ 5,834
Intercompany due to (due from)	$ 624	$ 100

CRITICAL ACCOUNTING ESTIMATES

We prepare our consolidated financial statements in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"), which requires us to make estimates and assumptions that affect the reported amounts and disclosures in our consolidated financial statements. These estimates are subject to an inherent degree of uncertainty and actual results could differ from our estimates. Our significant accounting policies have been disclosed in Note 2, "Summary of Significant Accounting Policies" in our consolidated financial statements included in Item 8. The following paragraphs include a discussion of certain policies as well as critical areas where estimates are required.

Goodwill and Other Indefinite-Lived Intangible Assets

We evaluate goodwill for impairment during the fourth quarter of each year, or more frequently if events or circumstances indicate goodwill might be impaired. We perform assessments at the reporting unit level by comparing the estimated fair value of our reporting units with goodwill to the carrying value of the reporting unit to determine if a goodwill impairment exists. If the carrying value of our reporting units exceeds the fair value, the goodwill is considered impaired. Our assessment of fair value utilizes a combination of the income approach, market approach, and, in instances where a reporting unit's free cash flows do not support the value of the underlying assets, an asset approach. In our assessment, for reporting units where the free cash flows support the value of the underlying assets, we apply a 75% weighting to the income approach and a 25% weighting to the market approach. The most significant inputs in estimating the fair value of our reporting units under the income approach are (i) projected operating margins, (ii) the revenue growth rate, and (iii) the discount rate, which is risk-adjusted based on the aforementioned inputs.

Similar to goodwill, we evaluate our indefinite-lived trade names and trademarks for impairment during the fourth quarter of each year, or more frequently if events or circumstances indicated the assets might be impaired. We perform a quantitative assessment of estimating fair values based upon the prospective stream of hypothetical after-tax royalty cost savings discounted at rates that reflect the rates of return appropriate for these intangible assets. The primary inputs utilized in determining fair values of our trade names and trademarks are (i) our projected branded product sales, (ii) the revenue growth rate, (iii) the royalty rate, and (iv) the discount rate, which is risk-adjusted based on our projected branded sales.

The basis of the goodwill impairment and indefinite-lived intangible asset impairment analyses is our annual budget and three-year strategic plan. This includes a projection of future cash flows based on new products, awarded business, customer commitments, and independent market data, which requires us to make significant assumptions and estimates about the extent and timing of future cash flows and revenue growth rates. The key factors that affect our estimates are (i) future production estimates; (ii) customer preferences and decisions; (iii) product pricing; (iv) manufacturing and material cost estimates; and (v) product life / business retention. These estimates and assumptions are subject to a high degree of uncertainty.

While we believe the assumptions and estimates used to determine the estimated fair values are reasonable, due to the many variables inherent in estimating fair value and the relative size of the goodwill and indefinite-lived intangible assets, differences in assumptions could have a material effect on the results of our analysis. Refer to Note 6, "Goodwill and Other Intangible Assets", in our consolidated financial statements included in Item 8 for additional information regarding our goodwill and indefinite-lived intangible assets.

The following table shows a summary of the number of reporting units with a net carrying value of goodwill in each segment at December 31, 2021 and whether or not the reporting unit's fair value exceeds its carrying value by more or less than 25% based on each respective reporting units most recent goodwill impairment analysis:

	Segments		
	Motorparts	Performance Solutions	Clean Air
Number of reporting units with goodwill	1	2	3
Number of reporting units where fair value exceeds carrying value:			
Greater than 25%	1	2	2
Less than 25%	—	—	1
Goodwill for reporting units where fair value exceeds carrying value:			
Greater than 25%	$ 313	$ 172	$ 11
Less than 25%	—	—	11
	$ 313	$ 172	$ 22

Impairment of Long-Lived Assets and Definite-Lived Intangible Assets

We monitor our long-lived and definite-lived intangible assets for impairment indicators on an on-going basis. If an impairment indicator exists, we test the long-lived asset group for recoverability by comparing the undiscounted cash flows expected to be generated from the long-lived asset group to its net carrying value. If the net carrying value of the asset group exceeds the undiscounted cash flows, the asset group is written down to its fair value and an impairment loss is recognized. Even if an impairment charge is not recognized, a reassessment of the useful lives over which depreciation or amortization is being recognized may be appropriate based on our assessment of the recoverability of these assets.

The basis of the recoverability test is our annual budget and three-year strategic plan. This includes a projection of future cash flows based on new products, awarded business, customer commitments, and independent market data, which requires us to make significant assumptions and estimates about the extent and timing of future cash flows and revenue growth rates. The key factors that affect our estimates are (i) future production estimates; (ii) customer preferences and decisions; (iii) product pricing; (iv) manufacturing and material cost estimates; and (v) product life / business retention. These estimates and assumptions are subject to a high degree of uncertainty.

While we believe the projections of anticipated future cash flows and related assumptions are reasonable, differences in assumptions could have a material effect on the results of our analysis.

Pension and Other Postretirement Benefits

We sponsor defined benefit pension and postretirement benefit plans for certain employees and retirees around the world. Our defined benefit plans are accounted for on an actuarial basis, which requires the selection of various assumptions, including an expected long-term rate of return, discount rate, mortality rates of participants, expected rates of mortality improvement, and health care cost trend rates.

The approach to establishing the discount rate assumption for both our domestic and international plans is based on high-quality corporate bonds. The weighted average discount rates used to calculate net periodic benefit cost for 2021 and year-end obligations at December 31, 2021 were as follows:

	Pension Benefits		Other Postretirement
	U.S. Plans	Non-U.S. Plans	Benefits
Used to calculate net periodic benefit cost	2.3 %	1.5 %	2.5 %
Used to calculate benefit obligations	2.8 %	1.9 %	2.9 %

Our approach to establishing the assumption for the expected return on assets utilizes estimates of future long-term investment performance for the plan based upon the asset allocation strategy and is primarily a long-term prospective rate. As a result, our estimate of the weighted average long-term rate of return on plan assets for all of our pension plans decreased to 4.7% in 2021 from 5.1% in 2020.

Our pension plans generally do not require employee contributions. Our policy is to fund these pension plans in accordance with applicable domestic and international government regulations. At December 31, 2021, all legal funding requirements had been met.

The following table illustrates the sensitivity to a change in certain assumptions for our pension and postretirement benefit plan obligations. The changes in these assumptions have no effect on our funding requirements.

	Pension Benefits				Other Postretirement Benefits	
	U.S. Plans		Non-U.S. Plans			
	Change in 2022 pension expense	Change in PBO	Change in 2022 pension expense	Change in PBO	Change in 2022 pension expense	Change in PBO
25 basis point ("bp") decrease in discount rate	$ —	$ 33	$ 1	$ 38	$ 1	$ 4
25 bp increase in discount rate	$ 1	$ (32)	$ (1)	$ (35)	$ —	$ (4)
25 bp decrease in return on assets rate	$ 3	n/a	$ 1	n/a	n/a	n/a
25 bp increase in return on assets rate	$ (3)	n/a	$ (1)	n/a	n/a	n/a

The assumed health care trend rate affects the amounts reported for our postretirement benefit plan obligations. The following table illustrates the sensitivity to a change in the assumed health care trend rate:

	Total service and interest cost	APBO
100 bp increase in health care cost trend rate	$ —	$ 7
100 bp decrease in health care cost trend rate	$ —	$ (6)

Refer to Note 11, "Pension Plans, Postretirement and Other Employee Benefits", in our consolidated financial statements included in Item 8 for additional information regarding our pension and other postretirement employee benefit costs and assumptions.

Warranty Reserves

We provide warranties on some, but not all, of our products. The warranty terms vary but range from one year up to limited lifetime warranties on some of our premium aftermarket products. Provisions for estimated expenses related to product warranty are made at the time products are sold or when specific warranty issues are identified on OE products. These estimates are established using historical information about the nature, frequency, and average cost of warranty claims and upon specific warranty issues as they arise. While we have not experienced any material differences between these estimates and our actual costs, it is reasonably possible that future warranty issues could arise that could have a material effect on our consolidated financial statements.

Income Taxes

We recognize deferred tax assets and liabilities which reflect the temporary differences between the financial statement carrying value of assets and liabilities and the tax reporting values. Future tax benefits of net operating losses ("NOL") and tax credit carryforwards are also recognized as deferred tax assets on a taxing jurisdiction basis. We measure deferred tax assets and liabilities using enacted tax rates that will apply in the years in which we expect the temporary differences to be recovered or paid. Changes in tax laws or accounting standards and methods may affect recorded deferred taxes in future periods.

Valuation allowances are recorded to reduce our deferred tax assets to an amount that is more likely than not to be realized. The ability to realize deferred tax assets depends on our ability to generate sufficient taxable income within the carryforward periods provided for in the tax law for each tax jurisdiction. In the event our operating performance deteriorates in a filing jurisdiction or entity, future assessments could conclude that a larger valuation allowance will be needed to further reduce the deferred tax assets. However, due to the complexity of some of these uncertainties, the ultimate resolution may be materially different from the current estimate. Refer to Note 12, "Income Taxes", in our consolidated financial statements included in Item 8, "Financial Statements and Supplementary Data" for additional information.

In addition, the calculation of our tax benefits and liabilities includes uncertainties in the application of complex tax regulations in a multitude of jurisdictions across our global operations. We recognize tax benefits and liabilities based on our estimate of whether, and the extent to which, additional taxes will be due. We adjust these liabilities based on changing facts and circumstances; however, due to complexity of some of these uncertainties and the effect of any tax audits, the ultimate resolutions may be materially different from our estimated liabilities.

MARKET RISK SENSITIVITY

We are exposed to certain global market risks, including foreign currency exchange rate risk, commodity price risk, interest rate risk associated with our debt, and equity price risk associated with our share-based compensation awards.

Foreign Currency Exchange Rate Risk

We manufacture and sell our products globally. As a result, our financial results could be significantly affected by factors such as changes in foreign currency exchange rates or weak economic conditions in foreign markets in which we manufacture and sell our products. We generally try to use natural hedges within our foreign currency activities to minimize foreign currency risk. Where natural hedges are not in place, we consider managing certain aspects of our foreign currency activities and larger transactions through the use of foreign currency options or forward contracts.

Foreign Currency Forward Contracts

We enter into foreign currency forward purchase and sale contracts to mitigate our exposure to changes in exchange rates on certain intercompany and third-party trade receivables and payables and intercompany loans. The fair value of these derivative instruments is not considered material to the consolidated financial statements.

The following table summarizes by position the notional amounts for foreign currency forward contracts at December 31, 2021, all of which mature in the next twelve months (amounts in millions):

	Notional Amount
Long positions	$ 401
Short positions	$ 396

A hypothetical 10% adverse change in the U.S. relative to all other currencies would not materially affect our consolidated financial position, results of operations or cash flows with regard to changes in the fair values of foreign currency forward contracts.

We are exposed to foreign currency risk due to translation of the results of certain international operations into U.S. dollars as part of the consolidation process. Fluctuations in foreign currency exchange rates can therefore create volatility in the results of operations and may adversely affect our financial condition.

The following table summarizes the amounts of foreign currency translation and transaction losses (amounts in millions):

	Year Ended December 31	
	2021	2020
Translation gains (losses) recorded in accumulated other comprehensive income (loss)	$ (83)	$ (12)
Transaction gains (losses) recorded in earnings	$ (20)	$ (17)

Commodity Price Risk

Our production processes are dependent upon the supply of certain raw materials that are exposed to price fluctuations on the open market. Commodity rate price forward contracts are executed to offset a portion of our exposure to the potential change in prices for raw materials. We monitor our commodity price risk exposures regularly to maximize the overall effectiveness of our commodity forward contracts. The fair value of our commodity price forward contracts is not considered material to the consolidated financial statements.

Interest Rate Risk

Our financial instruments that are sensitive to market risk for changes in interest rates are primarily our debt securities. We use our revolving credit facility to finance our short-term and long-term capital requirements. We pay a current market rate of interest on these borrowings. Our long-term capital requirements have been financed with long-term debt with original maturity dates ranging from five to ten years. At December 31, 2021, we had $2.0 billion par value of fixed rate debt and $3.1 billion par value of floating rate debt. Of the fixed rate debt, $225 million is fixed through 2024, $500 million is fixed through 2026, and $1.3 billion is fixed through 2029. For more detailed explanations on our debt structure and New Credit Facility, refer to "Liquidity and Capital Resources — Liquidity and Financing Arrangements" earlier in this Management's Discussion and Analysis.

We estimate the fair value of our long-term debt at December 31, 2021 was approximately 101% of its book value. A one percentage point increase or decrease in interest rates related to our variable interest rate debt would increase or decrease the annual interest expense we recognize in the consolidated statements of income (loss) and the cash we pay for interest expense by approximately $32 million.

Equity Price Risk

We have certain employee compensation arrangements, including deferred compensation and cash-settled share-based units granted under our long-term incentive plan, that are valued based on the Tenneco Inc. stock price. The share equivalents outstanding related to deferred compensation and cash-settled share-based awards are as follows:

	December 31	
	2021	2020
Restricted Stock Units (RSUs)	1,451,422	1,878,220
Performance Share Units (PSUs)	2,951,316	—
	4,402,738	1,878,220
Deferred compensation arrangements (a)	—	1,125,605

(a) At December 31, 2021, there are no share equivalents outstanding that are based on the Company's stock price. On a prospective basis, the alternative for employees to invest their deferred compensation into these arrangements no longer exists.

At December 31, 2021, a change in the Tenneco Inc. share price of 10% would cause a change to the compensation liability of approximately $2 million, and would change the cash payout of all share equivalents, once fully vested at 100%, by $5 million.

We have entered into financial instruments to mitigate the risk associated with both the vested and unvested portions of our cash-settled share-based incentive compensation awards and, prior to September 30, 2021, our deferred compensation liability. The number of common share equivalents under these agreements at December 31, 2021 and 2020 was 3,100,000 and 1,700,000. These financial instruments move in the opposite direction of the compensation payouts, allowing us to mitigate the risk associated with changes in the Tenneco Inc. share price of the final cash settlement.

Effective in the third quarter of 2021, investment options based on the Company's stock price no longer exist under the incentive deferral plan and, at December 31, 2021, there are no deferred compensation balances correlated to the Company's stock price.

ENVIRONMENTAL MATTERS, LEGAL PROCEEDINGS AND PRODUCT WARRANTIES

Note 13, "Commitments and Contingencies" of the consolidated financial statements included in Item 8, "Financial Statements and Supplemental Data" is incorporated herein by reference.

ITEM 7A.QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Information required by Item 7A is included in Note 2, "Summary of Significant Accounting Policies" and Note 8, "Financial Instruments and Fair Value" of the consolidated financial statements and notes included in Item 8. Other information required by Item 7A is included in Item 7, " Management's Discussion and Analysis of Financial Condition and Results of Operations".

ITEM 8.FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

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AND CONSOLIDATED SUBSIDIARIES

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MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of Tenneco Inc. is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) and Rule 15d-15(f) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")). Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2021. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in *Internal Control-Integrated Framework* (2013).

Based on this assessment, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2021.

The effectiveness of our internal control over financial reporting as of December 31, 2021 has been audited by PricewaterhouseCoopers LLP, our independent registered public accounting firm, as stated in their report, which is included herein.

February 24, 2022

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Tenneco Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting
We have audited the accompanying consolidated balance sheets of Tenneco Inc. and its subsidiaries (the "Company") as of December 31, 2021 and 2020, and the related consolidated statements of income (loss), of comprehensive income (loss), of changes in shareholders' equity and of cash flows for each of the three years in the period ended December 31, 2021, including the related notes and financial statement schedule listed in the index appearing under Item 15 (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions
The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting
A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters
The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Annual Indefinite-lived Intangible Asset Impairment Assessment – Certain Trade Names and Trademarks
As described in Notes 2, 6 and 8 to the consolidated financial statements, the Company's consolidated indefinite-lived intangible assets balance, which includes trade names and trademarks, was $233 million as of December 31, 2021. Management conducts an impairment assessment annually during the fourth quarter, or more frequently if impairment indicators exist. An impairment exists when a trade name and trademark's carrying value exceeds its fair value. The fair values of these assets are based upon the prospective stream of hypothetical after-tax royalty cost savings discounted at rates that reflect the rates of return appropriate for these intangible assets. The primary inputs used in the impairment assessment of the trade names and trademarks are projected branded product sales, the revenue growth rate, the royalty rate, and the discount rate. No impairment expense was recognized for the year ended December 31, 2021 as a result of the Company's annual impairment assessment over the indefinite-lived intangible assets.

The principal considerations for our determination that performing procedures relating to the annual indefinite-lived intangible asset impairment assessment for certain trade names and trademarks is a critical audit matter are (i) the significant judgment by management when developing the fair value of the indefinite-lived intangible assets; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumption related to the royalty rate; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's indefinite-lived intangible asset impairment assessment, including controls over the annual valuation of trade names and trademarks. These procedures also included, among others (i) testing management's process for determining the fair value of certain indefinite-lived trade names and trademarks; (ii) evaluating the appropriateness of the valuation method; and (iii) testing the completeness and accuracy of underlying data used in the valuation method. Professionals with specialized skill and knowledge were used to assist in evaluating (i) the appropriateness of the valuation method and (ii) the reasonableness of the royalty rate significant assumption.

/s/ PricewaterhouseCoopers LLP
Milwaukee, Wisconsin
February 24, 2022

We have served as the Company's auditor since 2010.

TENNECO INC.
CONSOLIDATED STATEMENTS OF INCOME (LOSS)
(in millions, except per share amounts)

	Year Ended December 31		
	2021	2020	2019
Revenues			
Net sales and operating revenues	$ 18,035	$ 15,379	$ 17,450
Costs and expenses			
Cost of sales (exclusive of depreciation and amortization)	15,665	13,402	14,912
Selling, general, and administrative	1,017	889	1,138
Depreciation and amortization	593	639	673
Engineering, research, and development	285	273	324
Restructuring charges, net and asset impairments	69	622	126
Goodwill and intangible impairment charges	—	383	241
	17,629	16,208	17,414
Other income (expense)			
Non-service pension and postretirement benefit (costs) credits	13	18	(11)
Equity in earnings (losses) of nonconsolidated affiliates, net of tax	57	47	43
Gain (loss) on extinguishment of debt	8	2	—
Other income (expense), net	72	38	53
	150	105	85
Earnings (loss) before interest expense, income taxes, and noncontrolling interests	556	(724)	121
Interest expense	(274)	(277)	(322)
Earnings (loss) before income taxes and noncontrolling interests	282	(1,001)	(201)
Income tax (expense) benefit	(182)	(459)	(19)
Net income (loss)	100	(1,460)	(220)
Less: Net income (loss) attributable to noncontrolling interests	65	61	114
Net income (loss) attributable to Tenneco Inc.	$ 35	$ (1,521)	$ (334)
Earnings (loss) per share			
Basic earnings (loss) per share:			
Earnings (loss) per share	$ 0.43	$ (18.69)	$ (4.12)
Weighted average shares outstanding	82.2	81.4	80.9
Diluted earnings (loss) per share:			
Earnings (loss) per share	$ 0.42	$ (18.69)	$ (4.12)
Weighted average shares outstanding	83.6	81.4	80.9

The accompanying notes to the consolidated financial statements are an integral part of these consolidated statements of income (loss).

TENNECO INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in millions)

	Year Ended December 31		
	2021	2020	2019
Net income (loss)	$ 100	$ (1,460)	$ (220)
Other comprehensive income (loss)—net of tax:			
Foreign currency translation adjustments	(83)	(12)	16
Defined benefit plans	227	(11)	(45)
Cash flow hedges	(2)	4	—
	142	(19)	(29)
Comprehensive income (loss)	242	(1,479)	(249)
Less: Comprehensive income (loss) attributable to noncontrolling interests	58	75	104
Comprehensive income (loss) attributable to common shareholders	$ 184	$ (1,554)	$ (353)

The accompanying notes to the consolidated financial statements are an integral part of these consolidated statements of comprehensive income (loss).

TENNECO INC.
CONSOLIDATED BALANCE SHEETS
(in millions, except shares)

	December 31	
	2021	2020
ASSETS		
Current assets:		
Cash and cash equivalents	$ 859	$ 798
Restricted cash	6	5
Receivables:		
Customer notes and accounts, net	2,308	2,423
Other	111	105
Inventories	1,846	1,743
Prepayments and other current assets	683	619
Total current assets	5,813	5,693
Property, plant and equipment, net	2,872	3,057
Long-term receivables, net	5	8
Goodwill	507	508
Intangibles, net	1,056	1,194
Investments in nonconsolidated affiliates	539	581
Deferred income taxes	266	285
Other assets	564	526
Total assets	$ 11,622	$ 11,852
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Short-term debt, including current maturities of long-term debt	$ 57	$ 162
Accounts payable	2,955	2,917
Accrued compensation and employee benefits	381	365
Accrued income taxes	71	54
Accrued expenses and other current liabilities	1,227	1,188
Total current liabilities	4,691	4,686
Long-term debt	5,018	5,171
Deferred income taxes	105	89
Pension and postretirement benefits	830	1,101
Deferred credits and other liabilities	491	546
Commitments and contingencies (Note 13)		
Total liabilities	11,135	11,593
Redeemable noncontrolling interests	91	78
Tenneco Inc. shareholders' equity:		
Preferred stock - $0.01 par value; none issued	—	—
Class A voting common stock - $0.01 par value; shares issued: (2021 - 96,713,188; 2020 - 75,714,163)	1	1
Class B non-voting convertible common stock - $0.01 par value; shares issued: (2021 - none; 2020 - 20,308,454)	—	—
Additional paid-in capital	4,462	4,442
Accumulated other comprehensive loss	(595)	(744)
Accumulated deficit	(2,853)	(2,888)
Shares held as treasury stock - at cost: (2021 and 2020 - 14,592,888 shares)	(930)	(930)
Total Tenneco Inc. shareholders' equity (deficit)	85	(119)
Noncontrolling interests	311	300
Total equity	396	181
Total liabilities, redeemable noncontrolling interests, and equity	$ 11,622	$ 11,852

The accompanying notes to the consolidated financial statements are an integral part of these consolidated balance sheets.

TENNECO INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions)

	Year Ended December 31		
	2021	2020	2019
Operating Activities			
Net income (loss)	$ 100	$ (1,460)	$ (220)
Adjustments to reconcile net income (loss) to cash (used) provided by operating activities:			
Goodwill and intangible impairment charges	—	383	241
Depreciation and amortization	593	639	673
Deferred income taxes	12	301	(151)
Stock-based compensation	24	18	25
Restructuring charges and asset impairments, net of cash paid	(14)	500	11
Change in pension and postretirement benefit plans	(34)	(94)	(57)
Equity in earnings of nonconsolidated affiliates	(57)	(47)	(43)
Cash dividends received from nonconsolidated affiliates	64	23	53
Loss (gain) on sale of assets and other	7	(18)	—
Changes in operating assets and liabilities:			
Receivables	(408)	(182)	(225)
Inventories	(162)	279	284
Payables and accrued expenses	232	308	(66)
Accrued interest and accrued income taxes	27	(12)	3
Other assets and liabilities	(151)	(9)	(84)
Net cash (used) provided by operating activities	233	629	444
Investing Activities			
Acquisitions, net of cash acquired	—	—	(158)
Proceeds from sale of assets	55	29	20
Collection of divestiture receivable	27	16	—
Net proceeds from sale of business	1	9	22
Proceeds from sale of investment in nonconsolidated affiliates	8	—	2
Cash payments for property, plant and equipment	(387)	(394)	(744)
Proceeds from deferred purchase price of factored receivables	472	283	250
Other	—	—	2
Net cash (used) provided by investing activities	176	(57)	(606)
Financing Activities			
Proceeds from term loans and notes	839	654	200
Repayments and extinguishment costs of term loans and notes	(1,073)	(765)	(341)
Borrowings on revolving lines of credit	6,504	6,120	9,120
Payments on revolving lines of credit	(6,525)	(6,337)	(8,884)
Cash dividends	—	—	(20)
Debt issuance costs of long-term debt	(16)	(25)	—
Net decrease in bank overdrafts	—	(2)	(13)
Acquisition of additional ownership interest in consolidated affiliates	—	—	(10)
Distributions to noncontrolling interests	(40)	(42)	(43)
Other	(18)	39	(6)
Net cash (used) provided by financing activities	(329)	(358)	3
Effect of foreign exchange rate changes on cash, cash equivalents, and restricted cash	(18)	23	23
Increase (decrease) in cash, cash equivalents, and restricted cash	62	237	(136)
Cash, cash equivalents, and restricted cash, beginning of period	803	566	702
Cash, cash equivalents, and restricted cash, end of period	$ 865	$ 803	$ 566
Supplemental Cash Flow Information			
Cash paid during the year for interest	$ 219	$ 246	$ 284
Cash paid during the year for income taxes, net of refunds	$ 124	$ 154	$ 177
Non-cash inventory charge due to aftermarket product line exit	$ 44	$ 73	$ —
Non-cash Investing Activities			
Period end balance of accounts payable for property, plant and equipment	$ 104	$ 113	$ 134
Deferred purchase price of receivables factored in the period	$ 463	$ 299	$ 253
Increase (decrease) in assets from redeemable noncontrolling interest transaction with owner	$ —	$ (53)	$ 53

The accompanying notes to the consolidated financial statements are an integral part of these consolidated statements of cash flows.

TENNECO INC.
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
(in millions)

	Tenneco Inc. Shareholders' Equity (Deficit)							
	$0.01 Par Value Common Stock	Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Treasury Stock	Total Tenneco Inc. Shareholders' Equity (Deficit)	Noncontrolling Interests	Total Equity
Balance at December 31, 2018	$ 1	$ 4,360	$ (692)	$ (1,013)	$ (930)	$ 1,726	$ 190	$ 1,916
Net income (loss)	—	—	—	(334)	—	(334)	29	(305)
Other comprehensive income (loss)—net of tax:								
Foreign currency translation adjustments	—	—	26	—	—	26	—	26
Defined benefit plans	—	—	(45)	—	—	(45)	—	(45)
Comprehensive income (loss)						(353)	29	(324)
Acquisition of additional ownership interest in consolidated affiliates	—	(4)	—	—	—	(4)	(6)	(10)
Stock-based compensation, net	—	23	—	—	—	23	—	23
Cash dividends ($0.25 per share)	—	—	—	(20)	—	(20)	—	(20)
Redeemable noncontrolling interest transaction with owner	—	53	—	—	—	53	—	53
Purchase accounting measurement period adjustment	—	—	—	—	—	—	(2)	(2)
Distributions declared to noncontrolling interests	—	—	—	—	—	—	(17)	(17)
Balance at December 31, 2019	1	4,432	(711)	(1,367)	(930)	1,425	194	1,619
Net income (loss)	—	—	—	(1,521)	—	(1,521)	29	(1,492)
Other comprehensive income (loss)—net of tax:								
Foreign currency translation adjustments	—	—	(26)	—	—	(26)	11	(15)
Defined benefit plans	—	—	(11)	—	—	(11)	—	(11)
Cash flow hedges	—	—	4	—	—	4	—	4
Comprehensive income (loss)						(1,554)	40	(1,514)
Stock-based compensation, net	—	17	—	—	—	17	—	17
Reclassification of redeemable noncontrolling interest to permanent equity	—	—	—	—	—	—	82	82
Distributions declared to noncontrolling interests	—	—	—	—	—	—	(16)	(16)
Redeemable noncontrolling interest transaction with owner	—	(7)	—	—	—	(7)	—	(7)
Balance at December 31, 2020	1	4,442	(744)	(2,888)	(930)	(119)	300	181
Net income (loss)	—	—	—	35	—	35	31	66
Other comprehensive income (loss)—net of tax:								
Foreign currency translation adjustments	—	—	(76)	—	—	(76)	(3)	(79)
Defined benefit plans	—	—	227	—	—	227	—	227
Cash flow hedges	—	—	(2)	—	—	(2)	—	(2)
Comprehensive income (loss)						184	28	212

Stock-based compensation, net	—	20	—	—	—	20	—	20
Distributions declared to noncontrolling interests	—	—	—	—	—	—	(17)	(17)
Balance at December 31, 2021	$ 1	$ 4,462	$ (595)	$ (2,853)	$ (930)	$ 85	$ 311	$ 396

The accompanying notes to the consolidated financial statements are an integral part of these statements of changes in shareholders' equity.

TENNECO INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(in millions, except share and per share amounts, or as otherwise noted)

1. Description of Business and Basis of Presentation

Tenneco Inc. ("Tenneco" or "the Company") was formed under the laws of Delaware in 1996. Tenneco designs, manufactures, markets, and distributes products and services for light vehicle, commercial truck, off-highway, industrial, motorsport, and aftermarket customers. Tenneco consists of four operating segments, Motorparts, Performance Solutions, Clean Air, and Powertrain and serves both original equipment ("OE") manufacturers and the repair and replacement markets worldwide.

On February 22, 2022, the Company entered into an Agreement and Plan of Merger with Pegasus Holdings III, LLC and Pegasus Merger Co. Refer to Note 20, "Subsequent Events" for further information.

The consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP").

2. Summary of Significant Accounting Policies

Principles of Consolidation
The Company consolidates into its financial statements the accounts of the Company, all wholly owned subsidiaries, and any partially owned subsidiary it has the ability to control. Control generally equates to ownership percentage, whereby investments more than 50% owned are consolidated. Investments in affiliates of 50% or less but greater than 20% where the Company exercises significant influence are accounted for using the equity method. Equity investments of 20% or less that do not have a readily determinable fair value are measured at cost, less impairments, adjusted for observable price changes in orderly transactions for identical or similar investments. Refer to Note 7, "Investment in Nonconsolidated Affiliates" for further information.

The Company does not have any subsidiaries that it consolidates based solely on the power to direct the activities and significant participation in the entity's expected results that would not otherwise be consolidated based on control through voting interests. Further, its affiliates are businesses established and maintained in connection with its operating strategy and are not special purpose entities. All intercompany transactions and balances have been eliminated.

Impairment of Investments in Affiliates
The Company monitors its investments in affiliates for indicators of other-than-temporary declines in value on an ongoing basis. If the Company determines that such a decline has occurred, an impairment loss would be recorded, which would be measured as the difference between the carrying value and the fair value of the investment.

Use of Estimates
The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported therein. Due to the inherent uncertainty involved in making estimates, actual results reported in future periods may be based upon amounts that differ from these estimates.

There are many uncertainties related to the COVID-19 global pandemic, the semiconductor shortage, other supply chain challenges, and the effects of inflation on commodities and other purchases that could negatively affect the Company's results of operations, financial position, and cash flows.

Reclassifications
Certain amounts in the prior years have been aggregated or disaggregated to conform to current year presentation.

Cash Equivalents and Restricted Cash
The Company considers all highly liquid investments with maturities of 90 days or less from the date of original issuance to be cash equivalents.

The Company is required to provide cash collateral in connection with certain contractual arrangements and statutory requirements. The Company has $6 million and $5 million of restricted cash at December 31, 2021 and 2020 in support of these arrangements and requirements.

Notes and Accounts Receivable

Notes and accounts receivable are stated at net realizable value, which approximates fair value. Receivables are reduced by an allowance for amounts that may become uncollectible in the future. The allowance is an estimate based on expected losses, current economic and market conditions, and a review of the current status of each customer's trade accounts or notes receivable. A receivable is past due if payments have not been received within the agreed-upon invoice terms. Account balances are charged-off against the allowance when management determines the receivable will not be recovered.

The allowance for doubtful accounts on "Customer notes and accounts, net" was $26 million and $32 million at December 31, 2021 and 2020.

Inventories

Inventories are stated at the lower of cost or net realizable value using the first-in, first-out ("FIFO") or average cost methods. Work in process includes purchased parts such as substrates coated with precious metals. Cost of inventory includes direct materials, labor, and applicable manufacturing overhead costs. The value of inventories is reduced for excess and obsolescence based on management's review of on-hand inventories compared to historical and estimated future sales and usage.

For the year ended December 31, 2019, the Company recorded non-cash charges to cost of goods sold to recognize the remaining step up in inventory fair values of $44 million from the Federal-Mogul LLC acquisition and $5 million from the Öhlins acquisition.

Held for Sale and Divestitures

The Company classifies assets and liabilities as held for sale ("disposal group") when management, having the authority to approve the action, commits to a plan to sell the disposal group, the sale is probable within one year, and the disposal group is available for immediate sale in its present condition. The Company also considers whether an active program to locate a buyer has been initiated, whether the disposal group is marketed actively for sale at a price that is reasonable in relation to its current fair value, and whether actions required to complete the plan indicate it is unlikely significant changes to the plan will be made or the plan will be withdrawn. The Company estimates fair value to approximate the expected proceeds to be received, less cost to sell, and compare it to the carrying value of the disposal group. An impairment charge is recognized when the carrying value exceeds the estimated fair value.

At December 31, 2021 and 2020, the Company had $22 million and $15 million of assets held for sale, which primarily consists of land and buildings, and non-core machinery and equipment across multiple segments that are expected to be sold in the next twelve months, as well as $9 million and less than $1 million in related environmental and asset retirement obligation liabilities. The Company recognized non-cash impairment charges of $10 million, and $1 million, during the years ended December 31, 2021 and 2020 resulting from recognizing the related assets as held for sale.

In the fourth quarter of 2020, the Company closed on the sale of a non-core business and its related assets for $15 million. The Company received $6 million of the purchase price at closing in 2020 with the remaining to be received in installment payments through the fourth quarter of 2023. The Company recognized non-cash impairment charges of $1 million, and $8 million for the years ended December 31, 2020 and 2019 on recognizing the related assets as held for sale.

On March 1, 2019, in accordance with a stock and asset purchase agreement, the Company sold certain assets and liabilities related to a non-core business and received proceeds of $22 million, subject to customary working capital adjustments. During the year ended December 31, 2020, the Company received $3 million of proceeds due to the finalization of working capital adjustments.

The assets and liabilities held for sale are recorded in "Prepayments and other current assets" and "Accrued expenses and other current liabilities" in the consolidated balance sheets at December 31, 2021 and 2020.

Acquisition

On January 10, 2019, the Company completed the acquisition of a 90.5% ownership interest in Öhlins Intressenter AB ("Öhlins", the "Öhlins Acquisition"), a Swedish technology company that develops premium suspension systems and components for the automotive and motorsport industries, for a purchase price of $162 million (including $4 million of cash acquired). The remaining 9.5% ownership interest in Öhlins Intressenter AB (the "KÖ Interest") was retained by K Öhlin Holding AB ("Köhlin"). Refer to "Redeemable Noncontrolling Interests" section below, for further information on the KÖ Interest.

Redeemable Noncontrolling Interests

The Company has noncontrolling interests with redemption features. These redemption features could require the Company to make an offer to purchase the noncontrolling interests in the event of a change in control of Tenneco Inc. or certain of its subsidiaries.

At December 31, 2021 and 2020, the Company held redeemable noncontrolling interests of $50 million and $45 million which were not currently redeemable or probable of becoming redeemable. The redemption of these redeemable noncontrolling interests is not solely within the Company's control, therefore, they are presented in the temporary equity section of the Company's consolidated balance sheets. The Company does not believe it is probable the redemption features related to these noncontrolling interest securities will be triggered, as a change in control event is generally not probable until it occurs. As such, these noncontrolling interests have not been remeasured to redemption value.

In addition, at December 31, 2021 and 2020, the Company held a redeemable noncontrolling interest of $41 million and $33 million which was probable of becoming redeemable. This noncontrolling interest is also presented in the temporary equity section of the Company's consolidated balance sheets and has been remeasured to its redemption value. The Company immediately recognizes changes to redemption value as a component of "Net income (loss) attributable to noncontrolling interests" in the consolidated statements of income (loss). Köhlin has an irrevocable right at any time after the third anniversary of the Öhlins acquisition to sell the KÖ Interest to the Company. During the years ended December 31, 2021, 2020 and 2019, the Company recognized an increase of $11 million, $10 million and $5 million to the carrying value of this noncontrolling interest.

During the first quarter of 2020, the Company completed the process to make a tender offer of the shares it did not own for a subsidiary in India acquired by the Company as part of the Federal-Mogul LLC acquisition on October 1, 2018, in accordance with local regulations. As a result of completing the tender offer, the redeemable noncontrolling interest was no longer redeemable or probable of becoming redeemable and the amount of $82 million was reclassified to permanent equity during the year ended December 31, 2020. The Company recognized an adjustment of $53 million loss to income available to common shareholders concurrently with marking the related redeemable noncontrolling interest to its redemption value in the year ended December 31, 2019. Refer to Note 19, "Related Party Transactions", for additional information related to the tender offer of this noncontrolling interest.

The following is a rollforward of activities in the Company's redeemable noncontrolling interests:

	Year Ended December 31		
	2021	2020	2019
Balance at beginning of period	$ 78	$ 196	$ 138
Net income attributable to redeemable noncontrolling interests	23	22	27
Other comprehensive (loss) income	(4)	3	(10)
Acquisition and other	—	—	17
Noncontrolling interest tender offer redemption	—	(46)	—
Redemption value remeasurement adjustments	11	10	58
Purchase accounting measurement period adjustments	—	—	(8)
Reclassification of noncontrolling interest to permanent equity	—	(82)	—
Dividends declared to noncontrolling interests	(17)	(25)	(26)
Balance at end of period	$ 91	$ 78	$ 196

Long-Lived Assets

Long-lived assets, such as property, plant and equipment and definite-lived intangible assets are recorded at cost or fair value established at acquisition. Definite-lived intangible assets include customer relationships and platforms, patented and unpatented technology, and licensing agreements. Long-lived asset groups are evaluated for impairment when impairment indicators exist. If the carrying value of a long-lived asset group is impaired, an impairment charge is recorded for the amount by which the carrying value of the long-lived asset group exceeds its fair value. Depreciation and amortization are computed principally on a straight-line basis over the estimated useful lives of the assets for financial reporting purposes. Expenditures for maintenance and repairs are expensed as incurred.

Certain costs related to the purchase and development of software used in the business operations are capitalized and included in property, plant and equipment. Costs attributable to these software systems are amortized over their estimated useful lives based on various factors such as the effects of obsolescence, technology, and other economic factors. Additions to capitalized software development costs, including payroll and payroll-related costs for those employees directly associated with developing and obtaining the internal use software, are classified as investing activities in the consolidated statements of cash flows.

Goodwill and Other Indefinite-Lived Intangible Assets
Goodwill is determined as the excess of fair value over amounts attributable to specific tangible and intangible assets. Goodwill is evaluated for impairment during the fourth quarter of each year, or more frequently, if impairment indicators exist. An impairment indicator exists when a reporting unit's carrying value exceeds its fair value. When performing the goodwill impairment testing, a reporting unit's fair value is based on valuation techniques using the best available information. The assessment of fair value utilizes a combination of the income approach and market approach. The impairment charge is the excess of the goodwill's carrying value over the implied fair value of goodwill using a one-step quantitative approach.

Other indefinite-lived intangible assets related to trade names and trademarks are stated at fair value established at acquisition or cost. These indefinite-lived intangible assets are evaluated for impairment during the fourth quarter of each year, or more frequently, if impairment indicators exist. An impairment exists when a trade name and trademark's carrying value exceeds its fair value. The fair values of these assets are based upon the prospective stream of hypothetical after-tax royalty cost savings discounted at rates that reflect the rates of return appropriate for these intangible assets. The impairment charge is the excess of the asset's carrying value over its fair value.

Pre-production Design and Development and Tooling Assets
The Company expenses pre-production design and development costs as incurred unless there is a contractual guarantee for reimbursement from the OE customer. Costs for molds, dies, and other tools used to make products sold on long-term supply arrangements for which the Company has title to the assets are capitalized in property, plant and equipment and amortized to cost of sales over the shorter of the term of the arrangement or over the estimated useful lives of the assets. Costs for molds, dies, and other tools used to make products sold on long-term supply arrangements for which the Company has a contractual guarantee for reimbursement or has the non-cancelable right to use the assets during the term of the supply arrangement from the customer are capitalized.

"Prepayments and other current assets" in the consolidated balance sheets included $112 million and $143 million at December 31, 2021 and 2020 for in-process tools and dies being built for OE customers and unbilled pre-production design and development costs.

Fair Value Measurements
A three-level valuation hierarchy, based upon observable and unobservable inputs, is used for fair value measurements. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect market assumptions based on the best evidence available. A financial instrument's categorization within the hierarchy is based on the lowest level of input that is significant to the fair value measurement. The fair value hierarchy definition prioritizes the inputs used in measuring fair value into the following levels:

Level 1 — Quoted prices in active markets for identical assets or liabilities.
Level 2 — Inputs, other than quoted prices in active markets, that are observable either directly or indirectly.
Level 3 — Unobservable inputs based on the Company's own assumptions.

Income Taxes
Deferred tax assets and liabilities are recognized on the basis of the future tax consequences attributable to temporary differences that exist between the financial statement carrying value of assets and liabilities and the respective tax values, and net operating losses ("NOL") and tax credit carryforwards on a taxing jurisdiction basis. Deferred tax assets and liabilities are measured using enacted tax rates that will apply in the years in which the temporary differences are expected to be recovered or paid. The effect on deferred tax assets and liabilities of a change in tax rates is recorded in the results of operations in the period that includes the enactment date under the law.

Deferred income tax assets are evaluated quarterly to determine if valuation allowances are required or should be adjusted. Valuation allowances are established in certain jurisdictions based on a more likely than not standard. The ability to realize deferred tax assets depends on the Company's ability to generate sufficient taxable income within the carryback or carryforward periods provided for in the tax law for each tax jurisdiction. The Company considers the various possible sources of taxable income when assessing the realization of its deferred tax assets. The valuation allowances recorded against deferred tax assets generated by taxable losses in certain jurisdictions will affect the provision for income taxes until the valuation allowances are released. The Company's provision for income taxes will include no tax benefit for losses incurred and no tax expense with respect to income generated in these jurisdictions until the respective valuation allowance is eliminated.

The Company records uncertain tax positions on the basis of a two-step process whereby it is determined whether it is more likely than not that the tax positions will be sustained based on the technical merits of the position, and for those tax positions that meet the more likely than not criteria, the largest amount of tax benefit that is greater than 50% likely to be realized upon ultimate settlement with the related tax authority is recognized.

The Company elected to account for Global Intangible Low-Taxed Income ("GILTI") as a current-period expense when incurred.

Pension and Other Postretirement Benefit Plan Obligations
Pensions and other postretirement employee benefit costs and related liabilities and assets are dependent upon assumptions used in calculating such amounts. These assumptions include discount rates, long term rate of return on plan assets, health care cost trends, compensation, and other factors. Actual results that differ from the assumptions used are accumulated and amortized over future periods, and accordingly, generally affect recognized expense in future periods. The cost of benefits provided by defined benefit pension and other postretirement plans is recorded in the period employees provide service. Future pension expense for certain significant funded benefit plans is calculated using an expected return on plan asset methodology.

Investments with registered investment companies, common and preferred stocks, and certain government debt securities are valued at the closing price reported on the active market on which the securities are traded. Corporate debt securities are valued by third-party pricing sources using the multi-dimensional relational model using instruments with similar characteristics. Hedge funds and the collective trusts are valued at net asset value ("NAV") per share which are provided by the respective investment sponsors or investment advisers.

Leases
The Company has elected the practical expedient to not separate non-lease components from the lease components to which they relate, and instead account for each separate lease and non-lease component associated with that lease component as a single lease component for all underlying asset classes. Accordingly, all costs associated with a lease contract are accounted for as lease cost. Lease expense is recorded in operating expenses in the results of operations.

Revenue Recognition
The Company accounts for a contract with a customer when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance, and collectability of consideration is probable.

Revenue is recognized for sales to OE and aftermarket customers when transfer of control of the related good or service has occurred. Revenue from most OE and aftermarket goods and services is transferred to customers at a point in time. The customer is invoiced once transfer of control has occurred and the Company has a right to payment. Typical payment terms vary based on the customer and the type of goods and services in the contract. The period of time between invoicing and when payment is due is not significant. Amounts billed and due from customers are classified as "Customer notes and accounts, net" in the consolidated balance sheets. Standard payment terms are less than one year and the Company applies the practical expedient to not assess whether a contract has a significant financing component if the payment terms are less than one year.

Performance Obligations: The majority of the Company's customer contracts with OE and aftermarket customers are long-term supply arrangements. The performance obligations are established by the enforceable contract, which is generally considered to be the purchase order but, in some cases could be the delivery release schedule. The purchase order, or related delivery release schedule, is of a duration of less than one year. As such, the Company does not disclose information about remaining performance obligations that have original expected durations of one year or less, for which work has not yet been performed.

Rebates: The Company accrues for rebates pursuant to specific arrangements primarily with aftermarket customers. Rebates generally provide for payments to customers based upon the achievement of specified purchase volumes and are recorded as a reduction of sales as earned by such customers.

Product Returns: Certain aftermarket contracts with customers include terms and conditions that result in a customer right of return that is accounted for on a gross basis. For these contracts the Company has recorded a refund liability within other accrued liabilities and a return asset within "Prepayments and other current assets" in the consolidated balance sheets.

Shipping and Handling Costs: Shipping and handling costs associated with outbound freight after control of a product has transferred to a customer are accounted for as a fulfillment cost and are included in "Cost of sales (exclusive of depreciation and amortization)" in the consolidated statements of income (loss).

Sales and Sales Related Taxes: The Company collects and remits taxes assessed by various governmental authorities that are both imposed on and concurrent with revenue-producing transactions with its customers. These taxes may include, but are not limited to, sales, use, value-added, and some excise taxes. The collection and remittance of these taxes is reported on a net basis.

Contract Balances: Contract assets primarily relate to the Company's rights to consideration for work completed but not billed at the reporting date on contracts with customers. The contract assets are transferred to accounts receivable when the rights become unconditional. Contract liabilities primarily relate to contracts where advance payments or deposits have been received, but performance obligations have not yet been met, and therefore, revenue has not been recognized. There have been no impairment losses recognized related to any accounts receivable or contract assets arising from the Company's contracts with customers.

Engineering, Research, and Development
The Company records engineering, research, and development costs ("R&D") net of customer reimbursements as they are considered a recovery of cost.

Advertising and Promotion Expenses
The Company expenses advertising and promotional expenses as incurred and these expenses were $36 million, $24 million, and $45 million for the years ended December 31, 2021, 2020, and 2019.

Other Income (Expense)
Other income (expense) for the year ended December 31, 2021 includes $32 million in gains on sale-leaseback transactions. Other income (expense) for the year ended December 31, 2019 includes a $22 million recovery of value-added tax in a foreign jurisdiction.

Foreign Currency Translation
Exchange adjustments related to foreign currency transactions and remeasurement adjustments for foreign subsidiaries whose functional currency is the U.S. dollar are reflected in the consolidated statements of income (loss). Translation adjustments of foreign subsidiaries for which local currency is the functional currency are reflected in the consolidated balance sheets as a component of "Accumulated other comprehensive loss". Transaction gains and losses arising from fluctuations in currency exchange rates on transactions denominated in currencies other than the functional currency are recognized in earnings as incurred, except for those intercompany balances for which settlement is not planned or anticipated in the foreseeable future. The amounts recorded in "Cost of sales (exclusive of depreciation and amortization)" in the consolidated statements of income (loss) for foreign currency transactions included losses of $20 million, $17 million, and $11 million for the years ended December 31, 2021, 2020, and 2019.

Derivative Financial Instruments
For derivative instruments to qualify as hedging instruments, they must be designated as a fair value hedge, cash flow hedge or a hedge of a net investment in a foreign operation. Gains and losses related to a hedge are either recognized in income immediately to offset the gain or loss on the hedged item or are deferred and reported as a component of accumulated other comprehensive income (loss) and subsequently recognized in earnings when the hedged item affects earnings. The change in fair value of the ineffective portion of a derivative financial instrument, determined using the hypothetical derivative method, is recognized in earnings immediately. The gain or loss related to derivative financial instruments not designated as hedges are recognized immediately in earnings. Cash flows related to hedging activities are included in the operating section of the consolidated statements of cash flows.

3. Restructuring Charges, Net and Asset Impairments

The Company's restructuring activities are undertaken as necessary to execute management's strategy and streamline operations, consolidate and take advantage of available capacity and resources, and ultimately achieve net cost reductions. Restructuring activities include efforts to integrate and rationalize the Company's businesses and to relocate operations to best cost locations.

The Company's restructuring charges consist primarily of employee costs (principally severance and/or termination benefits), and facility closure and exit costs. Restructuring charges, net and asset impairments by segment are as follows:

Year Ended December 31, 2021

	Year Ended December 31, 2021					
	Motorparts	Performance Solutions	Clean Air	Powertrain	Corporate	Total
Severance and other charges, net	$ 5	$ 12	$ 7	$ 22	$ 2	$ 48
Asset impairments related to restructuring actions	2	—	—	—	—	2
Other non-restructuring asset impairments	1	—	1	—	7	9
Impairment of assets held for sale	—	—	10	—	—	10
Total asset impairment charges	3	—	11	—	7	21
Total restructuring charges, asset impairments, and other	$ 8	$ 12	$ 18	$ 22	$ 9	$ 69

Severance and other charges, net
In response to the COVID-19 global pandemic, the Company announced Project Accelerate and executed global headcount reductions. The Company began implementing these actions during the second quarter of 2020 and expects to complete them during 2022. The Company recognized a reduction of $4 million in revisions to estimates for the cash severance costs expected to be paid in connection with these actions for the year ended December 31, 2021.

The Company recognized a net charge of $27 million in severance and other charges expected to be paid for cost reduction initiatives aimed at optimizing the Company's cost structure across all segments and regions for the year ended December 31, 2021.

The Company also recognized severance and other charges of $25 million related to plant consolidations, relocations, and closures for the year ended December 31, 2021.

During the year ended December 31, 2021, the Company made revisions to previously recorded estimates and reduced its restructuring reserves by $36 million due to various changes in the business, including natural attrition and changes in demand.

Motorparts recognized severance and other charges, and revisions to estimates as follows:
- $3 million in connection with its supply chain rationalization and distribution network initiative, which was initiated during the 2nd quarter of 2020, to achieve efficiencies and improve throughput to its customers in North America;
- $2 million, along with a reduction of $7 million in revisions to estimates, in connection with cost reduction initiatives primarily in Europe; and
- $7 million related to plant consolidations, relocations, and closures, primarily in Europe.

Performance Solutions recognized severance and other charges, and revisions to estimates as follows:
- $13 million, along with a reduction of $5 million in revisions to estimates, in connection with cost reduction initiatives primarily in Europe;
- $6 million, along with a reduction of $1 million in revisions to estimates, related to plant consolidations, relocations, and closures, primarily in North America; and
- $1 million reduction as a result of revisions to estimates in connection with Project Accelerate.

Clean Air recognized severance and other charges, and revisions to estimates as follows:
- $18 million, along with a reduction of $12 million in revisions to estimates, in connection with the other cost reduction initiatives primarily in Europe;

- $5 million, along with a reduction of $1 million in revisions to estimates, related to plant consolidations and closures primarily in North America and Asia Pacific; and
- $3 million reduction as a result of revisions to estimates in connection with Project Accelerate.

Powertrain recognized severance and other charges, and revisions to estimates as follows:

- $12 million, along with a reduction of $6 million in revisions to estimates, in connection with cost reduction initiatives primarily in Europe;
- $9 million related to plant consolidations, relocations, and closures, primarily in Europe; and
- $7 million restructuring costs incurred related to an approved voluntary termination program at one of its European bearings plants aimed at reducing headcount. At December 31, 2021, total severance related restructuring charges for this program aggregate to $15 million. During the year ended December 31, 2021, an additional $5 million of special termination benefits were approved under this program. Total severance related charges are expected to be approximately $36 million, comprised of approximately $10 million for postemployment benefits, including an early retirement program, and $26 million of special termination benefits. In addition, the Company expects to incur additional costs of approximately $2 million for customer validation, equipment transfer, and related expenditures.

The Company also incurred $2 million in cash and severance costs within its corporate component for the year ended December 31, 2021.

Asset impairments

Asset impairments related to restructuring actions

During the year ended December 31, 2021, as a result of the supply chain rationalization and distribution network in the Motorparts segment, asset impairment charges of $2 million were recognized related to the write-down of property, plant and equipment. Refer to Note 4, "Inventories" for additional information related to this action.

Other non-restructuring asset impairments

During the year ended December 31, 2021, the Motorparts and Clean Air segments recognized asset impairment charges of $1 million and $1 million related to write-down of property, plant and equipment.

During the year ended December 31, 2021, the Company assessed and concluded an impairment trigger had occurred in its corporate component and recognized an impairment charge of $7 million. The asset impairment charge included $3 million related to property, plant and equipment and $4 million related to operating lease right-of-use assets.

Year Ended December 31, 2020

	Year Ended December 31, 2020					
	Motorparts	Performance Solutions	Clean Air	Powertrain	Corporate	Tot
Severance and other charges, net	17	25	22	50	5	11
Asset impairments related to restructuring actions	26	—	—	3	—	2
Other non-restructuring asset impairments	—	455	—	—	17	47
Impairment of assets held for sale	1	—	—	1	—	
Total asset impairment charges	27	455	—	4	17	50
Total restructuring charges, asset impairments, and other	44	480	22	54	22	62

Severance and other charges, net

In conjunction with the Company's previously announced Project Accelerate, and in response to the COVID-19 global pandemic, the Company executed global headcount reductions. As noted above, the Company began implementing these actions during the second quarter of 2020. The Company recognized charges of $26 million in connection with the cash severance costs expected to be paid in connection with these actions for the year ended December 31, 2020.

In addition to the actions above, the Company initiated several other cost reduction initiatives across all segments and regions aimed at optimizing the Company's cost structure. The Company recognized cash severance charges of $65 million expected to be paid under these programs for the year ended December 31, 2020.

The Company recognized severance and other charges of $28 million related to plant consolidations, relocations, and closures for the year ended December 31, 2020.

Motorparts recognized severance and other charges, and revisions to estimates as follows:

- $5 million in connection with Project Accelerate;
- $7 million, along with a reduction of $2 million in revisions to estimates, in connection with cost reduction initiatives primarily in Europe;
- $4 million, along with a reduction of $1 million in revisions to estimates related to plant consolidations, relocations, and closures primarily in Europe; and
- $4 million in connection with its supply chain rationalization and distribution network initiative to achieve efficiencies and improve throughput to its customers in North America.

Performance Solutions recognized severance and other charges, and revisions to estimates as follows:

- $3 million in connection with Project Accelerate;
- $11 million, along with a reduction of $3 million in revisions to estimates, in connection with cost reduction initiatives primarily in Europe; and
- $15 million, along with a reduction of $1 million in revisions to estimates, related to plant consolidations, relocations, and closures, primarily in North America.

Clean Air recognized severance and other charges, and revisions to estimates as follows:

- $9 million in connection with Project Accelerate;
- $16 million, along with a reduction of $2 million in revisions to estimates, in connection with cost reduction initiatives primarily in Europe; and
- $5 million, along with a reduction of $6 million in revisions to estimates, related to plant consolidations and closures primarily in Europe and Asia Pacific.

Powertrain recognized severance and other charges, and revisions to estimates as follows:

- $8 million in connection with Project Accelerate;
- $23 million, along with a reduction of $1 million in revisions to estimates, in connection with cost reduction initiatives primarily in Europe;
- $17 million, along with a reduction of $5 million in revisions to estimates related to plant consolidations, relocations, and closures, primarily in Europe and North America; and
- On June 30, 2020, the Company approved a voluntary termination program within the Powertrain segment at one of its European bearings' plants aimed at reducing headcount, as negotiated with the works council and union. The Company began implementing headcount reductions during 2020 and the program continued into 2021 through a voluntary early retirement program and a voluntary special termination program. During the year ended December 31, 2020, restructuring costs incurred related to this program were $8 million.

The Company also incurred $4 million in cash severance costs for the elimination of certain redundant positions and $1 million in cash severance costs in connection with Project Accelerate within its corporate component for the year ended December 31, 2020.

Asset impairments

Asset impairments related to restructuring actions

In the second quarter of 2020, the Motorparts segment initiated a rationalization of its supply chain and distribution network resulting in asset impairment charges of $25 million, which included $16 million related to the write-down of property, plant and equipment to its fair value, and $9 million of impairment charge to its operating lease right-of-use assets.

During the year ended December 31, 2020, as a result of actions in the Motorparts and Powertrain segments, asset impairment charges of $1 million and $3 million were recognized related to the write-down of property, plant and equipment.

Other non-restructuring asset impairments

The Company evaluates its long-lived assets for impairment whenever events or circumstances indicate the value of these long-lived asset groups are not recoverable. During the first quarter of 2020, the Company concluded impairment triggers had occurred for certain long-lived asset groups in the Performance Solutions segment as a result of the effects of the COVID-19 global pandemic on the Company's projected financial information. Accordingly, the Company tested these long-lived asset groups for recoverability by performing undiscounted cash flow analyses. Based on these analyses, the net carrying values of these asset groups exceeded their undiscounted future cash flows. As such, the Company estimated the fair values of these asset groups at March 31, 2020 and compared them to their carrying values. As the net carrying values of these long-lived asset groups exceeded their fair values, the Company recorded long-lived asset impairment charges for property, plant and equipment of $455 million during the year ended December 31, 2020. Refer to Note 8, "Financial Instruments and Fair Value" for additional information on the fair value estimates used in these analyses.

As a result of changes in the business, during the first quarter of 2020, the Company assessed and concluded an impairment trigger had occurred for certain long-lived asset groups in its corporate component. Accordingly, the Company tested these long-lived asset groups for recoverability. The Company estimated the fair value of these asset groups and compared it to the carrying value. As the net carrying value exceeded fair value, the Company recorded long-lived asset impairment charges of $17 million for the year ended December 31, 2020. Included in the asset impairment charges for the year ended December 31, 2020 are $11 million related to property, plant and equipment and $6 million related to operating lease right-of-use assets.

Year Ended December 31, 2019

	Year Ended December 31, 2019					
	Motorparts	Performance Solutions	Clean Air	Powertrain	Corporate	Total
Severance and other charges, net	$ 14	$ 28	$ 29	$ 31	$ 11	$ 113
Asset impairments related to restructuring actions	—	3	—	—	—	3
Other non-restructuring asset impairments	1	—	1	—	—	2
Impairment of assets held for sale	8	—	—	—	—	8
Total asset impairment charges	9	3	1	—	—	13
Total restructuring charges, asset impairments, and other	$ 23	$ 31	$ 30	$ 31	$ 11	$ 126

The Company initiated several cost reduction initiatives across all segments and regions aimed at optimizing the Company's cost structure. The Company recognized cash severance charges of $69 million expected to be paid under these programs for the year ended December 31, 2019. In addition, the Company recognized severance and other charges of $44 million related to plant consolidations, relocations, and closures for the year ended December 31, 2019.

Severance and other charges, net

Motorparts recognized severance and other charges, and revisions to estimates as follows:

- $13 million, along with a reduction of $3 million in revisions to estimates, in connection with cost reduction initiatives primarily in Europe; and
- $6 million, along with a reduction of $2 million in revisions to estimates related to plant consolidations, relocations, and closures primarily in North America and Europe.

Performance Solutions recognized severance and other charges, and revisions to estimates as follows:

- $10 million, along with a reduction of $1 million in revisions to estimates, in connection with cost reduction initiatives primarily in Europe; and
- $19 million related to plant consolidations, relocations, and closures, primarily in North America.

Clean Air recognized severance and other charges, and revisions to estimates as follows:

- $18 million, along with a reduction of $4 million in revisions to estimates, in connection with cost reduction initiatives primarily in Europe; and
- $17 million, along with a reduction of $2 million in revisions to estimates, related to plant consolidations and closures primarily in Europe and Asia Pacific.

Powertrain recognized severance and other charges as follows:

- $25 million in connection with cost reduction initiatives primarily in Europe; and
- $6 million related to plant consolidations, relocations, and closures, primarily in North America.

The Company also incurred $11 million in cash and severance costs within its corporate component for the year ended December 31, 2019.

Asset impairments
Asset impairments related to restructuring actions
During the year ended December 31, 2019, as a result of actions in the Performance Solutions segment, an asset impairment charge of $3 million was recognized related to the write-down of property, plant and equipment.

Other non-restructuring asset impairments
During the year ended December 31, 2019, the Motorparts and Clean Air segments recognized asset impairment charges of $1 million and $1 million related to write-down of property, plant and equipment.

Restructuring Reserve Rollforward
The following table provides a summary of the Company's consolidated restructuring liabilities and related activity for each type of exit costs:

	Employee Costs	Facility Closure and Other Costs	Total
Balance at December 31, 2018	$ 98	$ 5	$ 103
Provisions	103	22	125
Revisions to estimates	(12)	—	(12)
Payments	(92)	(23)	(115)
Balance at December 31, 2019	97	4	101
Provisions	124	16	140
Revisions to estimates	(18)	(3)	(21)
Payments	(106)	(16)	(122)
Foreign currency	2	—	2
Balance at December 31, 2020	99	1	100
Provisions	74	10	84
Revisions to estimates	(36)	—	(36)
Payments	(72)	(11)	(83)
Foreign currency	(2)	—	(2)
Balance at December 31, 2021	$ 63	$ —	$ 63

4. Inventories

Inventory by major classification was as follows:

	December 31 2021	2020
Finished goods	$ 747	$ 758
Work in process	508	449
Raw materials	510	441
Materials and supplies	81	95
Total inventories	$ 1,846	$ 1,743

In the second quarter of 2020, the Motorparts segment initiated a rationalization of its supply chain and distribution network to achieve supply chain efficiencies and improve throughput to its customers. As a result, it was determined that certain assets, including inventory, real estate, and personal property, would no longer be utilized. During the year ended December 31, 2020, the Motorparts segment recognized an $82 million non-cash charge to write-down inventory to its net realizable value. As part of management's ongoing efforts related to this initiative, during the year ended December 31, 2021, the Motorparts segment recognized a non-cash charge of $44 million to write-down inventory to its net realizable value. Refer to Note 3, "Restructuring Charges, Net and Asset Impairments" for additional information.

5. Property, Plant and Equipment, Net

The components of property, plant and equipment, net were as follows:

	Useful Lives (in Years)	December 31 2021	December 31 2020
Land	—	$ 251	$ 261
Buildings and improvements	10 to 50	984	1,086
Machinery, equipment and tooling	3 to 25	3,990	3,885
Capitalized software	3 to 12	248	265
Other, including construction in progress	—	351	374
Property, plant and equipment, cost		5,824	5,871
Less: Accumulated depreciation and amortization		(2,952)	(2,814)
Property, plant and equipment, net		$ 2,872	$ 3,057

For the years ended December 31, 2021, 2020, and 2019, depreciation and amortization related to property, plant and equipment was $465 million, $509 million, and $535 million.

6. Goodwill and Other Intangible Assets

The Company performs an annual quantitative goodwill and indefinite-lived asset impairment analysis during the fourth quarter, which requires it to estimate the fair value of its reporting units with goodwill. Refer to Note 8, "Financial Instruments and Fair Value", for additional information on the fair value measurements used in the annual goodwill and indefinite-lived impairment analysis.

As discussed in Note 18, "Segment and Geographic Area Information", during the first quarter of 2021, the Company moved a reporting unit within the Powertrain segment to the Ride Performance segment and Ride Performance was renamed Performance Solutions.

At December 31, 2021 and 2020, goodwill consisted of the following:

	December 31, 2021				
	Motorparts	Performance Solutions	Clean Air	Powertrain	Total
Gross carrying amount at beginning of period	$ 623	$ 549	$ 23	$ 59	$ 1,254
Foreign exchange	—	(3)	(1)	—	(4)
Gross carrying amount at end of period	623	546	22	59	1,250
Accumulated impairment loss at beginning of period	(310)	(377)	—	(59)	(746)
Foreign exchange	—	3	—	—	3
Accumulated impairment loss at end of period	(310)	(374)	—	(59)	(743)
Net carrying value at end of period	$ 313	$ 172	$ 22	$ —	$ 507

	December 31, 2020				
	Motorparts	Performance Solutions	Clean Air	Powertrain	Total
Gross carrying amount at beginning of period	$ 620	$ 543	$ 22	$ 59	$ 1,244
Reclassification from assets held for sale	2	—	—	—	2
Foreign exchange	1	6	1	—	8
Gross carrying amount at end of period	623	549	23	59	1,254
Accumulated impairment loss at beginning of period	(239)	(212)	—	(18)	(469)
Impairment	(70)	(156)	—	(41)	(267)
Foreign exchange	(1)	(9)	—	—	(10)
Accumulated impairment loss at end of period	(310)	(377)	—	(59)	(746)
Net carrying value at end of period	$ 313	$ 172	$ 23	$ —	$ 508

At December 31, 2021 and 2020, intangible assets consisted of the following:

		December 31, 2021			December 31, 2020		
	Useful Lives (in Years)	Gross Carrying Value	Accumulated Amortization	Net Carrying Value	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Definite-lived intangible assets:							
Customer relationships and platforms	10	$ 993	$ (374)	$ 619	$ 995	$ (282)	$ 713
Customer contract	10	8	(7)	1	8	(6)	2
Patents	10 to 17	1	(1)	—	1	(1)	—
Technology rights	10 to 30	135	(62)	73	139	(51)	88
Packaged kits know-how	10	54	(18)	36	54	(12)	42
Catalogs	10	47	(15)	32	47	(11)	36
Licensing agreements	3 to 5	64	(47)	17	66	(35)	31
Land use rights	28 to 46	51	(6)	45	49	(4)	45
		$ 1,353	$ (530)	823	$ 1,360	$ (402)	957
Indefinite-lived intangible assets:							
Trade names and trademarks				233			237
Total				$ 1,056			$ 1,194

The amortization expense associated with definite-lived intangible assets for the years ended December 31, 2021, 2020, and 2019 was $128 million, $130 million, and $138 million and is included in "Depreciation and amortization" within the consolidated statements of income (loss).

The expected future amortization expense for the Company's definite-lived intangible assets is as follows:

	2022	2023	2024	2025	2026	2027 and thereafter	Total
Expected amortization expense	$ 124	$ 121	$ 114	$ 114	$ 114	$ 236	$ 823

Year Ended December 31, 2021

For the annual impairment test performed in the fourth quarter of 2021, the estimated fair value of all reporting units with goodwill exceeded their carrying values and the estimated fair value of all indefinite-lived intangible assets exceeded their carrying values. As such, no impairment expense was recognized for the year ended December 31, 2021.

At December 31, 2021, goodwill for reporting units within the Motorparts segment, Performance Solutions segment and two reporting units in the Clear Air segment where fair value exceeds carrying value greater than 25% was $496 million, and goodwill for a reporting unit within the Clean Air segment where the fair value exceeds carrying value by less than 25% was $11 million.

Year Ended December 31, 2020
Impairment charges for goodwill and intangible assets recognized by segment consist of the following:

	Year Ended December 31, 2020			
	Motorparts	Performance Solutions	Powertrain	Total
Goodwill impairment charges	$ 70	$ 156	$ 41	$ 267
Trade names and trademarks intangible asset impairment charges	40	11	—	51
Definite-lived intangible asset impairment charges	—	65	—	65
	$ 110	$ 232	$ 41	$ 383

During the first quarter of 2020, the Company concluded it was more likely than not that the fair values of certain of its reporting units and its indefinite-lived intangible assets had declined below their carrying values as a result of the effects of the COVID-19 global pandemic on the Company's projected financial information. The Company completed a goodwill impairment analysis for four of its reporting units with goodwill in the Motorparts, Performance Solutions, and Powertrain segments. The difference between the reporting units' carrying values and fair values were recognized as impairment charges. The Company recognized $267 million in non-cash impairment charges related to its goodwill during the year ended December 31, 2020, which represented full impairments of the goodwill in one reporting unit in the Performance Solutions segment and one reporting unit in the Powertrain segment, and partial impairments of goodwill in one reporting unit in the Motorparts segment and one reporting unit in the Performance Solutions segment.

During the first quarter of 2020, the Company also completed an analysis to determine the fair value of its trade names and trademarks for its reporting units in the Motorparts and Performance Solutions segments. It was determined that their carrying values exceeded their fair values and the Company recognized $51 million in non-cash impairment charges related to these indefinite-lived intangible assets during the year ended December 31, 2020, which represented a full impairment of certain trade names and trademarks in the Motorparts segment, and a partial impairment of certain trade names and trademarks in the Motorparts and Performance Solutions segments.

As discussed in more details in Note 3, "Restructuring Charges, Net and Asset Impairments", the Company concluded impairment triggers had occurred during the first quarter of 2020 for certain long-lived asset groups within the Performance Solutions segment. As a result, the Company recorded non-cash impairment charges of $65 million related to its definite-lived intangible assets during the year ended December 31, 2020, which represented full impairments of the definite-lived intangible assets in two reporting units.

For the annual impairment test performed in the fourth quarter of 2020, the estimated fair value of all reporting units with goodwill exceeded their carrying values and the estimated fair value of all indefinite-lived intangible assets exceeded their carrying values. As such, no additional impairment expense was recognized in the fourth quarter of 2020.

Year Ended December 31, 2019
Impairment charges for goodwill and intangible assets recognized by segment consist of the following:

	Year Ended December 31, 2019			
	Motorparts	Performance Solutions	Powertrain	Total
Goodwill impairment charges	$ 21	$ 69	$ 18	$ 108
Trade names and trademarks intangible asset impairment charges	133	—	—	133
	$ 154	$ 69	$ 18	$ 241

The Company recognized goodwill impairment charges of $108 million for the year ended December 31, 2019, which consisted of the following:

- During the first quarter of 2019, the Company reorganized the reporting structure of its Aftermarket, Performance Solutions, and Motorparts segments and the underlying reporting units within those segments. The Company reassigned assets and liabilities (excluding goodwill) to the reporting units affected. Goodwill was then reassigned to the reporting units using a relative fair value approach based on the fair value of the elements transferred and the fair value of the elements remaining within the original reporting units. The Company tested goodwill for impairment on a pre-reorganization basis and determined there was no impairment for the affected reporting units. The Company also performed an impairment analysis on a post-reorganization basis and determined $60 million of goodwill was impaired for two reporting units within its Performance Solutions segment, one of which was a full impairment of the goodwill. As a result, this non-cash charge was recorded in the first quarter of 2019. Goodwill allocated to other reporting units was supported by the valuation performed at that time;
- During the third quarter of 2019, the Company finalized purchase accounting for the Federal-Mogul LLC acquisition. As a result, the final goodwill allocation was reassigned to the reorganized segments and reporting unit structure that occurred in the first quarter of 2019 using a relative fair value approach and the Company determined an incremental $9 million of goodwill was impaired for one reporting unit in its Performance Solutions segment, which continued to represent a full impairment of goodwill in that reporting unit. This non-cash charge was recorded in the third quarter of 2019; and
- As a result of the annual goodwill impairment analysis performed in the fourth quarter of 2019, the estimated fair value of one of the reporting units in the Motorparts segment was lower than its carrying value and an impairment charge of $21 million was recognized, which was a full impairment of the goodwill in that reporting unit. Additionally, the estimated fair value of one of the reporting units in the Powertrain segment was determined to be lower than the carrying value, and a partial goodwill impairment charge of $18 million was recognized. At December 31, 2019, this reporting unit has $40 million of goodwill after recognizing the impairment. This non-cash charge was recorded in the fourth quarter of 2019.

As a result of the annual indefinite-lived intangible asset analysis performed in the fourth quarter of 2019, the estimated fair value of certain trade names and trademarks within the Motorparts segment were less than their carrying values. Accordingly, non-cash impairment charges of $133 million were recognized during the year ended December 31, 2019, both of which were partial impairments.

7. Investment in Nonconsolidated Affiliates

The Company's ownership interest in affiliates accounted for under the equity method is as follows:

	At December 31	
	2021	2020
Anqing TP Goetze Piston Ring Company Limited (China)	35.7 %	35.7 %
Anqing TP Powder Metallurgy Co., Ltd (China)	20.0 %	20.0 %
Dongsuh Federal-Mogul Industrial Co. Ltd. (Korea)	50.0 %	50.0 %
Farloc Argentina SAIC Y F (Argentina)	23.9 %	23.9 %
Federal-Mogul Powertrain Otomotiv A.S. (Turkey)	50.0 %	50.0 %
Federal-Mogul TP Liner Europe Otomotiv Ltd. Sti. (Turkey)	25.0 %	25.0 %
Federal-Mogul TP Liners, Inc. (USA)	46.0 %	46.0 %
Frenos Hidraulicos Automotrices, S.A. de C.V. (Mexico)	49.0 %	49.0 %
JURID do Brasil Sistemas Automotivos Ltda. (Brazil)	19.9 %	19.9 %
KB Autosys Co., Ltd. (Korea)	20.6 %	33.6 %
Montagewerk Abgastechnik Emden GmbH (Germany)	50.0 %	50.0 %

The carrying amount of the Company's investments in its nonconsolidated affiliates accounted for under the equity method exceeded its share of the underlying net assets by $258 million and $287 million at December 31, 2021 and 2020.

The "Equity in earnings (losses) of nonconsolidated affiliates, net of tax" within the consolidated statements of income (loss) includes a non-cash reduction of $12 million for the year ended December 31, 2019, which represents amounts to recognize the basis difference between the fair value and book value of certain assets, including inventory, property, plant and equipment, and intangible assets as a result of finalizing the purchase price allocation related to Federal-Mogul LLC acquisition in 2019.

During the year ended December 31, 2021, the Company sold a portion of its investment in KB Autosys Co., Ltd. for cash proceeds of $8 million and recognized a loss on the sale of $4 million.

The following tables present summarized aggregated financial information of the Company's nonconsolidated affiliates. The amounts represent 100% of the interest in the nonconsolidated affiliates and not the Company's proportionate share:

	Year Ended December 31								
	2021			2020			2019		
Statements of Income	Otomotiv A.S.	Other	Total	Otomotiv A.S.	Other	Total	Otomotiv A.S.	Other	Total
Sales	$ 347	$ 621	$ 968	$ 285	$ 555	$ 840	$ 305	$ 630	$ 935
Gross profit	$ 102	$ 136	$ 238	$ 84	$ 115	$ 199	$ 79	$ 133	$ 212
Income from continuing operations	$ 86	$ 90	$ 176	$ 71	$ 74	$ 145	$ 63	$ 85	$ 148
Net income	$ 80	$ 78	$ 158	$ 65	$ 65	$ 130	$ 60	$ 76	$ 136

	December 31					
	2021			2020		
Balance Sheets	Otomotiv A.S.	Other	Total	Otomotiv A.S.	Other	Total
Current assets	$ 112	$ 489	$ 601	$ 167	$ 478	$ 645
Noncurrent assets	$ 166	$ 375	$ 541	$ 141	$ 321	$ 462
Current liabilities	$ 51	$ 178	$ 229	$ 29	$ 189	$ 218
Noncurrent liabilities	$ 80	$ 36	$ 116	$ 108	$ 15	$ 123

The following table is a summary of transactions with the Company's nonconsolidated affiliates:

	Year Ended December 31		
	2021	2020	2019
Net sales	$ 75	$ 89	$ 104
Purchases	$ 385	$ 320	$ 392
Royalty and other income (expense)	$ 9	$ 8	$ 10

The following table is a summary of amounts due to and from the Company's nonconsolidated affiliates:

	December 31	
	2021	2020
Receivables	$ 10	$ 17
Payables and accruals	$ 69	$ 86

8. Financial Instruments and Fair Value

The Company is exposed to market risk, such as fluctuations in foreign currency exchange rates, commodity prices, equity price risk associated with share-based compensation awards, and changes in interest rates, which may result in cash flow risks. For exposures not offset within its operations, the Company may enter into various derivative or other financial instrument transactions pursuant to its risk management policies, which prohibit holding or issuing derivative financial instruments for speculative purposes. In certain cases, the Company may or may not designate certain derivative instruments as hedges for accounting purposes. Designation of derivative instruments is performed on a transaction basis to support hedge accounting. The changes in fair value of these hedging instruments are offset in part or in whole by corresponding changes in the fair value or cash flows of the underlying exposures being hedged. The Company assesses the initial and ongoing effectiveness of its hedging relationships in accordance with its documented policy.

Market Risks

Foreign Currency Exchange Rate Risk

The Company manufactures and sells its products globally. As a result, the Company's financial results could be significantly affected by factors such as changes in foreign currency exchange rates or weak economic conditions in foreign markets in which the Company manufactures and sells its products. The Company generally tries to use natural hedges within its foreign currency activities to minimize foreign currency risk. Where natural hedges are not in place, the Company considers managing certain aspects of its foreign currency activities and larger transactions through the use of foreign currency options or forward contracts.

Concentrations of Credit Risk

Financial instruments, including cash equivalents and derivative contracts, expose the Company to counterparty credit risk for non-performance. The Company's counterparties for cash equivalents and derivative contracts are banks and financial institutions that meet the Company's requirement of high credit standing. The Company's concentration of credit risk related to derivative contracts at December 31, 2021 and 2020 is not considered material to the consolidated financial statements.

Equity Price Risk

The Company has certain cash-settled share-based incentive compensation awards that are dependent upon the Company's stock price. The related cash payouts increase as the stock price increases and decrease as the stock price decreases. The Company has entered into certain financial instruments that move in the opposite direction of the cash settlement of these awards. Based on the Company's current position, these financial instruments mitigate the market risk related to the final settlement of the cash-settled share-based incentive compensation awards. Effective in the third quarter of 2021, investment options based on the Company's stock price no longer exist under the incentive deferral plan and, at December 31, 2021, there are no deferred compensation balances correlated to the Company's stock price. Refer to "*Other Financial Instruments*" section below for additional details on these liabilities and the related financial instruments used to reduce the Company's equity price risk.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

Asset and Liability Instruments

The carrying value of cash and cash equivalents, restricted cash, short and long-term receivables, accounts payable, and short-term debt approximates fair value.

Derivative Instruments

The Company presents its derivative positions and any related material collateral under master netting agreements on a net basis.

Foreign Currency Forward Contracts

The Company enters into foreign currency forward purchase and sale contracts to mitigate its exposure to changes in exchange rates on certain intercompany and third-party trade receivables and payables and intercompany loans. The Company calculates the fair value of its foreign currency contracts using currency forward rates (level 2), to calculate forward values, and then discounts the forward values. The discount rates for all derivative contracts are based on bank deposit rates. Derivative gains and losses associated with these foreign currency forward contracts are recognized in "Cost of sales (exclusive of depreciation and amortization)" in the consolidated statements of income (loss). The fair value of these derivative instruments at December 31, 2021 and 2020 is not considered material to the consolidated financial statements.

The following table summarizes by position the notional amounts for foreign currency forward contracts at December 31, 2021, all of which mature in the next twelve months:

	Notional Amount
Long positions	$ 401
Short positions	$ 396

Other Financial Instruments
Cash-Settled Share and Index Swap Transactions
The Company has certain employee compensation arrangements, including deferred compensation and cash-settled share-based units granted under its long-term incentive plan, that are valued based on the Company's stock price. The share equivalents outstanding related to deferred compensation and cash-settled share-based awards are as follows:

	December 31	
	2021	2020
Restricted Stock Units (RSUs)	1,451,422	1,878,220
Performance Share Units (PSUs)	2,951,316	—
	4,402,738	1,878,220
Deferred compensation arrangements (a)	—	1,125,605

(a) At December 31, 2021, there are no share equivalents outstanding that are based on the Company's stock price. On a prospective basis, the alternative for employees to invest their deferred compensation into these arrangements no longer exists.

The Company has entered into financial instruments to mitigate the risk associated with both the vested and unvested portions of its cash-settled share-based incentive compensation awards and, prior to September 30, 2021, its deferred compensation liability. The number of common share equivalents under these agreements at December 31, 2021 and 2020 was 3,100,000 and 1,700,000.

These financial instruments use the Company's stock price as an observable input (level 2) in determining fair value. The estimated fair value of these financial instruments is as follows:

		December 31	
	Balance sheet classification	2021	2020
Other financial instruments in asset positions(a)	Prepayments and other current assets	$ 35	$ 1

(a) There was a cash premium of $7 million at December 31, 2020 associated with these financial instruments, which is included in "Prepayments and other current assets" in the consolidated balance sheets, and none at December 31, 2021.

The gains and losses associated with these other financial instruments are recognized in "Selling, general, and administrative" in the consolidated statements of income (loss).

Hedging Instruments
Cash Flow Hedges—Commodity Price Risk
The Company's production processes are dependent upon the supply of certain raw materials that are exposed to price fluctuations on the open market. Commodity rate price forward contracts are executed to offset a portion of the exposure to potential change in prices for raw materials. The Company monitors its commodity price risk exposures regularly to maximize the overall effectiveness of its commodity forward contracts.

The Company has designated these contracts as cash flow hedging instruments. The Company records unrecognized gains and losses in other comprehensive income (loss) ("OCI" or "OCL") and makes reclassifying adjustments into "Cost of sales (exclusive of depreciation and amortization)" within the consolidated statements of income (loss) when the underlying hedged transaction is recognized in earnings. The Company had commodity derivatives outstanding with an equivalent notional amount of $34 million and $10 million at December 31, 2021 and 2020. Substantially all of the commodity price hedge contracts mature within one year.

The Company calculates the fair value of its commodity contracts using commodity forward rates (level 2), to calculate forward values, and then discounts the forward values. The discount rates for all derivative contracts are based on bank deposit rates. The fair value of these derivative instruments at December 31, 2021 and 2020 is not considered material to the consolidated financial statements.

Net Investment Hedge—Foreign Currency Borrowings

At December 31, 2020, the Company had foreign currency denominated debt, of which €344 million or $420 million, was designated as a net investment hedge in certain foreign subsidiaries and affiliates of the Company and was included in "Long-term debt" in the consolidated balance sheets. Changes to its carrying value were included in the consolidated statements of changes in shareholders' equity in the foreign currency translation component of OCL and offset against the translation adjustments on the underlying net assets of those foreign subsidiaries and affiliates, which were also recorded in OCL. All of the outstanding foreign currency borrowings related to the net investment hedge were discharged on March 17, 2021, as a result, there are no outstanding foreign currency borrowings designated as a net investment hedge at December 31, 2021. The Company's debt instruments are discussed further in Note 9, "Debt and Other Financing Arrangements".

The following table represents the amount of gain (loss) recognized in accumulated other comprehensive income (loss) before any reclassifications into net income (loss) of derivative and non-derivative instruments designated as hedges:

	Year Ended December 31		
	2021	2020	2019
Commodity price hedge contracts designated as cash flow hedges	$ 6	$ 4	$ 1
Foreign currency borrowings designated as net investment hedges	$ —	$ (74)	$ 20

The Company estimates approximately $2 million included in OCI or OCL at December 31, 2021 will be reclassified into net income (loss) within the following twelve months. Refer to Note 16, "Shareholders' Equity" for further information.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

Assets may be measured at fair value on a nonrecurring basis. These assets include long-lived assets and intangible assets, which may be written down to fair value as a result of impairment.

Long-Lived Assets

The Company evaluates its long-lived assets for impairment whenever events or circumstances indicate the value of these long-lived asset groups are not recoverable. During the first quarter of 2020, the Company concluded certain impairment triggers had occurred for certain long-lived asset groups as a result of the effects of the COVID-19 global pandemic on the Company's projected financial information. After failing the undiscounted cash flow recoverability test, the Company estimated the fair values of these long-lived asset groups and compared them to their net carrying values. The fair value measurements related to these long-lived asset groups rely primarily on Company-specific inputs and the Company's assumptions about the use of the assets, as observable inputs are not available (level 3). To determine the fair value of the long-lived asset groups, the Company utilized an asset-based approach. The Company believes the assumptions and estimates used to determine the estimated fair values of the long-lived asset groups are reasonable; however, these estimates and assumptions are subject to a high degree of uncertainty. Due to the many variables inherent in estimating fair value, differences in assumptions could have a material effect on the results of the analyses.

As the net carrying values of the long-lived asset groups exceeded their fair values, the Company recorded long-lived asset impairment charges consisting of $65 million of definite-lived intangible assets and $455 million of property, plant and equipment, during the year ended December 31, 2020. Refer to Note 3, "Restructuring Charges, Net and Asset Impairments" for additional information on asset impairments and refer to Note 6, "Goodwill and Other Intangible Assets", for additional information on the definite-lived intangible asset impairments.

Goodwill and Indefinite-Lived Intangible Assets

During the first quarter of 2020, the Company concluded it was more likely than not that the fair values of certain of its reporting units and its trade names and trademarks had declined below their carrying values as a result of the effects of the COVID-19 global pandemic on the Company's projected financial information. The Company completed analyses to estimate the fair values of these reporting units and trade names and trademarks. The Company believes the assumptions and estimates used to determine the estimated fair value are reasonable; however, these estimates and assumptions are subject to a high degree of uncertainty. Due to the many variables inherent in estimating fair value, differences in assumptions could have a material effect on the results of the analyses.

The basis of the goodwill impairment and indefinite-lived intangible asset analyses is the Company's current forecast of its annual budget and three-year strategic plan. This includes a projection of future cash flows, which requires the Company to make significant assumptions and estimates about the extent and timing of future cash flows and revenue growth rates. These represent Company-specific inputs and assumptions about the use of the assets, as observable inputs are not available (level 3). Due to the many variables inherent in estimating fair value and the relative size of the goodwill and indefinite-lived intangible assets, differences in assumptions could have a material effect on the results of the analyses.

In the goodwill impairment analysis, for reporting units with goodwill, fair values are estimated using a combination of the income approach and market approach. The Company applies a 75% weighting to the income approach and a 25% weighting to the market approach. The most significant inputs in estimating the fair value of the Company's reporting units under the income approach are (i) projected operating margins, (ii) the revenue growth rate, and (iii) the discount rate, which is risk-adjusted based on the aforementioned inputs.

For the indefinite-lived asset impairment analysis, the fair value is based upon the prospective stream of hypothetical after-tax royalty cost savings discounted at rates that reflect the rates of return appropriate for these intangible assets. The primary inputs utilized in determining fair values of trade names and trademarks are (i) projected branded product sales, (ii) the revenue growth rate, (iii) the royalty rate, and (iv) the discount rate, which is risk-adjusted based on the projected branded sales.

Refer to Note 6, "Goodwill and Other Intangible Assets", for additional information on the goodwill and indefinite-lived intangible asset impairments.

Financial Instruments Not Carried at Fair Value

Estimated fair value of the Company's outstanding debt is as follows:

		December 31, 2021		December 31, 2020	
	Fair Value Hierarchy	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Long-term debt (including current maturities):					
Term loans and senior notes	Level 2	$ 4,998	$ 5,060	$ 5,153	$ 5,138

The fair value of the Company's public senior notes and private borrowings under its New Credit Facility, as subsequently defined in Note 9, "Debt and Other Financing Arrangements", is based on observable inputs, and any borrowings on the revolving credit facility approximate fair value. The Company also had $77 million and $180 million at December 31, 2021 and 2020 in other debt whose carrying value approximates fair value, which consists primarily of foreign debt with maturities of one year or less.

9. Debt and Other Financing Arrangements

Long-Term Debt

A summary of the Company's long-term debt obligations is set forth in the following table:

	December 31, 2021			December 31, 2020		
	Principal	Carrying Amount[a]	Effective Interest Rate	Principal	Carrying Amount[a]	Effective Interest Rate
Credit Facilities						
Revolver Borrowings						
Due 2023	$ —	$ —	— %	$ —	$ —	— %
Term Loans						
LIBOR plus 1.75% Term Loan A due 2019 through 2023[b]	1,403	1,396	2.081 %	1,530	1,520	2.876 %
LIBOR plus 3.00% Term Loan B due 2019 through 2025[c]	1,649	1,606	3.911 %	1,666	1,612	3.955 %
Senior Unsecured Notes						
$225 million of 5.375% Senior Notes due 2024[d]	225	223	5.560 %	225	223	5.609 %
$500 million of 5.000% Senior Notes due 2026[e]	500	496	5.171 %	500	494	5.219 %
Senior Secured Notes [i]						
€300 million of Euribor plus 4.875% Euro Floating Rate Notes due 2024[f]	—	—	— %	366	370	4.620 %
€350 million of 5.000% Euro Fixed Rate Notes due 2024[f]	—	—	— %	428	445	3.823 %
$500 million of 7.875% Senior Secured Notes due 2029[g]	500	490	8.049 %	500	489	8.212 %
$800 million of 5.125% Senior Secured Notes due 2029[h]	800	787	5.306 %	—	—	— %
Other debt, primarily foreign instruments[i]	26	26		24	23	
		5,024			5,176	
Less - maturities classified as current[i]		6			5	
Total long-term debt		$ 5,018			$ 5,171	

[a] Carrying amount is net of unamortized debt issuance costs and debt discounts or premiums. Total unamortized debt issuance costs were $78 million and $82 million at December 31, 2021 and 2020. Total unamortized debt discount (premium), net was $1 million and $(20) million at December 31, 2021 and 2020.

[b] Principal and interest payable in 19 consecutive quarterly installments beginning March 31, 2019. At December 31, 2021, principal and interest is payable in seven remaining quarterly installments with $43 million being paid quarterly for seven quarters and the remainder at maturity. The interest rate on Term Loan A at December 31, 2020 was LIBOR plus 2.50%.

[c] Principal and interest payable in 27 consecutive quarterly installments of $4 million beginning March 31, 2019 and the remainder at maturity.

[d] Interest payable semiannually beginning on June 30, 2015 with principal due at maturity.

[e] Interest payable semiannually beginning on January 31, 2017 with principal due at maturity.

[f] The Company satisfied and discharged all of its 4.875% Euro Floating Rate Notes due 2024 and 5.000% Euro Fixed Rate Notes due 2024 on March 17, 2021.

[g] On November 30, 2020, the Company issued $500 million aggregate principal amount of 7.875% senior secured notes due January 15, 2029. Interest payable semiannually on January 15 and July 15 of each year beginning on July 15, 2021 with principal due at maturity.

[h] On March 17, 2021, the Company issued $800 million aggregate principal amount of 5.125% senior secured notes due April 15, 2029. Interest payable semiannually on April 15 and October 15 of each year beginning on October 15, 2021 with principal due at maturity.

[i] Rank equally in right of payment to all indebtedness under the New Credit Facility (as subsequently defined).

[j] Finance lease obligations included in other debt were $13 million and $8 million at December 31, 2021 and 2020. The maturities classified as current included the current portion of the finance lease obligations of $4 million and $3 million at December 31, 2021 and 2020. Refer to Note 14, "Leases" for additional information.

The Company has excluded the required payments, due within the next twelve months, under the Term Loan A and Term Loan B facilities totaling $170 million and $17 million from current liabilities at December 31, 2021, because the Company has the intent and ability to refinance the obligations on a long-term basis by using its revolving credit facility.

The aggregate maturities applicable to the long-term debt outstanding at December 31, 2021:

	Aggregate Maturities
2022	$ 193
2023	$ 1,255
2024	$ 246
2025	$ 1,607
2026	$ 502

Short-Term Debt

The Company's short-term debt consists of the following:

	At December 31	
	2021	2020
Maturities classified as current	$ 6	$ 5
Short-term borrowings[a]	51	157
Total short-term debt	$ 57	$ 162
Weighted average interest rate on outstanding short-term borrowings at end of year	3.2 %	3.6 %

[a] Includes borrowings under both committed credit facilities and uncommitted lines of credit and similar arrangements.

Credit Facilities

Financing Arrangements

The table below shows the Company's borrowing capacity on committed credit facilities at December 31, 2021 (in billions):

	December 31, 2021	
	Term	Available[b]
Tenneco Inc. revolving credit facility [a]	2023	$ 1.4
Tenneco Inc. Term Loan A	2023	—
Tenneco Inc. Term Loan B	2025	—
Subsidiaries' credit agreements	2022-2028	—
		$ 1.4

[a] The Company is required to pay commitment fees under the revolving credit facility on the unused portion of the total commitment.

[b] At December 31, 2021, the Company had $69 million of outstanding letters of credit under the revolving credit facility, which reduces the available borrowings under the revolving credit facility. The Company also had $76 million of outstanding letters of credit under uncommitted facilities at December 31, 2021.

At December 31, 2021, the Company had liquidity of $2.3 billion comprised of $865 million of cash and $1.4 billion undrawn on its revolving credit facility. The Company had no outstanding borrowings on its revolving credit facility at December 31, 2021.

During the fourth quarter of 2021, the Company issued a $42 million letter of credit under its revolving credit facility and is included in the $69 million of total outstanding letters of credit at December 31, 2021, which reduces the available borrowings under its revolving credit facility. The letter of credit supports a 1.7 billion Mexican peso (approximately $82 million using the exchange rate at December 31, 2021) surety bond issued to the Mexican tax authority. The surety bond is required in order for the Company to enter into the judicial process to appeal a tax assessment and covers the amount of the assessment plus interest. The Company does not believe it is probable it will have to pay the assessment or related interest. The Company also received a second assessment during the fourth quarter of 2021 from the Mexican tax authority of 0.6 billion Mexican peso (approximately $28 million using the exchange rate at December 31, 2021) for a separate matter, which has not required the issuance of a surety bond at this time. The Company does not believe it is probable it will have to pay this second assessment or related interest.

At December 31, 2021 and 2020, the unamortized debt issuance costs related to the revolver of $11 million and $17 million are included in "Other assets" in the consolidated balance sheets.

Term Loans

On October 1, 2018, the Company entered into a new credit agreement with JPMorgan Chase Bank, N.A., as administrative agent and other lenders (the "New Credit Facility"), which has been amended by the first amendment, dated February 14, 2020 (the "First Amendment"), by the second amendment, dated February 14, 2020 (the "Second Amendment"), and by the third amendment, dated May 5, 2020 (the "Third Amendment"). The New Credit Facility provides $4.9 billion of total debt financing, consisting of a five-year $1.5 billion revolving credit facility, a five-year $1.7 billion term loan A facility ("Term Loan A") and a seven-year $1.7 billion term loan B facility ("Term Loan B"). During the year ended December 31, 2020, the Company paid $18 million in one-time fees in connection these amendments.

The Company and Tenneco Automotive Operating Company Inc., a wholly-owned subsidiary, are borrowers under the New Credit Facility, and the Company is the sole borrower under the Term Loan A and Term Loan B facilities. The New Credit Facility is guaranteed on a senior basis by certain material domestic subsidiaries of the Company. Drawings under the revolving credit facility may be in U.S. dollars, British pounds or euros.

The New Credit Facility is secured by substantially all domestic assets of the Company, the subsidiary guarantors, and by pledges of up to 66% of the stock of certain first-tier foreign subsidiaries. The security for the New Credit Facility is pari passu with the security for the outstanding senior secured notes of Federal-Mogul that were assumed by the Company in connection with the acquisition and the senior secured notes the Company issued on November 30, 2020 and on March 17, 2021. If any foreign subsidiary of the Company is added to the revolving credit facility as a borrower, the obligations of such foreign borrower will be secured by the assets of such foreign borrower, and also will be secured by the assets of, and guaranteed by, the domestic borrowers and domestic guarantors as well as certain foreign subsidiaries of the Company in the chain of ownership of such foreign borrower.

New Credit Facility — Interest Rates and Fees

At December 31, 2021, after giving effect to the Third Amendment, the interest rate on borrowings under the revolving credit facility and the Term Loan A facility was LIBOR plus 1.75% and will remain at LIBOR plus 1.75% for each relevant period for which the Company's consolidated net leverage ratio (as defined in the New Credit Facility) is less than 3.00 to 1 and greater than 2.50 to 1. The interest rate on borrowings under the revolving credit facility and the Term Loan A facility are subject to step down as follows:

Consolidated net leverage ratio	Interest rate
greater than 3.0 to 1	LIBOR plus 2.00%
less than 3.0 to 1 and greater than 2.5 to 1	LIBOR plus 1.75%
less than 2.5 to 1 and greater than 1.5 to 1	LIBOR plus 1.50%
less than 1.5 to 1	LIBOR plus 1.25%

The Third Amendment provides for an increase to the margin applicable to borrowings under the revolving credit facility and the Term Loan A facility at certain leverage levels as set forth below as one of several conditions for obtaining less restrictive financial maintenance covenants described below under *New Credit Facility — Other Terms and Conditions*:

Consolidated net leverage ratio	Interest rate
greater than 6.0 to 1	LIBOR plus 2.50%
less than 6.0 to 1 and greater than 4.5 to 1	LIBOR plus 2.25%

Initially, and so long as the Company's corporate family rating is Ba3 (with a stable outlook) or higher from Moody's Investors Service, Inc. ("Moody's") and BB- (with a stable outlook) or higher from Standard & Poor's Financial Services LLC ("S&P"), the interest rate on borrowings under the Term Loan B facility will be LIBOR plus 2.75%; at any time the foregoing conditions are not satisfied, the interest rate on the Term Loan B facility will be LIBOR plus 3.00%. When the Term Loan B facility is no longer outstanding and the Company and its subsidiaries have no other secured indebtedness (with certain exceptions set forth in the New Credit Facility), and upon the Company achieving and maintaining two or more corporate credit and/or corporate family ratings higher than or equal to BBB- from S&P, BBB- from Fitch Ratings Inc. ("Fitch") and/or Baa3 from Moody's (in each case, with a stable or positive outlook), the collateral under the New Credit Facility may be released. On June 3, 2019, Moody's lowered our corporate family rating to B1 and the interest rate on borrowings under the term loan B was raised to LIBOR plus 3.00%.

The New Credit Facility prescribes for an alternative method of determining interest rates in the event LIBOR is not available.

New Credit Facility — Other Terms and Conditions

The New Credit Facility contains representations and warranties, and covenants which are customary for debt facilities of this type. The Third Amendment provided relief from the financial maintenance covenants for the revolving credit facility and Term Loan A facility subject to the non-occurrence of certain covenant reset triggers ("Covenant Reset Triggers") that limit certain activities of the Company by implementing more restrictive affirmative and negative covenants, as more fully described below. After giving effect to the Third Amendment, the financial maintenance covenants for the revolving credit facility and the Term Loan A facility include (i) a requirement to have a senior secured leverage ratio (as defined in the New Credit Facility), with step-downs, as detailed in the table below; (ii) a requirement to have a consolidated net leverage ratio (as defined in the New Credit Facility), with step-downs, as follows:

(i) Senior secured net leverage ratio		(ii) Consolidated net leverage ratio	
not greater than 8.75 to 1	at December 31, 2020	not greater than 4.50 to 1	at March 31, 2020
not greater than 8.25 to 1	at March 31, 2021	not greater than 5.25 to 1	at March 31, 2022
not greater than 4.50 to 1	at June 30, 2021	not greater than 4.75 to 1	at June 30, 2022
not greater than 4.25 to 1	at September 30, 2021	not greater than 4.25 to 1	at September 30, 2022
not greater than 4.00 to 1	at December 31, 2021	not greater than 3.75 to 1	thereafter

and (iii) a requirement to maintain a consolidated interest coverage ratio (as defined in the New Credit Facility) for any period of four consecutive fiscal quarters of not less than 2.75 to 1 as of March 31, 2020, 2.00 to 1 as of June 30, 2020, 1.50 to 1 through March 31, 2021, and 2.75 to 1 thereafter.

The Company may make a one-time election to revert back to the previous financial maintenance covenants in effect immediately prior to the Third Amendment (the "Prior Financial Covenants") and terminate the applicability of the Covenant Reset Triggers upon delivery of a covenant reset certificate to the administrative agent under the New Credit Facility that attests to compliance with the Prior Financial Covenants as of the end of the relevant fiscal period ("Covenant Reset Certificate").

If a Covenant Reset Trigger occurs, the financial maintenance covenants for the revolving credit facility and the Term Loan A facility revert back to the Prior Financial Covenants, including (i) a requirement to have a consolidated net leverage ratio (as defined in the New Credit Facility), at the end of each fiscal quarter, with step-downs, as follows:

(i) Consolidated net leverage ratio	
not greater than 4.50 to 1	through March 31, 2021
not greater than 4.25 to 1	through September 30, 2021
not greater than 4.00 to 1	through March 31, 2022
not greater than 3.75 to 1	through September 30, 2022
not greater than 3.50 to 1	thereafter

and (ii) a requirement to maintain a consolidated interest coverage ratio (as defined in the New Credit Facility) for any period of four consecutive fiscal quarters of not less than 2.75 to 1.

The Covenant Reset Triggers include certain limitations on the ability of the Company and its restricted subsidiaries to, among other things, (a) incur additional indebtedness, (b) enter into additional sales and leasebacks, (c) create additional liens over their assets, (d) pay dividends or distributions to Tenneco's stockholders, (e) prepay certain unsecured indebtedness of the Company or its restricted subsidiaries (as more fully described below), (f) make additional investments, (g) dispose of material intellectual property, and (h) reinvest the proceeds of certain asset sales in the business in lieu of repaying indebtedness, each as more specifically described in the Third Amendment. These limitations are in addition to other affirmative and negative covenants (with customary exceptions, materiality qualifiers and limitations) in the New Credit Facility, including with respect to: financial reporting; payment of taxes; maintenance of existence; compliance with law and material contractual obligations; maintenance of property and insurance; inspection of property, books and records; notices of certain events; compliance with environmental laws; provision and maintenance of collateral perfection; satisfaction of the financial maintenance covenants described above; incurrence of indebtedness; permitting liens over assets; mergers, consolidations, dispositions or other fundamental transactions; dispositions and asset sales; restricted payments; investments; compliance with limitations on certain transactions with nonconsolidated affiliates; sale and leaseback transactions; changes in fiscal periods; negative pledge clauses in certain contracts; changes to lines of business; prepayments and modifications of certain subordinated indebtedness (as more fully described below); use of proceeds; transactions involving special purpose finance subsidiaries; and transactions related to effectuating a spin-off (as defined in the New Credit Facility), each as more specifically described in the New Credit Facility.

The Covenant Reset Triggers in the Third Amendment generally prohibit the Company from repaying the Senior Unsecured Notes. After giving effect to the Third Amendment, so long as no default exists under its New Credit Facility, the Company would be permitted to (i) make regularly scheduled interest and principal payments as and when due in respect of the Senior Unsecured Notes, (ii) refinance the Senior Unsecured Notes with the net cash proceeds of permitted refinancing indebtedness (as defined in the New Credit Facility); (iii) make payments in respect of the Senior Unsecured Notes in an amount equal to the net cash proceeds of qualified capital stock (as defined in the New Credit Facility) issued after May 5, 2020; (iv) convert any Senior Unsecured Notes into qualified capital stock issued after May 5, 2020; and (v) make additional payments of the Senior Unsecured Notes provided that after giving effect to such additional payments the consolidated leverage ratio would be equal to or less than 2.00 to 1 after giving effect to such additional payments. The foregoing limitations regarding repayment and refinancing of the Senior Unsecured Notes apply from the effectiveness of the Third Amendment until delivery of a Covenant Reset Certificate.

The covenants in the New Credit Facility generally prohibit the Company from repaying certain subordinated indebtedness. So long as no default exists, the Company would, under its New Credit Facility, be permitted to repay or refinance its subordinated indebtedness (i) with the net cash proceeds of permitted refinancing indebtedness (as defined in the New Credit Facility); (ii) in an amount equal to the net cash proceeds of qualified capital stock (as defined in the New Credit Facility) issued after October 1, 2018; (iii) in exchange for qualified capital stock issued after October 1, 2018; and (iv) with additional payments provided that such additional payments are capped based on a pro forma consolidated leverage ratio after giving effect to such additional payments.

Such additional payments on subordinated indebtedness (x) will not be permitted at any time the pro forma consolidated leverage ratio is greater than 2.00 to 1 after giving effect to such additional payments and (y) will be permitted in an unlimited amount at any time the pro forma consolidated leverage ratio is equal to or less than 2.00 to 1 after giving effect to such additional payments.

The New Credit Facility contains customary representations and warranties, including, as a condition to future revolver borrowings, that all such representations and warranties are true and correct, in all material respects, on the date of borrowing, including representations (with customary exceptions, materiality qualifiers and limitations) as to: existence; compliance with law; power, authority and enforceability; no violation of law or material contracts; material litigation; no default under the New Credit Facility and related documents; ownership of property, including material intellectual property; payment of material taxes; compliance with margin stock regulations; labor matters; ERISA; Investment Company Act matters; subsidiaries; use of loan proceeds; environmental matters; accuracy of information; security documents; solvency; anti-corruption laws and sanctions; and that since December 31, 2017 there has been no development or event that has had a material adverse effect on the business or financial condition of the Company and its subsidiaries, each as more specifically described in the New Credit Facility.

The New Credit Facility includes customary events of default and other provisions that could require all amounts due thereunder to become immediately due and payable, either automatically or at the option of the lenders, if the Company fails to comply with the terms of the New Credit Facility or if other customary events occur. These events of default (with customary exceptions, materiality qualifiers, limitations and grace periods) include (i) failure to pay obligations under the New Credit Facility when due; (ii) material inaccuracy of representations and warranties; (iii) failure to comply with the covenants in the New Credit Facility and related documents (as summarized above); (iv) cross-default to material indebtedness; (v) commencement of bankruptcy or insolvency proceedings; (vi) ERISA events; (vii) certain material judgments; (viii) invalidity or unenforceability of security and guarantee documents; and (ix) change of control, each as more specifically described in the New Credit Facility.

At December 31, 2021, the Company was in compliance with all the financial covenants of the New Credit Facility.

Senior Notes

At December 31, 2021, the Company had outstanding 5.375% senior unsecured notes due December 15, 2024 ("2024 Senior Notes") and 5.000% senior unsecured notes due July 15, 2026 ("2026 Senior Notes" and together with the 2024 Senior Notes, the "Senior Unsecured Notes"). The Company also had outstanding 7.875% senior secured notes due January 15, 2029 ("7.875% Senior Secured Notes") which were issued on November 30, 2020, and 5.125% senior secured notes due April 15, 2029 ("5.125% Senior Secured Notes") which were issued on March 17, 2021. The 7.875% Senior Secured Notes and 5.125% Senior Secured Notes (collectively, the "Senior Secured Notes") were outstanding at December 31, 2021.

On March 3, 2021, the Company provided notice of its intention to redeem all of the outstanding 5.000% euro denominated senior secured notes due July 15, 2024 (the "2024 Fixed Rate Secured Notes") and all of the outstanding floating rate euro denominated senior secured notes due April 15, 2024 (the "2024 Floating Rate Secured Notes" and, together with the 2024 Fixed Rate Secured Notes, the "2024 Secured Notes"). On March 17, 2021, the Company using the net proceeds of the offering of 5.125% Senior Secured Notes, together with cash on hand, satisfy and discharge each of the indentures governing the 2024 Secured Notes in accordance with their terms. As a result, the Company recorded a gain on extinguishment of debt of $8 million for the year ended December 31, 2021.

On December 14, 2020, the Company used the net proceeds from the 7.875% Senior Secured Notes offering, together with cash on hand, to redeem all of the outstanding 4.875% euro denominated senior secured notes due 2022. As a result of the redemption of the 4.875% euro denominated senior secured notes, the Company recorded a gain on extinguishment of debt of $2 million for the year ended December 31, 2020.

Senior Unsecured Notes: Under the indentures covering the Senior Unsecured Notes, the Company is permitted to redeem some or all of the outstanding Senior Unsecured Notes, at specified redemption prices that decline to par over a specified period, at any time (a) on or after December 15, 2019, in the case of the 2024 Senior Notes and (b) on or after July 15, 2021, in the case of the 2026 Senior Notes. The Company did not redeem any of the Senior Unsecured Notes during the year ended December 31, 2021.

If the Company experiences specified kinds of changes in control, the Company must offer to repurchase the Senior Unsecured Notes at 101% of the principal amount thereof plus accrued and unpaid interest. In addition, if the Company sells certain of its assets and does not apply the proceeds from the sale in a certain manner within 365 days of the sale, the Company must use such unapplied sales proceeds to make an offer to repurchase the 2024 Senior Notes at 100% of the principal amount thereof plus accrued and unpaid interest.

Senior Secured Notes: The Senior Secured Notes are secured equally and ratably by a pledge of substantially all the Company's subsidiaries' domestic assets and by pledges of up to 66% of the stock of certain first-tier foreign subsidiaries. The security for the Senior Secured Notes is pari passu with the security for the New Credit Facility.

The Company is permitted to redeem some or all of the outstanding Senior Secured Notes at specified redemption prices that decline to par over a specified period, at any time (a) on or after January 15, 2024, in the case of the 7.875% Senior Secured Notes and (b) on or after April 15, 2024 in the case of the 5.125% Senior Secured Notes. In addition, the Company may redeem the 7.875% Senior Secured Notes at any time prior to January 15, 2024 and the 5.125% Senior Secured Notes at any time prior to April 15, 2024 at a redemption price equal to 100% of the principal amount thereof plus a "make-whole premium" as set forth in the indenture. Further, the Company may also redeem up to 40% of the 5.125% Senior Secured Notes with the proceeds of certain equity offerings at any time prior to April 15, 2024 at a redemption price of 105.125% of the principal amount thereto, and the Company may redeem up to 40% of the 7.875% Senior Secured Notes with the proceeds of certain equity offerings at any time prior to January 15, 2024 at a redemption price of 107.875% of the principal amount thereto.

If the Company experiences specified kinds of changes in control, the Company must offer to repurchase the Senior Secured Notes at 101% of the principal amount thereof plus accrued and unpaid interest. In addition, if the Company sells certain of its assets and does not apply the proceeds from the sale in a certain manner within 365 days of the sale, the Company must use such unapplied proceeds to make an offer to repurchase the Senior Secured Notes at 100% of the principal amount thereof plus accrued and unpaid interest.

The Company had designated a portion of the 2024 Secured Notes as a net investment hedge of its European operations. As such, the fluctuations in foreign currency exchange rates on the value of the designated 2024 Secured Notes was recorded to cumulative translation adjustment. Refer to Note 8, "Financial Instruments and Fair Value" for further details.

Senior Unsecured Notes and Senior Secured Notes - Other Terms and Conditions
The Senior Unsecured Notes and Senior Secured Notes contain covenants that, among other things, limit the ability of the Company to create liens and its subsidiaries to create liens on their assets and enter into sale and leaseback transactions. In addition, the indentures governing the Senior Secured Notes and 2024 Senior Notes also contain covenants that limit the ability of the Company and its subsidiaries to: (i) incur additional indebtedness; (ii) pay dividends, make distributions to stockholders and repurchase stock; (iii) make investments; (iv) sell assets; (v) enter into transactions with the affiliates; and (vi) undertake mergers and consolidations.

Subject to limited exceptions, all of the Company's existing and future material domestic wholly owned subsidiaries fully and unconditionally guarantee its Senior Unsecured Notes and Senior Secured Notes on a joint and several basis. There are no significant restrictions on the ability of the subsidiaries that have guaranteed the Company's Senior Unsecured Notes and Senior Secured Notes to make distributions to the Company.

At December 31, 2021, the Company was in compliance with all of its financial covenants under the indentures governing the Senior Unsecured Notes and Senior Secured Notes.

Other Debt
Other debt consists primarily of subsidiary debt and finance lease obligations.

Factoring Arrangements
In the Company's accounts receivable factoring programs, accounts receivables are transferred in their entirety to the acquiring entities and are accounted for as a sale. The fair value of assets received as proceeds in exchange for the transfer of accounts receivable under these factoring programs approximates the fair value of such receivables. Some of these programs have deferred purchase price arrangements with the banks.

The Company is the servicer of the receivables under some of these arrangements and is responsible for performing all accounts receivable administration functions. Where the Company receives a fee to service and monitor these transferred accounts receivables, such fees are sufficient to offset the costs and as such, a servicing asset or liability is not recorded as a result of such activities.

At December 31, 2021 and 2020, the amount of accounts receivable outstanding and derecognized for factoring arrangements was $1.0 billion and $1.0 billion, of which $0.5 billion and $0.4 billion relate to accounts receivable where the Company has continuing involvement. In addition, the deferred purchase price receivable was $51 million and $51 million at December 31, 2021 and 2020.

For the years ended December 31, 2021, 2020 and 2019, proceeds from the factoring of accounts receivable qualifying as sales were $5.2 billion, $4.1 billion and $5.0 billion, of which $3.9 billion, $3.3 billion and $4.2 billion were received on accounts receivable where the Company has continuing involvement.

For the years ended December 31, 2021, 2020 and 2019, the Company's financing charges associated with the factoring of receivables, which are included in "Interest expense" in the consolidated statements of income (loss), were $19 million, $20 million and $31 million.

If the Company were not able to factor receivables under these programs, its borrowings under its revolving credit agreement might increase. These programs provide the Company with access to cash at costs that are generally favorable to alternative sources of financing and allow the Company to reduce borrowings under its revolving credit agreement.

10. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities included the following:

	December 31	
	2021	2020
Accrued rebates	$ 190	$ 191
Accrued freight	91	70
Operating lease liability	92	95
Accrued factoring payable	70	84
Non-income tax payable	69	128
Product return reserves	64	75
Restructuring liabilities	55	95
Accrued warranty	53	52
Accrued interest	41	29
Accrued professional services	40	46
Pension and postretirement benefits liability	38	43
Legal reserves	7	10
Environmental reserve	8	8
Other	409	262
	$ 1,227	$ 1,188

11. Pension Plans, Postretirement and Other Employee Benefits

Defined Contribution Plans
The Company sponsors defined contribution plans that provide Company matching contributions for eligible U.S. salaried and hourly employees. Contributions are also made to certain non-U.S. defined contribution plans. The Company recorded expense for these defined contribution plans of approximately $78 million, $77 million and $76 million for the years ended December 31, 2021, 2020 and 2019.

Defined Benefit Plans
The Company sponsors defined benefit pension plans and health care and life insurance benefits for certain employees and retirees around the world. There are also unfunded nonqualified pension plans primarily covering U.S. executives, which are frozen with respect to future benefit accruals. The funding policy for defined benefit pension plans is to contribute the minimum required by applicable laws and regulations or to directly pay benefit payments where appropriate. At December 31, 2021, all legal funding requirements had been met. The Company expects to contribute $4 million to its U.S. pension plans, $46 million to its non-U.S. pension plans, and $18 million to its other postretirement plans in 2022.

Other Benefits
The Company also provides benefits to former or inactive employees paid after employment but before retirement. The liabilities for these postemployment benefits were $82 million and $81 million at December 31, 2021 and 2020.

Significant Events
In December 2021 and 2020, the Company recognized amendments to one of its U.S. postretirement health care benefit plans for certain retirees who will receive a fixed subsidy payment to purchase health care benefits on a marketplace exchange in lieu of the original plan's medical benefits. The amendments to the plan resulted in negative plan amendments for the year ended December 31, 2021 and 2020. The Company reduced its obligation by $20 million with a corresponding decrease of $20 million in accumulated other comprehensive loss (net of taxes of $0 million) at December 31, 2021 and by $57 million with a corresponding decrease of $57 million in accumulated other comprehensive loss (net of taxes of $0 million) at December 31, 2020. The prior service credits generated by these negative plan amendments are being amortized on a straight-line basis as a reduction to net periodic postretirement benefit cost over participants' average remaining life expectancy.

During the year ended December 31, 2020, the Company paid lump sums out of certain pension plans in connection with a previously announced plant closure. These lump sums were paid out of the pension plan assets and resulted in a non-cash settlement charge of $6 million for the year ended December 31, 2020.

In September 2020, the Company renegotiated one of its collective bargaining agreements in the U.S. which eliminated health care benefits in retirement if benefits were not commenced by September 24, 2021 for participants covered by the union agreement. This amendment resulted in a non-cash curtailment gain of $21 million for the year ended December 31, 2020.

In December 2019, the Company approved an amendment for one of its U.S. postretirement benefit plans that eliminated health care and life insurance benefits in retirement for active salaried and nonunion hourly employees if benefits are not commenced by the earlier of (i) one-year from the date of separation, or (ii) July 1, 2021. In addition, the Company approved an amendment for another of its U.S. postretirement benefit plans to eliminate health care benefits for certain retirees. These actions reduced the Company's obligations by $17 million with a corresponding decrease of $13 million to accumulated other comprehensive loss (net of taxes of $4 million) at December 31, 2019 and a non-cash curtailment gain of $7 million for the year ended December 31, 2019. The $17 million is being amortized on a straight-line basis as a reduction to net periodic postretirement benefit cost over participants' average remaining service periods or remaining life expectancy.

During 2019, the Company also offered a voluntary lump sum window for one of its U.S. defined benefit pension plans to terminated vested participants that met certain eligibility criteria. These benefits were paid in December 2019 out of the pension plan assets and resulted in a non-cash settlement charge of $5 million for the year ended December 31, 2019.

The measurement date for all defined benefit plans is December 31. The following provides a reconciliation of the plans' benefit obligations, plan assets, and funded status at December 31, 2021 and 2020:

	Pension Plans				Other Postretirement Benefits Plans	
	U.S.		Non-U.S.			
	2021	2020	2021	2020	2021	2020
Change in benefit obligation:						
Benefit obligation, beginning of year	$ 1,383	$ 1,320	$ 1,122	$ 1,048	$ 237	$ 300
Service cost	2	1	26	25	—	—
Interest cost	31	41	17	18	6	9
Settlement	—	—	(5)	(17)	—	—
Administrative expenses/taxes paid	—	—	(5)	(5)	—	—
Plan amendments	—	1	—	—	(20)	(59)
Actuarial (gain)/loss	(45)	114	(39)	28	(16)	5
Other	—	—	—	2	—	—
Benefits paid	(93)	(94)	(43)	(44)	(18)	(18)
Participants' contributions	—	—	1	1	1	—
Currency rate conversion and other	—	—	(50)	66	—	—
Benefit obligation, end of year	1,278	1,383	1,024	1,122	190	237
Change in plan assets:						
Fair value of plan assets, beginning of year	1,145	1,062	571	523	—	—
Settlement	—	—	(5)	(17)	—	—
Actual return on plan assets	154	126	24	47	—	—
Administrative expenses/taxes paid	—	—	(5)	(5)	—	—
Employer contributions	4	51	41	42	17	18
Participants' contributions	—	—	1	1	1	—
Benefits paid	(93)	(94)	(43)	(44)	(18)	(18)
Other	—	—	—	2	—	—
Currency rate conversion and other	—	—	(13)	22	—	—
Fair value of plan assets, end of year	1,210	1,145	571	571	—	—
Funded status of the plans	$ (68)	$ (238)	$ (453)	$ (551)	$ (190)	$ (237)

The actuarial gain arising during the year ended December 31, 2021 is primarily attributable to the increase in discount rates and asset returns exceeding the Company's expected return on assets. The actuarial loss arising during the year ended December 31, 2020 is primarily due to a decrease in discount rates during the period, partially offset by asset returns exceeding the Company's expected return on assets.

Amounts recognized on the consolidated balance sheets consist of the following at December 31, 2021 and 2020:

	Pension Plans				Other Postretirement Benefits Plans	
	U.S.		Non-U.S.			
	2021	2020	2021	2020	2021	2020
Noncurrent assets	$ —	$ —	$ 75	$ 37	$ —	$ —
Current liabilities	(3)	(2)	(17)	(18)	(18)	(23)
Noncurrent liabilities (a)	(65)	(236)	(511)	(570)	(172)	(214)
	$ (68)	$ (238)	$ (453)	$ (551)	$ (190)	$ (237)

(a) Included in "Pension and postretirement benefits" within the consolidated balance sheets are postemployment benefits of $82 million and $81 million at December 31, 2021 and 2020 which are not included in the tables above.

Amounts recognized in accumulated other comprehensive loss for pension and postretirement benefits, pre-tax, consist of the following components at December 31, 2021 and 2020:

	Pension Plans				Other Postretirement Benefits Plans	
	U.S.		Non-U.S.			
	2021	2020	2021	2020	2021	2020
Actuarial (gain) loss	$ 144	$ 290	$ 108	$ 168	$ 14	$ 32
Prior service cost/(credit)	1	1	3	4	(109)	(99)
Total	$ 145	$ 291	$ 111	$ 172	$ (95)	$ (67)

Information for defined benefit plans with projected benefit obligations in excess of plan assets:

	Pension Plans				Other Postretirement Benefits Plans	
	2021		2020			
	U.S.	Non-U.S.	U.S.	Non-U.S.	2021	2020
Projected benefit obligation	$ 1,278	$ 645	$ 1,383	$ 743	$ 190	$ 237
Fair value of plan assets	$ 1,210	$ 117	$ 1,145	$ 155	$ —	$ —

Information for pension plans with accumulated benefit obligations in excess of plan assets:

	December 31, 2021		December 31, 2020	
	U.S.	Non-U.S.	U.S.	Non-U.S.
Projected benefit obligation	$ 1,278	$ 602	$ 1,383	$ 696
Accumulated benefit obligation	$ 1,278	$ 561	$ 1,383	$ 654
Fair value of plan assets	$ 1,210	$ 81	$ 1,145	$ 118

The accumulated benefit obligation for all pension plans is $2,247 million and $2,446 million at December 31, 2021 and 2020.

Net periodic pension and postretirement benefits costs for the years ended December 31, 2021, 2020 and 2019, consist of the following components:

	Pension Plans						Other Postretirement Benefits Plans		
	U.S.			Non-U.S.					
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Service cost	$ 2	$ 1	$ 2	$ 26	$ 25	$ 24	$ —	$ —	$ 1
Interest cost	31	41	53	17	18	24	6	9	13
Expected return on plan assets	(65)	(64)	(67)	(16)	(17)	(19)	—	—	—
Curtailment loss (gain)	—	—	—	—	—	—	—	(21)	(7)
Settlement loss	—	1	6	1	6	1	—	—	—
Net amortization:									
Actuarial loss	12	6	5	8	8	5	2	2	4
Prior service cost (credit)	—	—	—	1	—	1	(10)	(7)	(8)

Net periodic costs	$ (20)	$ (15)	$ (1)	$ 37	$ 40	$ 36	$ (2)	$ (17)	$ 3

The following assumptions were used in the accounting for the pension and other postretirement benefits plans for the years ended December 31, 2021, 2020, and 2019:

	Pension Plans						Other Postretirement Benefits Plans		
	U.S.			Non-U.S.					
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Weighted average assumptions used to determine benefit obligations:									
Discount rate	2.8 %	2.3 %	3.2 %	1.9 %	1.5 %	1.7 %	2.9 %	2.5 %	3.2 %
Rate of compensation increase	n/a	n/a	n/a	1.9 %	1.8 %	2.0 %	n/a	n/a	n/a
Interest crediting rate	4.2 %	4.2 %	4.2 %	1.8 %	1.8 %	1.8 %	n/a	n/a	n/a
Weighted average assumptions used to determine net periodic benefit cost:									
Discount rate	2.3 %	3.2 %	4.2 %	1.5 %	1.7 %	2.6 %	2.5 %	3.2 %	4.3 %
Expected long-term return on plan assets	6.2 %	6.3 %	6.3 %	2.9 %	3.5 %	4.0 %	n/a	n/a	n/a
Rate of compensation increase	n/a	n/a	n/a	1.8 %	2.0 %	2.0 %	n/a	n/a	n/a
Interest crediting rate	4.2 %	4.2 %	4.2 %	1.8 %	1.8 %	1.8 %	n/a	n/a	n/a

Estimated future benefit payments are as follows:

	Pension Plans		Other Postretirement Benefits Plans
Year	U.S.	Non-U.S.	
2022	$ 92	$ 51	$ 18
2023	$ 93	$ 48	$ 17
2024	$ 89	$ 46	$ 16
2025	$ 87	$ 48	$ 15
2026	$ 85	$ 50	$ 14
2027-2031	$ 380	$ 272	$ 61

Health Care Trend

The weighted average assumed health care cost trend rate used in determining next year's postretirement health care benefits are as follows:

	Other Postretirement Benefits Plans		
	2021	2020	2019
Initial health care cost trend rate	6.1 %	6.3 %	6.6 %
Ultimate health care cost trend rate	4.9 %	4.9 %	4.9 %
Year ultimate health care cost trend rate reached	2027	2027	2027

Long-term Rate of Return

The Company's expected return on assets is established annually through analysis of anticipated future long-term investment performance for the plan based upon the asset allocation strategy and is primarily a long-term prospective rate. An analysis was performed in December 2021 resulting in changes to the expected long-term rate of return on assets. The weighted average long-term rate of return on assets for the U.S. pension plans decreased from 6.2% at December 31, 2020 to 5.6% at December 31, 2021, primarily attributable to a change in target asset allocation strategy. The expected long-term rate of return on plan assets used in determining pension expense for non-U.S. plans is determined in a similar manner to the U.S. plans and decreased from 2.9% at December 31, 2020 to 2.7% at December 31, 2021.

Plan Assets

Certain pension plans sponsored by the Company invest in a diversified portfolio consisting of an array of asset classes that attempts to maximize returns while minimizing volatility. These asset classes include developed market equities, emerging market equities, private equity, global high quality and high yield fixed income, real estate, and absolute return strategies.

U.S. Plans: The U.S. investment strategy mitigates risk by incorporating diversification across appropriate asset classes to meet the plans' objectives. It is intended to reduce risk, provide long-term financial stability for the plan, and maintain funded levels that meet long-term plan obligations while preserving sufficient liquidity for near-term benefit payments. Risk assumed is considered appropriate for the return anticipated and consistent with the diversification of plan assets. As the funded status of the plans improved in 2021, the Company further mitigated risk by reducing plan assets allocated to equity investments and increasing plan assets allocated to fixed income investments. The Company's investment strategy for the U.S. plans currently includes a target asset allocation of 54% equity investments and 46% fixed income investments.

Non-U.S. Plans: The Company's non-U.S. plans are individually managed to different target levels depending on the investing environment in each country and the funded status of each plan, with a reduction in the allocation of assets to equity and an increase in the allocation of assets to fixed income securities at higher funded ratios. The insurance contracts guarantee a minimum rate of return. The Company has no input into the investment strategy of the assets underlying the contracts, but they are typically heavily invested in active bond markets and are highly regulated by local law.

Pension plan assets were invested in the following classes of securities:

	Percentage of Fair Market Value	
	December 31, 2021	
	U.S.	Non-U.S.
Equity securities	53 %	14 %
Fixed income securities	41 %	59 %
Insurance contracts	— %	20 %
Other	6 %	7 %

The assets of some of the Company's pension plans are invested in trusts that permit commingling of the assets of more than one employee benefit plan for investment and administrative purposes. Each of the plans participating in the trust has interests in the net assets of the underlying investment pools.

The following table presents the Company's defined benefit plan assets measured at fair value by asset class:

	Fair Value Level at December 31, 2021							
	U.S.				Non-U.S.			
Asset Category	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Investments with registered investment companies:								
Equity securities	$ 488	$ —	$ —	$ 488	$ 1	$ —	$ —	$ 1
Fixed income securities	106	—	—	106	11	—	—	11
Real estate and other	—	—	—	—	—	—	—	—
Equity securities	4	—	—	4	4	38		42
Debt securities:								
Corporate and other	—	163	—	163	—		—	—
Government	115	46	—	161	4	176	—	180
Real Estate and other	—	—	—	—	1	29	—	30
Insurance contracts	—	—	—	—	—	—	113	113
Hedge funds	—	—	11	11	—	—	—	—
Cash and equivalents	62	—	—	62	12	—	—	12
Total	$ 775	$ 209	$ 11	$ 995	$ 33	$ 243	$ 113	$ 389
Plan assets measured at net asset value								
Equity securities				$ 149				$ 31
Government debt securities				—				103
Corporate and other debt securities				66				48
Total plan assets measured at net asset value				215				182
Net plan assets				$ 1,210				$ 571

	Fair Value Level at December 31, 2020							
	U.S.				Non-U.S.			
Asset Category	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Investments with registered investment companies:								
Equity securities	$ 374	$ —	$ —	$ 374	$ 1	$ —	$ —	$ 1
Fixed income securities	140	—	—	140	12	—	—	12
Real estate and other	21	—	—	21	—	—	—	—
Equity securities	242	—	—	242	21	42	—	63
Debt securities:								
Corporate and other	—	13	—	13	10	—	—	10
Government	25	39	—	64	14	189	—	203
Real Estate and other	—	—	—	—	1	30	—	31
Insurance contracts	—	—	—	—	—	—	113	113
Hedge funds	—	—	17	17	—	—	—	—
Cash and equivalents	80	—	—	80	5	—	—	5
Total	$ 882	$ 52	$ 17	$ 951	$ 64	$ 261	$ 113	$ 438
Plan assets measured at net asset value								
Equity securities				$ 137				$ 84
Government debt securities				—				36
Corporate and other debt securities				57				13
Total plan assets measured at net asset value				194				133
Net plan assets				$ 1,145				$ 571

The Company's level 1 assets were valued using market prices based on daily NAV or prices available daily through a public stock exchange. Its level 2 assets were valued primarily using market prices, sometimes net of estimated realization expenses, and based on broker/dealer markets or in commingled funds where NAV is not available daily or publicly. For insurance contracts, the estimated surrender value of the policy was used to estimate fair market value.

The activity attributable to U.S. and non-U.S. Level 3 defined benefit pension plan investments was not significant in the years ended December 31, 2021, 2020, and 2019.

The following table contains information about significant concentrations of risk, including all individual assets that make up more than 5% of the total assets and any direct investments in Tenneco stock:

Asset Category	Fair Value Level	Fair Value	Percentage of Total Assets
2021:			
Tenneco stock	1	$ 4	0.2 %
2020:			
Tenneco stock	1	$ 4	0.2 %

12. Income Taxes

The U.S. and non-U.S. components of the Company's earnings (loss) before income taxes and noncontrolling interests are as follows:

	Year Ended December 31		
	2021	2020	2019
U.S. earnings (loss)	$ (395)	$ (884)	$ (599)
Non-U.S. earnings (loss)	677	(117)	398
Earnings (loss) before income taxes and noncontrolling interests	$ 282	$ (1,001)	$ (201)

The following table is a comparative analysis of the components of income tax expense (benefit):

	Year Ended December 31		
	2021	2020	2019
Current —			
U.S. federal	$ (4)	$ (11)	$ 8
U.S. state and local	1	1	1
Non-U.S.	173	168	161
	170	158	170
Deferred —			
U.S. federal	(1)	336	(101)
U.S. state and local	—	35	(13)
Non-U.S.	13	(70)	(37)
	12	301	(151)
Income tax expense (benefit)	$ 182	$ 459	$ 19

The following table is a reconciliation of income taxes computed at the statutory U.S. federal income tax rate (21% for 2021, 2020 and 2019) to the income tax expense (benefit) reflected in the consolidated statements of income (loss):

	Year Ended December 31		
	2021	2020	2019
Income tax expense (benefit) computed at the statutory U.S. federal income tax rate	$ 59	$ (210)	$ (42)
Increases (reductions) in income tax expense resulting from:			
Non-U.S. income taxed at different rates	17	2	8
U.S. state and local taxes on income, net of U.S. federal income tax benefit	(33)	(26)	(14)
Changes in valuation allowance for tax loss carryforwards and credits	175	605	36
Tax credits and R&D incentives	(21)	(15)	(19)
Non-U.S. earnings subject to U.S. federal income tax	69	18	12
Non-deductible expenses / non-taxable items	24	15	16
Goodwill impairment and other non-deductible impairment	—	65	22
Tax contingencies	(72)	2	(7)
Gains on transfers of subsidiaries	—	—	21
Nonconsolidated affiliates	(11)	(10)	(8)
Other	(25)	13	(6)
Income tax expense (benefit)	$ 182	$ 459	$ 19

The tax expense recorded for the year ended December 31, 2021 includes valuation allowances in U.S. federal and state, as well as certain non-U.S. jurisdictions resulting in the Company's inability to realize an income tax benefit for losses incurred. The Company has released $54 million of unrecognized tax benefits with a corresponding adjustment of $54 million to the Company's valuation allowance as a result of the conclusion of income tax examinations in the first quarter of 2021.

The tax expense recorded for the year ended December 31, 2020 included a $507 million tax expense relating to the full valuation allowance established for the U.S. deferred tax assets. The remaining $98 million of tax expense for changes in valuation allowances for deferred taxes relates to non-U.S. jurisdictions for which a reserve had been established in a previous year. During the first quarter of 2020, the Company concluded it was "more-likely-than-not" that the fair values of certain of its indefinite-lived intangible assets had declined to below their carrying values as a result of the effects of the COVID-19 global pandemic and completed a goodwill impairment analysis. As a result, the Company recorded $65 million of tax effect relating to goodwill and indefinite-lived intangible impairment.

The tax expense recorded for the year ended December 31, 2019 included tax benefits of $33 million relating to a valuation allowance release for an entity in Spain, $22 million of tax expense relating to a goodwill impairment and $21 million of tax expense relating to gains on transfers of subsidiaries for entities in China and Luxembourg.

The components of the Company's net deferred tax assets were as follows:

	December 31	
	2021	2020
Deferred tax assets —		
Tax loss carryforwards:		
U.S. federal	$ 11	$ —
U.S. state	45	34
Non-U.S.	736	630
Tax credits	305	276
Postretirement benefits other than pensions	19	19
Pensions	80	148
Payroll accruals	33	31
Property, plant and equipment	205	244
Research expense capitalized for tax	121	102
Interest expense carryforward	56	—
Intangibles	25	—
Other accruals	205	216
Total deferred tax assets before valuation allowance	1,841	1,700
Less: Valuation allowance	(1,589)	(1,428)
Total deferred tax assets	252	272
Deferred tax liabilities —		
Intangibles	—	11
Other liabilities	91	65
Total deferred tax liabilities	91	76
Net deferred tax assets	$ 161	$ 196

U.S. state tax loss carryforwards have been presented net of uncertain tax positions that, if realized, would reduce tax loss carryforwards in 2021 and 2020 by $1 million and $3 million. Additionally, non-U.S. tax loss carryforwards, have been presented net of uncertain tax positions that, if realized, would reduce tax loss carryforwards in 2021 and 2020 by $29 million and $43 million.

The Company evaluates its deferred income taxes quarterly to determine if valuation allowances are required or should be adjusted. This assessment considers, among other matters, the nature, frequency and amount of recent losses, the duration of statutory carryforward periods, and tax planning strategies. In making such judgments, significant weight is given to evidence that can be objectively verified. Due to the sudden and sharp decline in industry demand, and the temporary suspension of production at the Company's U.S. manufacturing facilities as a result of the COVID-19 global pandemic, it incurred a significant U.S. pre-tax loss for the year ended December 31, 2020. The results did not provide enough positive evidence of profitability of the U.S. operations, therefore, the realizability of the U.S. deferred tax assets was assessed. Combined with restructuring, impairment, and integration expenses, the Company had a cumulative loss for the three-year period ended December 31, 2020. The Company concluded that it was "more-likely-than-not" that it would not be able to utilize the U.S. deferred tax assets. Therefore, the Company established a full valuation allowance against the deferred tax assets in the U.S. during 2020.

The Company's U.S. operations remain in a cumulative loss for the three-year period ended December 31, 2021. Under the current tax laws, the valuation allowance will not limit the Company's ability to utilize the U.S. deferred tax assets provided it can generate sufficient future taxable income in the U.S. The Company anticipates it will continue to record a valuation allowance against the losses until such time as they are able to determine it is "more-likely-than-not" the deferred tax asset will be realized. This position is dependent on whether there will be sufficient future taxable income to realize such deferred tax assets.

As a result of the valuation allowances recorded for $1,589 million and $1,428 million at December 31, 2021 and 2020, the Company has potential tax assets that were not recognized on its consolidated balance sheets. These unrecognized tax assets resulted primarily from non-U.S. tax loss carryforwards, U.S. federal and non-U.S. tax credit carryforwards, U.S. interest expense carryforward, and U.S. federal and state net operating losses ("NOLs") that are available to reduce future tax liabilities.

The Company's state NOLs expire at various tax years from 2022 through 2041 or have unlimited carryforward potential. The Company's non-U.S. NOLs expire at various tax years from 2022 through 2050 or have unlimited carryforward potential. The Company's U.S. federal NOL has an unlimited carryforward potential.

The Company has tax credit carryforwards in various U.S. and non-U.S. jurisdictions, these tax credit carryforwards expire at various times from 2022 through 2051 or have unlimited carryforward potential.

The Company does not provide for U.S. income taxes on unremitted earnings of non-U.S. subsidiaries, except for the earnings of certain operations in China, Korea, India and Spain, as its present intention is to reinvest the unremitted earnings in the Company's non-U.S. operations. Unremitted earnings of non-U.S. subsidiaries were approximately $2.6 billion at December 31, 2021 and the Company estimated the amount of U.S. and non-U.S. income taxes that would be accrued or paid upon remittance of the assets that represent those unremitted earnings was $129 million.

Tax benefits from uncertain tax positions may be recognized when it is "more likely than not" that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits. The Company recognizes interest and penalties relating to uncertain tax positions as part of income tax expense (benefit).

A reconciliation of the Company's uncertain tax positions is as follows:

	2021	2020	2019
Uncertain tax positions —			
Balance at beginning of period	$ 208	$ 215	$ 224
Gross increases in tax positions in current period	6	4	12
Gross increases in tax positions in prior period	2	14	4
Gross decreases in tax positions in prior period	(67)	(7)	(5)
Gross decreases — settlements	—	—	(12)
Gross decreases — statute of limitations expired	(21)	(18)	(8)
Balance at end of period	$ 128	$ 208	$ 215

At December 31, 2021 and 2020, there were $44 million and $70 million of unrecognized tax benefits that if recognized would favorably affect our effective tax rate in the future.

Total interests and penalties related to uncertain tax positions recognized as part of income tax benefit was $1 million for the year ended December 31, 2021 and income tax expense was $2 million and $1 million for the years ended December 31, 2020 and 2019. At December 31, 2021 and 2020, the Company had accrued liabilities for interest and penalties of $17 million and $18 million related uncertain tax positions.

The Company's uncertain tax position at December 31, 2021 and 2020 included exposures relating to the disallowance of deductions, global transfer pricing, and various other issues. The Company released $54 million of unrecognized tax benefits with a corresponding adjustment of $54 million to the Company's valuation allowance as a result of the conclusion of income tax examinations in the first quarter of 2021. The Company believes it is reasonably possible that a decrease of up to $41 million in unrecognized tax benefits related to the expiration of U.S. and non-U.S. statute of limitations and the conclusion of income tax examinations may occur within the next twelve months.

The Company is subject to taxation in the U.S. and various state and non-U.S. jurisdictions. At December 31, 2021, the Company's tax years open to examination in primary jurisdictions are as follows:

	Open To Tax Year
United States	2012
Belgium	2018
Brazil	2017
China	2012
France	2014
Germany	2012
India	2008
Italy	2016
Mexico	2014
Poland	2016
Spain	2017
United Kingdom	2016

13. Commitments and Contingencies

Capital Commitments
The Company estimates expenditures aggregating to approximately $59 million will be required after December 31, 2021 to complete facilities and projects authorized at such date, and it has made substantial commitments in connection with these facilities and projects.

Environmental Matters
The Company is subject to a variety of environmental and pollution control laws and regulations in all jurisdictions in which it operates. The Company has been notified by the U.S. Environmental Protection Agency, other national environmental agencies, and various provincial and state agencies that it may be a potentially responsible party ("PRP") under such laws for the cost of remediating hazardous substances pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") and other national and state or provincial environmental laws. PRP designation typically requires the funding of site investigations and subsequent remedial activities. Many of the sites that are likely to be the costliest to remediate are often current or former commercial waste disposal facilities to which numerous companies sent wastes. Despite the potential joint and several liability which might be imposed on the Company under CERCLA, and some of the other laws pertaining to these sites, its share of the total waste sent to these sites generally has been small. The Company believes its exposure for liability at these sites is not material.

On a global basis, the Company has also identified certain other present and former properties at which it may be responsible for cleaning up or addressing environmental contamination, in some cases, as a result of contractual commitments and/or federal or state environmental laws. The Company is actively seeking to resolve these actual and potential statutory, regulatory, and contractual obligations.

The Company expenses or capitalizes, as appropriate, expenditures for ongoing compliance with environmental regulations. At December 31, 2021, the Company has an obligation to remediate or contribute towards the remediation of certain sites, including the sites discussed above at which it may be a PRP.

The Company's estimated share of environmental remediation costs for all these sites is recognized in the consolidated balance sheets as follows:

	December 31	
	2021	2020
Accrued expenses and other current liabilities	$ 8	$ 8
Deferred credits and other liabilities	23	26
	$ 31	$ 34

In addition to amounts described above, the Company estimates it will make expenditures for property, plant and equipment for environmental matters of approximately $9 million in 2022 and $1 million in 2023.

Based on information known to the Company from site investigations and the professional judgment of consultants, the Company has established reserves it believes are adequate for these costs. Although the Company believes these estimates of remediation costs are reasonable and are based on the latest available information, the costs are estimates, difficult to quantify based on the complexity of the issues, and are subject to revision as more information becomes available about the extent of remediation required. At some sites, the Company expects other parties will contribute to the remediation costs. In addition, certain environmental statutes provide the Company's liability could be joint and several, meaning the Company could be required to pay amounts in excess of its share of remediation costs. The financial strength of the other PRPs at these sites has been considered, where appropriate, in the determination of the estimated liability. The Company does not believe any potential costs associated with its current status as a PRP, or as a liable party at the other locations referenced herein, will be material to its consolidated financial position, results of operations, or liquidity.

At December 31, 2021 and 2020, the Company has indemnifications in place on certain of these environmental reserves, which is not considered material to its consolidated financial statements.

Other Legal Proceedings, Claims and Investigations

For many years, the Company has been and continues to be subject to lawsuits initiated by claimants alleging health problems as a result of exposure to asbestos. The Company's current docket of active and inactive cases is approximately 500 cases in the U.S. and less than 50 in Europe.

With respect to the claims filed in the U.S., the substantial majority of the claims are related to alleged exposure to asbestos in the Company's line of Walker® exhaust automotive products although a significant number of those claims appear also to involve occupational exposures sustained in industries other than automotive. A small number of claims have been asserted against one of the Company's subsidiaries by railroad workers alleging exposure to asbestos products in railroad cars. The Company believes, based on scientific and other evidence, it is unlikely that U.S. claimants were exposed to asbestos by the Company's former products and that, in any event, they would not be at increased risk of asbestos-related disease based on their work with these products. Further, many of these cases involve numerous defendants. Additionally, in many cases the plaintiffs either do not specify any, or specify the jurisdictional minimum, dollar amount for damages.

With respect to the claims filed in Europe, the substantial majority relate to occupational exposure claims brought by current and former employees of Federal-Mogul facilities in France and amounts paid out were not material. A small number of occupational exposure claims have also been asserted against Federal-Mogul entities in Italy and Spain.

As major asbestos manufacturers and/or users continue to go out of business or file for bankruptcy, the Company may experience an increased number of these claims. The Company vigorously defends itself against these claims as part of its ordinary course of business. In future periods, the Company could be subject to cash costs or charges to earnings if any of these matters are resolved unfavorably to the Company. To date, with respect to claims that have proceeded sufficiently through the judicial process, the Company has regularly achieved favorable resolutions. Accordingly, the Company presently believes that these asbestos-related claims will not have a material adverse effect on the Company's consolidated financial position, results of operations or liquidity.

The Company is also from time to time involved in other legal proceedings, claims or investigations. Some of these matters involve allegations of damages against the Company relating to environmental liabilities (including toxic tort, property damage and remediation), intellectual property matters (including patent, trademark and copyright infringement, and licensing disputes), personal injury claims (including injuries due to product failure, design or warning issues, and other product liability related matters), taxes, unclaimed property, employment matters, and commercial or contractual disputes, sometimes related to acquisitions or divestitures. Additionally, some of these matters involve allegations relating to legal compliance.

While the Company vigorously defends itself against all of these legal proceedings, claims, and investigations and takes other actions to minimize its potential exposure, in future periods, the Company could be subject to cash costs or charges to earnings if any of these matters are resolved on unfavorable terms. Although the ultimate outcome of any legal matter cannot be predicted with certainty, based on current information, including the Company's assessment of the merits of the particular claim, the Company does not expect these legal proceedings, claims or investigations currently pending against it will have any material adverse effect on its consolidated financial position, results of operations or liquidity.

Asset Retirement Obligations

The Company's primary Asset Retirement Obligation ("ARO") activities relate to the removal of hazardous building materials at its facilities. The Company records an ARO at fair value upon initial recognition when the amount is probable and can be reasonably estimated. ARO fair values are determined based on the Company's determination of what a third party would charge to perform the remediation activities, generally using a present value technique.

The Company maintains ARO liabilities in the consolidated balance sheets as follows:

	December 31	
	2021	2020
Accrued expenses and other current liabilities(a)	$ 10	$ 2
Deferred credits and other liabilities	4	12
	$ 14	$ 14

(a) Includes liabilities held for sale for $9 million at December 31, 2021, and none at December 31, 2020. Refer to Note 2, "Summary of Significant Accounting Policies", for additional information on assets and liabilities held for sale.

Warranty Matters

The Company provides warranties on some of its products. The warranty terms vary but range from one year up to limited lifetime warranties on some of its premium aftermarket products. Provisions for estimated expenses related to product warranty are made at the time products are sold or when specific warranty issues are identified with the Company's products. These estimates are established using historical information about the nature, frequency, and average cost of warranty claims. The Company believes the warranty reserve is appropriate; however, actual claims incurred could differ from the original estimates, requiring adjustments to the reserve. The reserve is included in both current and long-term liabilities on the consolidated balance sheets.

The following represents the changes in the Company's warranty accrual accounts:

	Year Ended December 31		
	2021	2020	2019
Balance at beginning of period	$ 62	$ 54	$ 45
Accruals and revisions to estimates	52	28	32
Settlements	(44)	(21)	(23)
Foreign currency	(1)	1	—
Balance at end of period	$ 69	$ 62	$ 54

14. Leases

The Company has operating and finance leases for real estate and equipment. Generally, the leases have remaining terms of one month to ten years. Leases with an initial term of 12 months or less, which do not include an option to purchase the underlying asset that the Company is reasonably certain to exercise, are not recorded on the balance sheet. The Company recognizes lease expense for these leases on a straight-line basis over the lease term.

In addition, some leases include options to terminate the lease. The Company generally negotiates these termination clauses in anticipation of any changes in market conditions; however, because a termination option requires approval from management, the Company assumes the majority of its termination options will not be exercised when determining the lease term.

Some leasing arrangements require variable payments that are dependent on usage, output, or may vary for other reasons, such as insurance and tax payments. The variable portion of lease payments is not included in the computation of the right-of-use assets or lease liabilities. Rather, variable payments, other than those dependent upon a market index or rate, are expensed when the obligation for those payments is incurred and are included in "Cost of sales (exclusive of depreciation and amortization)", "Selling, general, and administrative" and "Engineering, research, and development" within the consolidated statements of income (loss).

The Company's lease agreements do not include significant restrictions or covenants and residual value guarantees are generally not included within its operating leases.

The components of lease expense were as follows:

	Year Ended December 31		
	2021	2020	2019
Operating lease expense	$ 126	$ 122	$ 131
Finance lease expense (amortization of right-of-use assets)	5	2	1
Short-term lease expense	8	6	13
Variable lease expense	6	24	26
Sublease income	(4)	(1)	(1)
Total lease expense	$ 141	$ 153	$ 170

Other information related to leases was as follows:

	Year Ended December 31		
	2021	2020	2019
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	$ 126	$ 143	$ 160
Financing cash flows from finance leases	$ 4	$ 2	$ 1
Right-of-use assets obtained in exchange for lease obligations:			
Operating leases	$ 94	$ 98	$ 170
Finance leases	$ 6	$ 7	$ —

Supplemental balance sheet information related to leases was as follows:

	December 31	
	2021	2020
Operating leases		
Other assets	$ 319	$ 328
Accrued expenses and other current liabilities	$ 92	$ 95
Deferred credits and other liabilities	240	241
Total operating lease liabilities	$ 332	$ 336
Finance leases		
Property, plant and equipment, cost	$ 24	$ 13
Accumulated depreciation and amortization	(10)	(6)
Total finance lease right-of-use assets	$ 14	$ 7
Short-term debt, including current maturities of long-term debt	$ 4	$ 3
Long-term debt	9	5
Total finance lease liabilities	$ 13	$ 8

Maturities of lease liabilities under non-cancellable leases at December 31, 2021 were as follows:

Year ending December 31	Operating leases	Finance leases
2022	$ 100	$ 5
2023	79	4
2024	53	3
2025	37	2
2026	25	—
Thereafter	68	—
Total future undiscounted lease payments	362	14
Less: imputed interest	(30)	(1)
Total reported lease liability	$ 332	$ 13

	December 31			
	2021		2020	
	Weighted average remaining lease term (in years)	Weighted average discount rate	Weighted average remaining lease term (in years)	Weighted average discount rate
Operating leases	6.16	3.42 %	5.38	3.63 %
Finance leases	3.35	2.66 %	3.97	3.07 %

15. Share-Based Compensation

The Company's current long-term incentive compensation plan was adopted in 2021 and is known as the Tenneco Inc. 2021 Long-Term Incentive Plan ("2021 LTIP"). The types of awards that may be granted under the 2021 LTIP and its predecessor plan are common stock, stock options (both incentive and non-qualified stock options), stock appreciation rights ("SARs"), Full Value Awards (including bonus stock, stock units, restricted stock, restricted stock units ("RSUs"), deferred stock units, performance stock, and performance stock units ("PSUs")), and cash incentive awards (including long-term performance units ("LTPUs")).

Under the 2021 LTIP, each share underlying a full value award subsequently issued counts as one share against total plan availability and share-settled awards are settled through the issuance of new shares of Class A Common Stock. At December 31, 2021, up to 2.7 million shares of our common stock remain available for delivery under the 2021 LTIP.

Restricted stock awards are generally granted to directors and vest on the grant date. RSUs (both cash-settled and share-settled) are time-based service awards and generally vest according to a three-year graded vesting schedule. One-third of the award will vest on the first anniversary of the grant date, one-third of the award will vest on the second anniversary, and one-third of the award will vest on the third anniversary. The Company recognizes compensation cost on a straight-line basis for awards with service only conditions that have a graded vesting schedule. PSU (cash-settled and share-settled) awards generally have a three-year performance period and cliff vest at the end of the period based upon achievement of performance targets based upon the Company's operating performance.

The fair values of restricted stock and RSUs (cash-settled and share-settled) are determined using the average of the high and low trading price of the Company's common stock on the date of measurement. The fair value of PSUs is determined using the probability weighted factors for performance conditions combined with a Monte Carlo simulation model for market conditions.

Cash-Settled Awards
The Company grants RSUs and PSUs to certain key employees that are payable in cash. These awards are classified as liabilities and are valued based on the fair value of the award at the grant date and are remeasured at each reporting date until settlement with compensation expense being recognized in proportion to the completed requisite period up until the date of settlement. Additionally, compensation expense for PSUs is recognized ratably over the requisite service period if it is probable the performance target related to the PSUs will be achieved and subsequently adjusted if this probability assessment changes. The PSUs have the potential to pay out between zero and 200% based on performance target achievement. Cash-settled share-based compensation expense is included in "Selling, general, and administrative" expenses in the consolidated statements of income (loss).

In the first quarter of 2020, cash-settled LTPUs, with the value of each award based on cash targets, were granted. In the fourth quarter of 2020, the LTPUs were amended whereby the LTPUs were converted to PSUs and are now cash-settled share-based awards. The performance targets for the related modification were approved on February 3, 2021, with the grant date of the modified LTPUs (now PSUs) being the same date.

Total cash-settled share-based compensation expense as well as cash paid for cash-settled awards is as follows:

	Year Ended December 31		
	2021	2020	2019
Total compensation expense - cash-settled (net of tax)	$ 14	$ 2	$ 3
Cash paid for cash-settled awards	$ 9	$ 4	$ 7

The following table reflects the number of cash-settled share-based units outstanding:

	December 31	
	2021	2020
RSUs	1,451,422	1,878,220
PSUs	2,951,316	—
	4,402,738	1,878,220

At December 31, 2021 and 2020, the liability of all cash-settled RSUs was $6 million and $3 million. The liability of all cash-settled PSUs at December 31, 2021 was $10 million, and there were no outstanding cash-settled PSUs at December 31, 2020.

At December 31, 2021, $30 million in unrecognized costs on the cash-settled awards is expected to be recognized over a weighted average period of approximately two years.

Share-Settled Awards

The Company grants RSUs and PSUs to certain key employees that are payable in common stock. These awards are settled in shares upon vesting, and valued at the grant date fair value with compensation expense being recognized in proportion to the completed requisite period up until the date of settlement. Additionally, compensation expense for PSUs is recognized ratably over the requisite service period if it is probable the performance target related to the PSUs will be achieved and subsequently adjusted if this probability assessment changes. Share-settled share-based compensation expense is included in "Selling, general, and administrative" in the consolidated statements of income (loss).

Total share-settled share-based compensation expense is as follows:

	Year Ended December 31		
	2021	2020	2019
Total compensation expense - share-settled (net of tax)	$ 18	$ 13	$ 19

The following table reflects the changes in share-settled RSUs and share-settled PSUs for the twelve months ended December 31, 2021:

	Share-Settled RSUs		Share-Settled PSUs	
	Units	Weighted Avg. Grant Date Fair Value	Units	Weighted Avg. Grant Date Fair Value
Nonvested balance at beginning of period	2,118,605	$ 26.00	527,105	$ 36.37
Granted	2,132,148	10.91	—	—
Vested	(862,999)	31.86	(57,794)	49.18
Forfeited	(270,696)	15.73	(141,015)	46.14
Nonvested balance at end of period	3,117,058	$ 13.94	328,296	$ 24.72

The following table represents the total fair value of vested restricted stock, vested share-settled RSUs, and vested share-settled PSUs:

	Year Ended December 31		
	2021	2020	2019
Restricted stock	$ 1	$ 4	$ 8
Share-settled RSUs	$ 15	$ 11	$ 5
Share-settled PSUs	$ 3	$ —	$ —

At December 31, 2021, approximately $18 million of total unrecognized compensation costs is expected to be recognized on the share-settled awards over a weighted average period of approximately two years.

16. Shareholders' Equity

Common Stock

Common Stock Outstanding

The Company has authorized 175,000,000 shares ($0.01 par value) of Class A Voting Common Stock ("Class A Common Stock") at December 31, 2021 and 2020. The Company has authorized 25,000,000 shares ($0.01 par value) of Class B Non-Voting Common Stock ("Class B Common Stock") at December 31, 2021 and 2020.

Total common stock outstanding and changes in common stock issued are as follows:

	Class A Common Stock			Class B Common Stock		
	Year Ended December 31			Year Ended December 31		
	2021	2020	2019	2021	2020	2019
Shares issued at beginning of period	75,714,163	71,727,061	71,675,379	20,308,454	23,793,669	23,793,669
Issuance pursuant to benefit plans	1,021,223	640,112	113,916	—	—	—
Restricted stock forfeited and withheld for taxes	(330,652)	(138,225)	(70,672)	—	—	—
Stock options exercised	—	—	8,438	—	—	—
Class B common stock converted to Class A common stock	20,308,454	3,485,215	—	(20,308,454)	(3,485,215)	—
Shares issued at end of period	96,713,188	75,714,163	71,727,061	—	20,308,454	23,793,669
Treasury stock	14,592,888	14,592,888	14,592,888	—	—	—
Total shares outstanding	82,120,300	61,121,275	57,134,173	—	20,308,454	23,793,669

Class B Common Stock Conversion

Effective April 1, 2020, Icahn Enterprises L.P. ("IEP") and its affiliates exercised their right to convert 3,485,215 shares of the Company's Class B Common Stock into 3,485,215 shares of the Company's Class A Common Stock.

During the year ended December 31, 2021, IEP and its affiliates converted all of its remaining 20,308,454 shares of the Company's Class B Common Stock into 20,308,454 shares of Class A Common Stock.

Share Repurchase Program

We presently have no share repurchase program in place.

During 2015, the Company's Board of Directors approved a share repurchase program, authorizing it to repurchase up to $550 million of its then outstanding Class A Common Stock over a three-year period ("2015 Program"). In February 2017, the Company's Board of Directors authorized the repurchase of up to $400 million of its then outstanding Class A Common Stock over the next three years ("2017 Program"). The 2017 Program included $112 million that remained authorized under the 2015 Program. The Company generally acquires the shares through open market or privately negotiated transactions, and has historically utilized cash from operations. The repurchase program does not obligate the Company to repurchase shares within any specific time or situations. The remaining $231 million authorized for share repurchases under the 2017 Program expired at December 31, 2019. During the year ended December 31, 2019, no shares were repurchased under the 2017 Program.

Preferred Stock

The Company had 50,000,000 shares of preferred stock ($0.01 par value) authorized at both December 31, 2021 and 2020. No shares of preferred stock were issued or outstanding at those dates.

Shareholder Rights Plan

On April 15, 2020, the Board of Directors of the Company adopted a Section 382 Rights Plan (the "Rights Plan") and declared a dividend of (i) one preferred share purchase right, payable on April 27, 2020, for each share of Class A Common Stock and (ii) one preferred share purchase right, payable on April 27, 2020, for each share of Class B Common Stock, in each case, outstanding on April 27, 2020 to the stockholders of record on that date. The Rights Plan expired on October 2, 2021.

Accumulated Other Comprehensive Income (Loss)

The following represents the Company's changes in accumulated other comprehensive income (loss) by component:

	Year Ended December 31		
	2021	2020	2019
Foreign currency translation adjustment:			
Balance at beginning of period	$ (395)	$ (369)	$ (395)
Other comprehensive income (loss) before reclassifications	(76)	(26)	23
Income tax benefit (provision)	—	—	3
Balance at end of period	(471)	(395)	(369)
Defined benefit plans:			
Balance at beginning of period	(353)	(342)	(297)
Other comprehensive income (loss) before reclassifications	221	(8)	(46)
Reclassification from other comprehensive income (loss)	14	(5)	7
Income tax benefit (provision)	(8)	2	(6)
Balance at end of period	(126)	(353)	(342)
Cash flow hedges:			
Balance at beginning of year	4	—	—
Other comprehensive income (loss) before reclassifications	6	4	1
Reclassification from other comprehensive income (loss)	(8)	—	(1)
Balance at end of period	2	4	—
Accumulated other comprehensive loss at end of year	$ (595)	$ (744)	$ (711)
Other comprehensive income (loss) attributable to noncontrolling interests, net of tax	$ (7)	$ 14	$ (10)

17. Earnings (Loss) per Share

The Company computes basic earnings (loss) per share by dividing income available to common shareholders by the weighted average number of common shares outstanding. The computation of diluted earnings (loss) per share is similar to the computation of basic earnings (loss) per share, except that the Company adjusts the weighted average number of shares outstanding to include estimates of additional shares that would be issued if potentially dilutive common shares had been issued. In addition, the Company adjusts income (loss) available to common shareholders to include any changes in income or loss that would result from the assumed issuance of the dilutive common shares.

Earnings (loss) per share of common stock outstanding were computed as follows:

	Year Ended December 31		
	2021	2020	2019
Net income (loss) attributable to Tenneco Inc.	$ 35	$ (1,521)	$ (334)
Basic earnings (loss) per share —			
Average shares of common stock outstanding	82,218,480	81,378,474	80,904,060
Earnings (loss) per average share of common stock	$ 0.43	$ (18.69)	$ (4.12)
Diluted earnings (loss) per share —			
Average shares of common stock outstanding	82,218,480	81,378,474	80,904,060
Effect of dilutive securities:			
Restricted stock, RSUs and PSUs	1,381,547	—	—
Average shares of common stock outstanding including dilutive securities	83,600,027	81,378,474	80,904,060
Earnings (loss) per average share of common stock	$ 0.42	$ (18.69)	$ (4.12)
Weighted average number of antidilutive stock-based awards excluded from the calculation of diluted earnings per share	1,787,410	2,346,904	1,868,274

18. Segment and Geographic Area Information

Tenneco consists of four operating segments, Motorparts, Performance Solutions, Clean Air, and Powertrain:

- The Motorparts segment designs, manufactures, sources, markets, and distributes a broad portfolio of brand-name products in the global vehicle aftermarket while also servicing the OES market. Motorparts products are organized into categories, including shocks and struts, steering and suspension, braking, sealing, emissions control, engine, and maintenance;
- The Performance Solutions segment designs, manufactures, markets, and distributes a variety of products and systems designed to optimize the ride experience to a global OE customer base, including noise, vibration, and harshness performance materials, advanced suspension technologies, ride control, braking, and systems protection;
- The Clean Air segment designs, manufactures, and distributes a variety of products and systems designed to reduce pollution and optimize engine performance, acoustic tuning, and weight on a vehicle for light vehicle, commercial truck, and off-highway OE customers; and
- The Powertrain segment designs, manufactures, and distributes a variety of OE powertrain products for light vehicle, commercial truck, off-highway, and industrial applications to OE customers for use in new vehicle production and OES parts to support their service and distribution channels.

Costs related to other business activities, primarily corporate headquarter functions, are disclosed separately from the four operating segments as "Corporate."

In the first quarter of 2021, the Company made a change to its operating segments. This change consisted of moving a reporting unit within the Powertrain segment to the Ride Performance segment to align with a change in how the CODM allocates resources and assesses performance against the Company's key growth strategies. In addition, with this change to its segments, Ride Performance was renamed Performance Solutions. As such, prior period operating segment results and related disclosures have been conformed to reflect the Company's current operating segments.

Management uses EBITDA including noncontrolling interests as the key performance measure of segment profitability and uses the measure in its financial and operational decision-making processes, for internal reporting, and for planning and forecasting purposes to effectively allocate resources. EBITDA including noncontrolling interests is defined as earnings before interest expense, income taxes, noncontrolling interests, and depreciation and amortization. Segment assets are not presented as it is not a measure reviewed by the CODM in allocating resources and assessing performance.

EBITDA including noncontrolling interests should not be considered a substitute for results prepared in accordance with U.S. GAAP and should not be considered an alternative to net income, which is the most directly comparable financial measure to EBITDA including noncontrolling interests that is in accordance with U.S. GAAP. EBITDA including noncontrolling interests, as determined and measured by the Company, should not be compared to similarly titled measures reported by other companies.

Segment results are as follows:

	Reportable Segments						
	Motorparts	Performance Solutions	Clean Air	Powertrain	Total	Reclass & Elims	Total
Year Ended December 31, 2021							
Revenues from external customers	$ 2,991	$ 2,908	$ 8,135	$ 4,001	$ 18,035	$ —	$ 18,035
Intersegment revenues	$ 44	$ 92	$ 19	$ 193	$ 348	$ (348)	$ —
Equity in earnings of nonconsolidated affiliates, net of tax	$ 12	$ 1	$ —	$ 44	$ 57	$ —	$ 57
Year Ended December 31, 2020							
Revenues from external customers	$ 2,725	$ 2,502	$ 6,721	$ 3,431	$ 15,379	$ —	$ 15,379
Intersegment revenues	$ 31	$ 105	$ 21	$ 141	$ 298	$ (298)	$ —
Equity in earnings of nonconsolidated affiliates, net of tax	$ 9	$ 1	$ —	$ 37	$ 47	$ —	$ 47
Year Ended December 31, 2019							
Revenues from external customers	$ 3,167	$ 3,100	$ 7,121	$ 4,062	$ 17,450	$ —	$ 17,450
Intersegment revenues	$ 40	$ 158	$ —	$ 160	$ 358	$ (358)	$ —
Equity in earnings of nonconsolidated affiliates, net of tax	$ 7	$ 4	$ —	$ 32	$ 43	$ —	$ 43

Segment EBITDA including noncontrolling interests and the reconciliation to earnings (loss) before interest expense, income taxes, and noncontrolling interests are as follows:

	Year Ended December 31		
	2021	2020	2019
EBITDA including noncontrolling interests by Segments:			
Motorparts	$ 375	$ 155	$ 184
Performance Solutions	119	(634)	114
Clean Air	584	440	582
Powertrain	346	169	257
Total reportable segments	1,424	130	1,137
Corporate	(275)	(215)	(343)
Depreciation and amortization	(593)	(639)	(673)
Earnings (loss) before interest expense, income taxes, and noncontrolling interests	556	(724)	121
Interest expense	(274)	(277)	(322)
Income tax (expense) benefit	(182)	(459)	(19)
Net income (loss)	$ 100	$ (1,460)	$ (220)

The following customers each accounted for 10% or more of the Company's net sales in the last three years. The net sales to both customers were across all segments.

Customer	2021	2020	2019
General Motors Company	11 %	11 %	11 %
Ford Motor Company	10 %	10 %	10 %

	Revenues from external customers (b) Year Ended December 31			Long-lived assets (c) December 31	
	2021	2020	2019	2021	2020
United States	$ 6,159	$ 5,151	$ 6,203	$ 954	$ 1,061
China	3,219	2,817	2,377	738	713
Germany	2,202	1,793	2,227	483	532
Mexico	1,014	900	959	243	247
Poland	988	822	925	313	335
India	617	414	475	165	160
Belgium	501	437	236	47	54
United Kingdom	305	361	568	126	114
Other Foreign (a)	3,030	2,684	3,480	911	956
Consolidated	$ 18,035	$ 15,379	$ 17,450	$ 3,980	$ 4,172

(a)Revenues from external customers and long-lived assets for individual foreign countries other than China, Germany, Mexico, Poland, India, Belgium, and United Kingdom are not individually material.

(b)Revenues are attributed to countries based on the origin of sales.

(c)Long-lived assets include all long-term assets except goodwill, intangibles, and deferred tax assets.

The following table shows cash payments for property, plant and equipment by reportable segment:

	Year Ended December 31		
	2021	2020	2019
Cash payments for property, plant and equipment:			
Motorparts	$ 39	$ 23	$ 61
Performance Solutions	84	89	199
Clean Air	129	109	208
Powertrain	128	159	250
Other unallocated assets	7	14	26
Total	$ 387	$ 394	$ 744

The Other unallocated assets are comprised of software additions not included in segment information.

Disaggregation of revenue

Original Equipment

Value Added Sales

OE revenue is generated from providing OE manufacturers and servicers with products for automotive, commercial truck, off-highway, and industrial applications. Supply relationships typically extend over the life of the related vehicle, subject to interim design and technical specification revisions, and do not require the customer to purchase a minimum quantity.

Substrate/Passthrough Sales

Generally, in connection with the sale of exhaust systems to certain OE manufacturers, the Company purchases catalytic converters and diesel particulate filters or components thereof including precious metals ("substrates") on behalf of its customers which are used in the assembled system. These substrates are included in inventory and are "passed through" to the customer at cost, plus a small margin. Since the Company takes title to the substrate inventory and has responsibility for both the delivery and quality of the finished product including the substrates, the revenues and related expenses are recorded at gross amounts.

Aftermarket

Aftermarket revenue is generated from providing products for the global vehicle aftermarket to a wide range of warehouse distributors, retail parts stores, and mass merchants that distribute these products to customers ranging from professional service providers to "do-it-yourself" consumers.

Revenue from contracts with customers is disaggregated by customer type and geography, as it depicts the nature and amount of the Company's revenue that is aligned with the Company's key growth strategies. In the following table, revenue is disaggregated accordingly:

	Reportable Segments				
By Customer Type	Motorparts	Performance Solutions	Clean Air	Powertrain	Total
Year Ended December 31, 2021					
OE - Substrate	$ —	$ —	$ 4,291	$ —	$ 4,291
OE - Value add	—	2,832	3,844	4,001	10,677
Aftermarket	2,991	76	—	—	3,067
Total	$ 2,991	$ 2,908	$ 8,135	$ 4,001	$ 18,035
Year Ended December 31, 2020					
OE - Substrate	$ —	$ —	$ 3,355	$ —	$ 3,355
OE - Value add	—	2,446	3,366	3,431	9,243
Aftermarket	2,725	56	—	—	2,781
Total	$ 2,725	$ 2,502	$ 6,721	$ 3,431	$ 15,379
Year Ended December 31, 2019					
OE - Substrate	$ —	$ —	$ 3,027	$ —	$ 3,027
OE - Value add	—	3,047	4,094	4,062	11,203
Aftermarket	3,167	53	—	—	3,220
Total	$ 3,167	$ 3,100	$ 7,121	$ 4,062	$ 17,450

	Reportable Segments				
By Geography	Motorparts	Performance Solutions	Clean Air	Powertrain	Total
Year Ended December 31, 2021					
North America	$ 1,868	$ 893	$ 3,210	$ 1,226	$ 7,197
Europe, Middle East, Africa and South America	900	1,254	2,383	2,020	6,557
Asia Pacific	223	761	2,542	755	4,281
Total	$ 2,991	$ 2,908	$ 8,135	$ 4,001	$ 18,035
Year Ended December 31, 2020					
North America	$ 1,798	$ 768	$ 2,639	$ 1,078	$ 6,283
Europe, Middle East, Africa and South America	749	1,109	1,976	1,684	5,518
Asia Pacific	178	625	2,106	669	3,578
Total	$ 2,725	$ 2,502	$ 6,721	$ 3,431	$ 15,379
Year Ended December 31, 2019					
North America	$ 2,018	$ 1,008	$ 3,031	$ 1,368	$ 7,425
Europe, Middle East, Africa and South America	932	1,421	2,388	2,023	6,764
Asia Pacific	217	671	1,702	671	3,261
Total	$ 3,167	$ 3,100	$ 7,121	$ 4,062	$ 17,450

19. Related Party Transactions

IEP no longer owns 5% or more of the Company's Class A Common Stock. During the second quarter of 2021, IEP and its subsidiaries, including Icahn Automotive Group LLC, were no longer considered related parties of the Company. The Company's net sales with Icahn Automotive Group LLC, which represent net sales with IEH Auto Parts LLC and Pep Boys—Manny, Moe & Jack, were $71 million for the six months ended June 30, 2021, and $144 million and $180 million for the years ended December 31, 2020 and 2019. The Company also had royalty and other income (expense) with Icahn Automotive Group LLC and PSC Metals of $2 million for the six months ended June 30, 2021, and $5 million and $7 million for the years ended December 31, 2020 and 2019. During the year ended December 31, 2020, the Company paid an amount owed to IEP of $3 million, related to the allocation of certain tax credits.

At December 31, 2020, the Company had receivables of $47 million and payables and accruals of $9 million with Icahn Automotive Group LLC.

As part of the Federal-Mogul LLC acquisition, the Company acquired a redeemable noncontrolling interest related to a subsidiary in India. In accordance with local regulations, the Company initiated a process to make a tender offer of the shares it did not own due to the change in control triggered by the Federal-Mogul LLC acquisition. The Company entered into separate agreements with IEP subsequent to the purchase agreement whereby IEP agreed to fund and execute the tender offer for the shares on behalf of the Company. During the first quarter of 2020, the tender offer for the shares was completed. Since the transaction was funded and executed by IEP, the completion of the tender offer resulted in an adjustment to additional paid-in capital during the first quarter of 2020. Immediately following the completion of the tender offer, the shares of this noncontrolling interest not owned by the Company were no longer redeemable, or probable of becoming redeemable; therefore, the noncontrolling interest was reclassified from temporary equity to permanent equity during the first quarter of 2020. Refer to Note 2, "Summary of Significant Accounting Policies" for further information on this noncontrolling interest.

20. Subsequent Events

Proposed Merger

On February 22, 2022, the Company entered into an Agreement and Plan of Merger (the "Merger Agreement") with Pegasus Holdings III, LLC ("Parent") and Pegasus Merger Co., a wholly owned subsidiary of Parent ("Merger Sub" and together with Parent, "Buyer"). Pursuant to the terms and conditions set forth in the Merger Agreement, Merger Sub will merge with and into Tenneco (the "Merger") with Tenneco continuing as the surviving corporation of the Merger and as a wholly owned subsidiary of Parent. At the effective time of the Merger (the "Effective Time"), each share of the Company's Class A voting common stock that is issued and outstanding immediately prior to the Effective Time (other than shares to be cancelled pursuant to the Merger Agreement or shares of common stock held by holders who have made a valid demand for appraisal in accordance with Section 262 of the Delaware General Corporation Law), will be automatically converted into the right to receive $20.00 in cash, without interest.

At the Effective Time, subject to the terms and conditions set forth in the Merger Agreement, each restricted share unit award ("RSU") and each performance share unit award ("PSU") of Tenneco that is outstanding immediately prior to the Effective Time will automatically be cancelled and converted into the holder's right to receive a cash amount (subject to any applicable withholding taxes) calculated based on the per-share Merger consideration of $20.00.

The closing of the Merger is subject to various conditions, including (i) the adoption of the Merger Agreement by holders of a majority of the issued and outstanding shares of the Company's common stock; (ii) the absence of any order, injunction or other legal or regulatory restraint making illegal, enjoining or otherwise prohibiting the closing of the Merger; (iii) the expiration or early termination of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, or HSR Act and the expiration of any waiting period under other applicable competition and/or foreign laws; (iv) the accuracy of the representations and warranties contained in the Merger Agreement, subject to customary materiality qualifications; and (v) compliance with the covenants and agreements contained in the Merger Agreement as of the closing of the Merger. In addition, the obligation of Parent and Merger Sub to consummate the Merger is subject to the absence, since the date of the Merger Agreement, of a Company Material Adverse Effect (as defined in the Merger Agreement under clause (b) of such definition). The closing of the Merger is not subject to a financing condition, and Parent has obtained equity and debt financing commitments for the purpose of financing the Merger and the other transactions contemplated by the Merger Agreement.

The Company's Board of Directors and the sole member or board of directors, as applicable, of Parent and Merger Sub have each unanimously approved the Merger and the Merger Agreement. If approved by the Company's stockholders, the Merger is expected to close in the second half of 2022. Until the closing, the Company will continue to operate as an independent company.

The Company will incur certain significant costs relating to the Merger, such as legal, accounting, financial advisory, printing and other professional services fees, as well as other customary payments. In the event that the merger is terminated, the Company may also be required to pay a cash termination fee to Parent of $54 million, as required under the Merger Agreement under certain circumstances.

SCHEDULE II

TENNECO INC. AND CONSOLIDATED SUBSIDIARIES
SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS

Description	Balance at Beginning of Year	Additions: Charged to Costs and Expenses	Additions: Charged to Other Accounts	Deductions	Balance at End of Year
			(Millions)		
Allowance for Doubtful Accounts and Notes Receivable Deducted from Assets to Which it Applies:					
Year Ended December 31, 2021	$ 32	3	—	9	$ 26
Year Ended December 31, 2020	$ 28	3	1	—	$ 32
Year Ended December 31, 2019	$ 17	14	—	3	$ 28

Description	Balance at Beginning of Year	Provision Charged (Credited) to Expense	Allowance Changes (a)	Other Additions (Deductions) (b)	Balance at End of Year
			(Millions)		
Deferred Tax Assets - Valuation Allowance:					
Year Ended December 31, 2021	$ 1,428	175	96	(110)	$ 1,589
Year Ended December 31, 2020	$ 762	605	—	61	$ 1,428
Year Ended December 31, 2019	$ 554	36	—	172	$ 762

(a) The allowance changes for the year ended December 31, 2021 primarily relates to a net operating loss created by a permanent adjustment for local statutory and tax purposes in Luxembourg which was fully offset by a valuation allowance in the current year.

(b) The amount for the year ended December 31, 2021 includes the currency translation adjustment and other comprehensive income movement of pension and postretirement benefits. The amount for the year ended December 31, 2019 includes $142 million related to a local valuation adjustment due to an ownership change in a jurisdiction with a valuation allowance. Also included in these amounts are changes in foreign currency, primarily attributable to the euro, for the years ended December 31, 2021, 2020, and 2019.

ITEM 9.CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A.CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

An evaluation was carried out under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of December 31, 2021.

Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective as of December 31, 2021 to ensure that information required to be disclosed by our Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission rules and forms, and such information is accumulated and communicated to management as appropriate to allow timely decisions regarding required disclosures.

Management's Report on Internal Control Over Financial Reporting

See Item 8, "Financial Statements and Supplementary Data" for management's report on internal control over financial reporting and the report of our independent registered public accounting firm thereon.

Changes in Internal Control Over Financial Reporting

During the three months ended December 31, 2021, there were no changes in Tenneco's internal control over financial reporting (as defined in Rule 13a-15(f) and Rule 15d-15(f) under the Exchange Act) that have materially affected, or are reasonably likely to materially affect, Tenneco's internal control over financial reporting.

ITEM 9B.OTHER INFORMATION.

Effective February 22, 2022, the Board amended the Company's By-laws (the "By-laws") by adding an exclusive forum provision, which provides that, unless the Company consents in writing to the selection of another forum, (a) the Delaware Court of Chancery (or, in the event that the Chancery Court does not have jurisdiction, the federal district court for the District of Delaware or other state courts of the State of Delaware) will be the sole and exclusive forum for the following proceedings: (i) any derivative proceeding brought on behalf of the Company, (ii) any proceeding asserting a breach of a fiduciary duty owed by any director, officer or stockholder of the Company to the Company or its stockholders, (iii) any proceeding pursuant to the Delaware General Corporation Law or the Company's Amended and Restated Certificate of Incorporation or By-laws, or (iv) any proceeding asserting a claim against the Company governed by the internal affairs doctrine, and (b) the federal district courts of the United States of America will be the exclusive forum for the resolution of any complaint asserting a cause or causes of action arising under the Securities Act of 1933, as amended. Additionally, the amendments include language pursuant to which stockholders are deemed to have consented to personal jurisdiction in the Delaware Court of Chancery and to service of process on their counsel in any action initiated in violation of the forum selection provision.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS.

Not applicable.

PART III

ITEM 10.DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

The sections entitled "Election of Directors" and "Corporate Governance" in our definitive Proxy Statement for the Annual Meeting of Stockholders are incorporated herein by reference. In addition, the section entitled "Information About Our Executive Officers" of this Annual Report on Form 10-K, which appears at the end of Part I, is incorporated herein by reference.

A copy of our Code of Ethical Conduct for Financial Managers, which applies to our Chief Executive Officer, Chief Financial Officer, Controller and other key financial managers, is filed as Exhibit 14 to this Form 10-K. We have posted a copy of the Code of Ethical Conduct for Financial Managers on our Internet website at *www.tenneco.com*. We will make a copy of this code available to any person, without charge, upon written request to Tenneco Inc., 500 North Field Drive, Lake Forest, Illinois 60045, Attn: General Counsel. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K and applicable NYSE rules regarding amendments to or waivers of our Code of Ethical Conduct by posting this information on our Internet website at *www.tenneco.com*.

ITEM 11.EXECUTIVE COMPENSATION.

The sections entitled "Executive Compensation" and "Compensation Committee Report on Executive Compensation" in our definitive Proxy Statement for the Annual Meeting of Stockholders are incorporated herein by reference.

ITEM 12.SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The sections entitled "Ownership of Common Stock" and "Securities Authorized for Issuance Under Equity Compensation Plans" in our definitive Proxy Statement for the Annual Meeting of Stockholders are incorporated herein by reference.

ITEM 13.CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

The subsections entitled "The Board of Directors and its Committees" and "Transactions with Related Persons" under the section entitled "Corporate Governance" in our definitive Proxy Statement for the Annual Meeting of Stockholders are incorporated herein by reference.

ITEM 14.PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The sections entitled "Ratify Appointment of Independent Public Accountants — Audit, Audit-Related, Tax and All Other Fees" and "Ratify Appointment of Independent Public Accountants — Pre-Approval Policy" in our definitive Proxy Statement for the Annual Meeting of Stockholders are incorporated herein by reference.

PART IV

ITEM 15.EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

CONSOLIDATED FINANCIAL STATEMENTS INCLUDED IN ITEM 8

See "Index to Financial Statements of Tenneco Inc. and Consolidated Subsidiaries" set forth in Item 8, "Financial Statements and Supplementary Data" for a list of financial statements filed as part of this Report.

INDEX TO SCHEDULE INCLUDED IN ITEM 8

	Page
Schedule of Tenneco Inc. and Consolidated Subsidiaries — Schedule II — Valuation and qualifying accounts — three years ended December 31, 2021	128

SCHEDULES OMITTED AS NOT REQUIRED OR INAPPLICABLE

Schedule I Condensed financial information of registrant
Schedule III — Real estate and accumulated depreciation
Schedule IV — Mortgage loans on real estate
Schedule V — Supplemental information concerning property — casualty insurance operations

EXHIBITS

The following exhibits are filed with this Annual Report on Form 10-K for the fiscal year ended December 31, 2021, or incorporated herein by reference (exhibits designated by an asterisk are filed with the report; all other exhibits are incorporated by reference):

INDEX TO EXHIBITS

Exhibit Number		Description
*2.1	—	Agreement and Plan of Merger, dated as of February 22, 2022, by and among Pegasus Holdings III, LLC, Pegasus Merger Co., and Tenneco Inc.
3.1	—	Amended and Restated Certificate of Incorporation of Tenneco Inc. (incorporated herein by reference to Exhibit 3.1 of the registrant's Current Report on Form 8-K dated October 1 2018, File No. 1-12387).
3.2	—	By-laws of the registrant, as amended and restated effective October 1, 2018 (incorporated herein by reference to Exhibit 3.2 of the registrant's Current Report on Form 8-K dated October 1, 2018, File No. 1-12387).
3.3	—	Certificate of Designations of Series A Preferred Stock of Tenneco Inc. (incorporated herein by reference to Exhibit 3.1 of the registrant's Current Report on Form 8-K dated April 16, 2020, File No 1-12387).
3.4	—	Amendment to the By-laws of the Company, dated February 22, 2022 (incorporated herein by reference to Exhibit 3.1 of the registrant's Current Report on Form 8-K dated February 23, 2022, File No 1-12387).
4.1	—	Description of Securities (incorporated herein by reference to Exhibit 10.41 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2019, File No. 1-12387).
4.1(a)	—	The description of Tenneco's common stock, $0.01 par value, contained in Tenneco's Registration Statement on Form 10 (File No. 1-12387) originally filed with the Securities and Exchange Commission (the "Commission") on October 30, 1996, as amended by Tenneco's post-effective amendment to the Registration Statement on Form 10 filed with the Commission on October 1, 2018, is incorporated herein by reference.
4.2(a)	—	Credit Agreement, dated as of October 1, 2018, among Tenneco Inc., Tenneco Automotive Operating Company Inc., JPMorgan Chase Bank, N.A., as Administrative Agent, and the other lenders party thereto (incorporated herein by reference to Exhibit 10.01 of the registrant's Current Report on Form 8-K dated October 1, 2018, File No. 1-12387).
4.2(b)	—	Guarantee Agreement, dated as of October 1, 2018, among Tenneco Inc., the Guarantors party thereto and JPMorgan Chase Bank, N.A., as Administrative Agent (incorporated herein by reference to Exhibit 10.02 of the registrant's Current Report on Form 8-K dated October 1, 2018, File No. 1-12387).
4.2(c)	—	Collateral Agreement, dated as of October 1, 2018, among Tenneco Inc., various subsidiaries to Tenneco, Inc. party thereto and Wilmington Trust, National Association, as Collateral Trustee (incorporated herein by reference to Exhibit 10.03 of the registrant's Current Report on Form 8-K dated October 1, 2018, File No. 1-12387).
4.2(d)	—	First Amendment, dated February 14, 2020, to the Credit Agreement, dated as of October 1, 2018, by and among Tenneco Inc., Tenneco Automotive Operating Company Inc., JPMorgan Chase Bank, N.A., as administrative agent, and the other lenders party thereto (incorporated herein by reference to Exhibit 10.1 of the registrant's Current Report on Form 8-K dated February 19, 2020, File No 1-12387).
4.2(e)	—	Second Amendment, dated February 14, 2020, to the Credit Agreement, dated as of October 1, 2018, by and among Tenneco Inc., Tenneco Automotive Operating Company Inc., JPMorgan Chase Bank, N.A., as administrative agent, and the other lenders party thereto (incorporated herein by reference to Exhibit 10.2 of the registrant's Current Report on Form 8-K dated February 19, 2020, File No 1-12387).
4.2(f)	—	Third Amendment, dated May 5, 2020, to the Credit Agreement, dated as of October 1, 2018, by and among Tenneco Inc., Tenneco Automotive Operating Company Inc., J.P. Morgan Chase Bank, N.A., as administrative agent, and the other lenders party thereto (incorporated herein by reference to Exhibit 10.1 of the registrant's Current Report on Form 8-K dated May 6, 2020, File No 1-12387).
4.3	—	Indenture, dated December 5, 2014, among the registrant, various subsidiaries of the registrant and U.S, Bank National Association, as trustee (incorporated herein by reference to Exhibit 4.1 of the registrant's Current Report on Form 8-K filed December 5, 2014, File No. 1-12387).
4.4	—	First Supplemental Indenture, dated December 5, 2014, among the registrant, various subsidiaries of the registrant and U.S. Bank National Association, as trustee (incorporated herein by reference to Exhibit 4.2 of the registrant's Current Report on Form 8-K filed December 5, 2014, File No. 1-12387).

Exhibit Number		Description
4.5	—	Second Supplemental Indenture, dated as of June 13, 2016, among Tenneco Inc., the guarantors named therein and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to the registrant's Current Report on Form 8-K dated June 13, 2016, File No. 1-12387).
4.6	—	Third Supplemental Indenture, dated October 1, 2018, among Tenneco Inc., as issuer, the Guarantors party thereto and U.S. Bank National Association, as trustee (the "Trustee") (incorporated herein by reference to Exhibit 4.35 of the registrant's Current Report on Form 8-K dated October 1, 2018. File No. 1-12387).
4.7	—	Fourth Supplemental Indenture, dated October 1, 2018, among Tenneco Inc., as issuer, the Guarantors party thereto and the Trustee (incorporated herein by reference to Exhibit 4.36 of the registrant's Current Report on Form 8-K dated October 1, 2018. File No. 1-12387).
4.8	—	Fifth Supplemental Indenture, dated as of September 24, 2020, among Tenneco Inc. and DRiV Automotive Inc., and U.S. Bank National Association, as Trustee (incorporated herein by reference to Exhibit 4.9 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2020, File No. 1-12387).
4.9	—	Sixth Supplemental Indenture, dated as of September 24, 2020, among Tenneco Inc. and DRiV Automotive Inc., and U.S. Bank National Association, as Trustee (incorporated herein by reference to Exhibit 4.10 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2020, File No. 1-12387).
4.10	—	Amended and Restated Collateral Trust Agreement, dated as of April 15, 2014, among Federal-Mogul Holdings Corporation, certain of its subsidiaries and Citibank, N.A., as Collateral Trustee (incorporated herein by reference to Exhibit 4.10 of the registrant's Current Report on Form 8-K dated October 1, 2018, File No. 1-12387).
4.11	—	Collateral Trust Joinder, dated as of November 30, 2020, by Wilmington Trust, National Associate, as Trustee, and acknowledged by Wilmington Trust, National Association, as Collateral Trustee (incorporated herein by reference to Exhibit 4.31 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2020, File No. 1-12387).
4.12	—	Pari Passu Intercreditor Agreement, dated as of March 30, 2017, among Credit Suisse AG, Cayman Islands Branch, as Tranche C Term Administrative Agent for the applicable PP&E Credit Agreement Secured Parties, Citibank, N.A., as Collateral Trustee, and Wilmington Trust, National Association, as the Initial Other Authorized Representative (incorporated herein by reference to Exhibit 4.22 of the registrant's Current Report on Form 8-K dated October 1, 2018, File No. 1-12387).
4.13	—	Joinder No. 2 to Pari Passu Intercreditor Agreement, dated as of October 1, 2018, among JPMorgan Chase Bank, N.A., as Additional Senior Class Debt Representative, Wilmington Trust, National Association, as Collateral Trustee, Wilmington Trust, National Association, as Initial Other Authorized Representative, The Bank of New York Mellon, London Branch, as an Authorized Representative (incorporated herein by reference to Exhibit 4.37 of the registrant's Current Report on Form 8-K dated October 1, 2018, File No. 1-12387).
4.14	—	Joinder No. 3 to Pari Passu Intercreditor Agreement, dated as of November 30, 2020, among Wilmington Trust, National Association, as Collateral Trustee, Wilmington Trust National Association, as Initial Other Authorized Representative, The Bank of New York Mellon, London Branch, as an Authorized Representative, JPMorgan (incorporated herein by reference to Exhibit 4.38 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2020 File No. 1-12387).
4.15	—	Collateral Trustee Resignation and Appointment Agreement, dated as of February 23, 2018, among Bank of America, N.A., as Co-Collateral Trustee, successor Collateral Trustee and ABL Agent, Citibank. N.A., as Co-Collateral Trustee and resigning Collateral Trustee, Credit Suisse AG, Cayman Islands Branch, as PP&E First Lien Agent, Wilmington Trust, National Association, as PP&E First Lien Agent, The Bank of New Mellon, London Branch, as PP&E First Lien Agent, Federal-Mogul LLC and the other Loan Parties party thereto (incorporated herein by reference to Exhibit 4.33 of the registrant's Current Report on Form 8-K dated October 1, 2018, File No. 1-12387).
4.16	—	Collateral Trustee Resignation and Appointment, Joinder, Assumption and Designation Agreement, dated as of October 1, 2018, among Wilmington Trust, National Association, as Co-Collateral Trustee, successor Collateral Trustee and PP&E First Lien Agent, Bank of America, N.A., as Co-Collateral Trustee and Retiring Collateral Trustee, the Bank of New York Mellon, London Branch, as PP&E First Lien Agent, JPMorgan Chase Bank, N.A., as Authorized Agent, Tenneco Inc. and the other Loan Parties party thereto (incorporated herein by reference to Exhibit 4.34 of the registrant's Current Report on Form 8-K dated October 1, 2018, File No. 1-12387).
4.17	—	Indenture, dated November 30, 2020, by and among Tenneco Inc., the guarantors party thereto and Wilmington Trust, National Association, as trustee (incorporated herein by reference to Exhibit 4.1 of the registrant's Current Report on Form 8-K dated November 30, 2020, File No. 1-12387).

Exhibit Number		Description
4.18	—	Collateral Agreement, dated as of November 30, 2020, by Tenneco Inc. and certain of its Subsidiaries in favor of Wilmington Trust, National Association, as Collateral Trustee (incorporated herein by reference to Exhibit 4.53 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2020, File No. 1-12387).
4.19	—	The registrant is a party to other agreements for unregistered long-term debt securities, which do not exceed 10% of the registrant's total assets. The registrant agrees to furnish a copy of such agreements to the Commission upon request.
+10.1	—	Stock Ownership Plan (incorporated herein by reference to Exhibit 10.10 of the registrant's Registration Statement on Form S-4/A dated February 2, 2000).
+10.2	—	Supplemental Executive Retirement Plan (incorporated herein by reference to Exhibit 10.13 of the registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2000, File No. 1-12387).
+10.3	—	Form of Indemnity Agreement entered into between the registrant and Paul Stecko (incorporated herein by reference to Exhibit 10.29 of the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2000, File No. 1-12387).
+10.4	—	Amendment No. 1 to the Supplemental Executive Retirement Plan (incorporated herein by reference to Exhibit 10.40 of the registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2005, File No. 1-12387).
+10.5	—	Code Section 409A Amendment to Supplemental Retirement Plan (incorporated herein by reference to Exhibit 10.71 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2008, File No. 1-12387).
+10.6	—	DRiV Incorporated Supplemental Retirement Plan, dated January 1, 2020 (incorporated herein by reference to Exhibit 10.5 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2019, File No. 1-12387).
+10.7	—	Amended and Restated Tenneco Inc. Excess Benefit Plan, dated January 1, 2020 (incorporated herein by reference to Exhibit 10.35 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2019, File No. 1-12387).
+10.8	—	DRiV Inc. Excess Benefit Plan, dated December 20, 2019 and effective January1, 2020 (incorporated herein by reference to Exhibit 10.36 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2019, File No. 1-12387).
+10.9	—	Tenneco Automotive Operating Company Inc. Severance Benefit Plan and Summary Plan Description, effective as of July 20, 2018 (incorporated herein by reference to Exhibit 10.4 of the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, File No. 1-12387).
+10.10	—	Tenneco Automotive Operating Company Inc. Severance Benefit Plan and Summary Plan Description, as amended and restated effective as of April 1, 2020 (incorporated herein by reference to Exhibit 10.8 of the registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, File No. 1-12387).
+10.11	—	Tenneco Inc. Change in Control Severance Benefit Plan for Key Executives, as Amended and Restated effective December 12, 2007 (incorporated herein by reference to Exhibit 10.61 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2008, File No. 1-12387).
+10.12	—	First Amendment to Tenneco Inc. Change in Control Severance Benefit Plan for Key Executives, as Amended and Restated effective December 12, 2007 (incorporated herein by reference to Exhibit 10.3 of the registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2011, File No. 1-12387).
+10.13	—	Second Amendment to Tenneco Inc. Change in Control Severance Benefit Plan for Key Executives (incorporated by reference to Exhibit 10.1 of registrant's Current Report on form 8-K dated April 28, 2015, File No. 1.12387).
+10.14	—	Tenneco Inc. Change in Control Severance Benefit Plan for Key Executives, as Amended and Restated effective November 5, 2020 (incorporated herein by reference to Exhibit 10.7 of the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, File No. 1-12387).
+10.15	—	Tenneco Inc. Annual Incentive Plan (incorporated herein by reference to Exhibit 10.1 of the registrant's Current Report on Form 8-K filed February 9, 2018. File No. 1-12387).

Exhibit Number		Description
*+10.16	—	Tenneco Inc. Annual Incentive Plan (as amended and restated effective January 1, 2022).
+10.17	—	Tenneco Inc. 2006 Long-Term Incentive Plan (as amended and restated effective March 11, 2009) (incorporated herein by reference to Appendix A of the registrant's proxy statement on Schedule 14A, filed with the Securities and Exchange Commission on March 31, 2009, File No. 1-12387).
+10.18	—	Amended and Restated Tenneco Inc. 2006 Long-Term Incentive Plan (effective March 18, 2013) (incorporated by reference to Appendix A of the Company's Proxy Statement on Schedule 14A, filed with the Securities Exchange Commission on April 3, 2013).
+10.19	—	Amendment No. 1 to Tenneco Inc. 2006 Long-Term Incentive Plan, effective October 10, 2016 (incorporated herein by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, File No. 1-12387).
+10.20	—	Amended and Restated Tenneco Inc. 2006 Long-Term Incentive Plan adopted September 12, 2018 (incorporated by reference to Annex D of the registrant's definitive Proxy Statement dated August 2, 2018, File No. 1-12387).
+10.21	—	Amended and Restated Tenneco Inc. 2006 Long-Term Incentive Plan (effective March 10, 2020) (incorporated by reference to Appendix A of the Company's Proxy Statement on Schedule 14A, filed with the Securities Exchange Commission on April 1, 2020).
+10.22	—	Tenneco Inc. 2006 Long-Term Incentive Plan, as amended and restated effective November 5, 2020 (incorporated herein by reference to Exhibit 10.6 of the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, File No. 1-12387).
+10.23	—	Tenneco Inc. 2021 Long-Term Incentive Plan, effective May 14, 2021 (incorporated herein by reference to Appendix A of Tenneco's Definitive Proxy Statement filed on April 1, 2021).
+10.24	—	Tenneco Inc. Deferred Compensation Plan (as Amended and Restated Effective as of August 1, 2013) (incorporated by reference to Exhibit 10.6 of Tenneco Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2013, File No. 1-12387).
+10.25	—	Tenneco Inc. Incentive Deferral Plan (incorporated herein by reference to Exhibit 10.48 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2017, File No. 1-12387).
+10.26	—	Offer Letter to Brian J. Kesseler dated January 6, 2015 (incorporated herein by reference to Exhibit 10.67 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2014, File No. 1-12387).
+10.27	—	Addendum, dated July 20, 2018, to Offer Letter to Brian J. Kesseler dated January 6, 2015 (incorporated herein by reference to Exhibit 10.2 of the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, File No. 1-12387).
+10.28	—	Offer Letter to Rainer Jueckstock dated October 1, 2018 (incorporated herein by reference to Exhibit 10.32 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2019, File No. 1-12387).
+10.29	—	Offer Letter to Bradley S. Norton (incorporated herein by reference to Exhibit 10.33 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2019, File No. 1-12387).
*+10.30	—	Letter of Promotion dated April 5, 2021 to Bradley S. Norton.
+10.31	—	Offer Letter to Kevin W. Baird dated July 6, 2020 (incorporated herein by reference to Exhibit 10.1 of the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, File No. 1-12387).
+10.32	—	Restricted Stock Unit Inducement Grant Award Agreements, effective as of August 3, 2020, by and between Tenneco Inc. and Kevin W. Baird (2-year vesting) (incorporated herein by reference to Exhibit 10.2 of the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, File No. 1-12387).
+10.33	—	Restricted Stock Unit Inducement Grant Award Agreement, effective as of August 3, 2020, by and between Tenneco Inc. and Kevin W. Baird (3-year vesting) (incorporated herein by reference to Exhibit 10.3 of the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, File No. 1-12387).
+10.34	—	Offer Letter to Matti Masanovich dated July 6, 2020 (incorporated herein by reference to Exhibit 10.4 of the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, File No. 1-12387).

Exhibit Number		Description
+10.35	—	Restricted Stock Unit Inducement Grant Award Agreements, effective as of August 10, 2020, by and between Tenneco Inc. and Matti Masanovich (incorporated herein by reference to Exhibit 10.5 of the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, File No. 1-12387).
+10.36	—	Form of Non-Qualified Stock Option Agreement for Employees under Tenneco Inc. 2006 Long-Term Incentive Plan (incorporated herein by reference to Exhibit 10.3 of the registrant's Current Report on Form 8-K dated January 18, 2012. File No. 1-12387).
+10.37	—	Form of Stock Option Award Agreement under the Tenneco Inc. 2006 Long-Term Incentive Plan (awards after May 21, 2013 and before February 2017) (incorporated herein by reference to Exhibit 10.4 of the registrant's Current Report on Form 8-K filed May 21, 2013, File No. 1-12387).
+10.38	—	Form of Restricted Stock Award for Brian J. Kesseler (January 2015 replacement grant) under Tenneco Inc. 2006 Long-Term Incentive Plan (incorporated herein by reference to Exhibit 10.71 of the registrant's Annual Report on Form 10-K for the year ended December 31,2014, File No. 1-12387).
+10.39	—	Notice to Employees of Agreement Amendments and New Options for Withholding, effective October 10, 2016 (incorporated herein by reference to Exhibit 10.5 to the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, File No. 1-12387).
+10.40	—	Form of Restricted Stock Unit Award Agreement under the Tenneco Inc. 2006 Long-Term Incentive Plan (grants after 2017) (incorporated herein by reference to Exhibit 10.2 of the registrant's Current Report on Form 8-K filed February 9, 2018. File No. 1-12387).
+10.41	—	Form of Performance Share Unit Award Agreement under the Tenneco Inc. 2006 Long-Term Incentive Plan (grants after 2017) (incorporated herein by reference to Exhibit 10.3 of the registrant's Current Report on Form 8-K filed February 9, 2018. File No. 1-12387).
+10.42	—	Form of Restricted Stock Unit Agreement under Tenneco Inc. 2006 Long-Term Incentive Plan (Retention Awards) (incorporated herein by reference to Exhibit 10.6 of the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, File No. 1-12387).
+10.43	—	Form of Performance Share Unit Award Agreement under the Tenneco Inc. 2006 Long-Term Incentive Plan (grants after 2018) (incorporated herein by reference to Exhibit 10.53 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2018, File No. 1-12387).
+10.44	—	Form of Cash-Settled Long-Term Performance Unit Award Agreement under the Tenneco Inc. 2006 Long-Term Incentive Plan (for the period January 1, 2020 - December 31, 2022) (incorporated herein by reference to Exhibit 10.52 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2019, File No. 1-12387).
+10.45	—	Form of Cash-Settled Restricted Stock Unit Award Agreement under the Tenneco Inc. 2006 Long-Term Incentive Plan (for awards commencing after February 18, 2020) (incorporated herein by reference to Exhibit 10.53 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2019, File No. 1-12387).
+10.46	—	Form of Restricted Stock Unit Award Agreement under the Tenneco Inc. 2006 Long-Term Incentive Plan (for awards commencing after February 18, 2020) (incorporated herein by reference to Exhibit 10.54 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2019, File No. 1-12387).
+10.47	—	Form of Amended and Restated Cash-Settled Long-Term Performance Share Unit Award Agreement under the Tenneco Inc. 2006 Long-Term Incentive Plan (for periods commencing after January 1, 2020) (incorporated herein by reference to Exhibit 10.8 of the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, File No. 1-12387).
+10.48	—	Cash-Settled Restricted Stock Unit Retention Award Agreements, effective as of August 3, 2020, by and between Tenneco Inc. and Brian J. Kesseler (incorporated herein by reference to Exhibit 10.1 of the registrant's Current Report on Form 8-K filed December 9, 2020. File No. 1-12387).
+10.49	—	Form of Cash-Settled Performance Share Unit Award Agreement under the Tenneco Inc. 2006 Long-Term Incentive Plan (for the period January 1, 2021 – December 31, 2023) (incorporated herein by reference from Exhibit 10.65 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2020, File No. 1-12387).
+10.50	—	Form of Restricted Stock Unit Award Agreement under the Tenneco Inc. 2006 Long-Term Incentive Plan (for the periods commencing after January 1, 2021) (incorporated herein by reference from Exhibit 10.66 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2020, File No. 1-12387).

Exhibit Number		Description
+10.51	—	Form of Cash-Settled Restricted Stock Unit Award Agreement under the Tenneco Inc. 2021 Long-Term Incentive Plan (for awards commencing after May 14, 2021) (incorporated herein by reference to Exhibit 10.2 of the registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, File No. 1-12387).
+10.52	—	Form of Stock-Settled Restricted Stock Unit Award Agreement under the Tenneco Inc. 2021 Long-Term Incentive Plan (for awards commencing after May 14, 2021) (incorporated herein by reference to Exhibit 10.3 of the registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, File No. 1-12387).
*+10.53	—	Form of Cash-Settled Performance Share Unit Award Agreement under the Tenneco Inc. 2021 Long-Term Incentive Plan (for awards commencing after May 14, 2021).
*+10.54	—	Form of Stock-Settled Performance Share Unit Award Agreement under the Tenneco Inc. 2021 Long-Term Incentive Plan (for awards commencing after May 14, 2021).
11	—	None.
13	—	None.
14	—	Tenneco Inc. Code of Ethical Conduct for Financial Managers (incorporated herein by reference from Exhibit 99.3 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2002, File No. 1-12387).
16	—	None.
18	—	None.
*21	—	List of Subsidiaries of Tenneco Inc.
22	—	List of Guarantor Subsidiaries (incorporated herein by reference from Exhibit 22 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2020, File No. 1-12387).
*23	—	Consent of PricewaterhouseCoopers LLP.
*31.1	—	Certification of Brian J. Kesseler under Section 302 of the Sarbanes-Oxley Act of 2002.
*31.2	—	Certification of Matti Masanovich under Section 302 of the Sarbanes-Oxley Act of 2002.
*32.1	—	Certification of Brian J. Kesseler and Matti Masanovich under Section 906 of the Sarbanes-Oxley Act of 2002.
33	—	None.
34	—	None.
35	—	None.
99	—	None.
100	—	None.
101	—	None.
*101.INS	—	XBRL Instance Document.
*101.SCH	—	XBRL Taxonomy Extension Schema Document.
*101.CAL	—	XBRL Taxonomy Extension Calculation Linkbase Document.
*101.DEF	—	XBRL Taxonomy Extension Definition Linkbase Document.
*101.LAB	—	XBRL Taxonomy Extension Label Linkbase Document.
*101.PRE	—	XBRL Taxonomy Extension Presentation Linkbase Document.

* Filed herewith.

\+ Indicates a management contract or compensatory plan or arrangement.

ITEM 16.FORM 10-K SUMMARY.

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TENNECO INC.

By /s/ BRIAN J. KESSELER
Brian J. Kesseler
Chief Executive Officer

Date: February 24, 2022

Pursuant to the requirements of the Securities Exchange Act of 1934 this report has been signed by the following persons in the capacities indicated on February 24, 2022.

Signature	Title
/s/ Dennis J. Letham Dennis J. Letham	Chairman and Director
/s/ BRIAN J. KESSELER Brian J. Kesseler	Chief Executive Officer and Director (principal executive officer)
/s/ MATTI MASANOVICH Matti Masanovich	Executive Vice President and Chief Financial Officer (principal financial officer)
/s/ JOHN S. PATOUHAS John S. Patouhas	Vice President and Chief Accounting Officer (principal accounting officer)
/s/ Roy V. Armes Roy V. Armes	Director
/s/ Thomas C. Freyman Thomas C. Freyman	Director
/s/ Denise Gray Denise Gray	Director
/s/ Michelle A. Kumbier Michelle A. Kumbier	Director
/s/ James S. Metcalf James S. Metcalf	Director
/s/ Aleksandra A. Miziolek Aleksandra A. Miziolek	Director
/s/ Charles K. Stevens III Charles K. Stevens III	Director
/s/ John S. Stroup John S. Stroup	Director
/s/ Jane L. Warner Jane L. Warner	Director

Exhibit 2.1

AGREEMENT AND PLAN OF MERGER

by and among

PEGASUS HOLDINGS III, LLC,

PEGASUS MERGER CO.

and

TENNECO INC.

Dated as of February 22, 2022

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Exhibit A Form of Certificate of Incorporation of the Surviving Corporation
Exhibit B Form of Bylaws of the Surviving Corporation

AGREEMENT AND PLAN OF MERGER

This AGREEMENT AND PLAN OF MERGER, dated as of February 22, 2022 (this "Agreement"), is made by and among Pegasus Holdings III, LLC, a Delaware limited liability company ("Parent"), Pegasus Merger Co., a Delaware corporation and a wholly owned subsidiary of Parent ("Merger Sub"), and Tenneco Inc., a Delaware corporation (the "Company"). All capitalized terms used in this Agreement shall have the meanings assigned to such terms in Section 8.1 or as otherwise defined elsewhere in this Agreement unless the context clearly indicates otherwise.

RECITALS

A. The Company, Parent and Merger Sub desire to effect the merger of Merger Sub with and into the Company, with the Company continuing as the surviving corporation (the "Merger") on the terms and subject to the conditions set forth in this Agreement and in accordance with the General Corporation Law of the State of Delaware, as amended (the "DGCL"), pursuant to which, except as otherwise provided in Section 2.1, each share of Class A voting common stock, par value $0.01 per share, of the Company (each, a "Share" and, collectively, the "Shares") issued and outstanding immediately prior to the Effective Time shall be converted into the right to receive the Merger Consideration.

B. The Board of Directors of Merger Sub has, upon the terms and subject to the conditions set forth herein, approved and declared it advisable for Merger Sub to enter into this Agreement and consummate the transactions contemplated hereby, including the Merger.

C. The sole member of Parent has, upon the terms and subject to the conditions set forth herein, approved this Agreement and the transactions contemplated hereby, including the Merger, and Parent, as the sole stockholder of Merger Sub, has duly executed and delivered to Merger Sub and the Company a written consent, to be effective by its terms immediately following execution of this Agreement, adopting this Agreement.

D. The Board of Directors of the Company (the "Company Board") has, upon the terms and subject to the conditions set forth herein, (i) determined that the transactions contemplated by this Agreement, including the Merger, are advisable, fair to and in the best interests of the Company and its stockholders, (ii) approved, adopted and declared advisable this Agreement and the transactions contemplated hereby, including the Merger, (iii) directed that this Agreement be submitted to the stockholders of the Company for its adoption, and (iv) recommended that the Company's stockholders adopt this Agreement.

E. Concurrently with the execution of this Agreement, and as a condition and inducement to the Company's willingness to enter into this Agreement, Apollo Investment Fund IX, L.P., Apollo Overseas Partners (Delaware) IX, L.P., Apollo Overseas Partners (Delaware 892) IX, L.P., Apollo Overseas Partners IX, L.P. and Apollo Overseas Partners (Lux) IX, SCSp (collectively, the "Guarantors"), are entering into a limited guaranty (the "Guaranty"), pursuant to which, subject to the terms and conditions contained therein, the Guarantors are guaranteeing certain obligations of Parent and Merger Sub in connection with this Agreement.

F.Parent, Merger Sub and the Company desire to make certain representations, warranties, covenants and agreements in connection with the Merger and also to prescribe various conditions to the Merger.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing, and the covenants, premises, representations and warranties and agreements contained in this Agreement and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, and intending to be legally bound, the parties to this Agreement agree as follows:

ARTICLE 1
THE MERGER

1.1 The Merger.

(a)Upon the terms and subject to the conditions set forth in this Agreement, and in accordance with the DGCL, at the Effective Time, Merger Sub shall be merged with and into the Company. As a result of the Merger, the separate corporate existence of Merger Sub shall cease, and the Company shall continue as the surviving corporation of the Merger (the "Surviving Corporation"). The Merger shall be effected pursuant to the DGCL and shall have the effects set forth in this Agreement and the applicable provisions of the DGCL. Without limiting the generality of the foregoing, at the Effective Time, by virtue of the Merger and without the necessity of further action by the Company or any other Person, all of the property, rights, privileges, immunities, powers and franchises of the Company and Merger Sub shall vest in the Surviving Corporation, and all of the debts, liabilities and duties of the Company and Merger Sub shall become the debts, liabilities and duties of the Surviving Corporation. The Merger and other transactions contemplated by this Agreement are referred to herein as the "Transactions."

(b)At the Effective Time, by virtue of the Merger and without the necessity of further action by the Company or any other Person, the certificate of incorporation of the Surviving Corporation shall be amended so as to read in its entirety in the form set forth as Exhibit A hereto, and as so amended, shall be the certificate of incorporation of the Surviving Corporation until thereafter changed or amended as provided therein or by applicable Law (subject to Section 5.9). In addition, the Company and the Surviving Corporation shall take all necessary action such that, at the Effective Time, the bylaws of the Surviving Corporation shall be amended so as to read in its entirety in the form set forth as Exhibit B hereto, and as so amended shall be the bylaws of the Surviving Corporation until thereafter changed or amended as provided therein or by applicable Law (subject to Section 5.9).

(c)At the Effective Time, by virtue of the Merger and without the necessity of further action by the Company or any other Person, the directors of Merger Sub immediately prior to the Effective Time or such other individuals designated by Parent as of the Effective Time shall become the directors of the Surviving Corporation, each to hold office, from and after the Effective Time, in accordance with the certificate of incorporation and bylaws of the Surviving Corporation until their respective successors shall have been duly elected,

designated or qualified, or until their earlier death, resignation or removal in accordance with the certificate of incorporation and bylaws of the Surviving Corporation. The officers of the Company immediately prior to the Effective Time, from and after the Effective Time, shall continue as the officers of the Surviving Corporation, each to hold office in accordance with the certificate of incorporation and bylaws of the Surviving Corporation until their respective successors shall have been duly elected, designated or qualified, or until their earlier death, resignation or removal in accordance with the certificate of incorporation and bylaws of the Surviving Corporation.

(d)If, at any time after the Effective Time, the Surviving Corporation shall determine, or shall be advised, that any deeds, bills of sale, instruments of conveyance, assignments, assurances or any other actions or things are necessary or desirable to vest, perfect or confirm of record or otherwise in the Surviving Corporation its right, title or interest in, to or under any of the rights, properties or assets of either of the Company or Merger Sub acquired or to be acquired by the Surviving Corporation as a result of, or in connection with, the Merger or otherwise to carry out this Agreement, then the officers and directors of the Surviving Corporation shall be authorized to execute and deliver, in the name and on behalf of either the Company or Merger Sub, all such deeds, bills of sale, instruments of conveyance, assignments and assurances and to take and do, in the name and on behalf of each of such corporations or otherwise, all such other actions and things as may be necessary or desirable to vest, perfect or confirm any and all right, title or interest in, to and under such rights, properties or assets in the Surviving Corporation or otherwise to carry out this Agreement.

1.2Closing and Effective Time of the Merger. The closing of the Merger (the "Closing") will take place at 8:00 a.m., local time, on the third Business Day after satisfaction or waiver of all of the applicable conditions set forth in Article 6 (other than those conditions that by their nature are to be satisfied at the Closing, but subject to the fulfillment or waiver of those conditions at the Closing), via electronic exchange of signature pages unless another time, date or place is agreed to in writing by the parties hereto; provided, that, notwithstanding the foregoing, if the Marketing Period has not ended at the time of the satisfaction or, to the extent permissible, waiver of the conditions set forth in Article 6 (other than those conditions that by their nature are to be satisfied at the Closing, but subject to the fulfillment or waiver of those conditions at the Closing), the Closing shall instead take place on the earlier of (i) a Business Day during the Marketing Period specified by Parent on no less than three (3) Business Days' prior written notice to the Company and (ii) the third Business Day after the final day of the Marketing Period (subject, in the case of each of clause (i) and (ii), to the satisfaction or, to the extent permissible, waiver of the conditions set forth in Article 6 (other than those conditions that by their nature are to be satisfied at the Closing, but subject to the fulfillment or waiver of those conditions at the Closing)). The date on which the Closing actually occurs is referred to as the "Closing Date". On the Closing Date, or on such other date as Parent and the Company may agree to, Merger Sub or the Company shall cause a certificate of merger (the "Certificate of Merger"), to be executed and filed with the Secretary of State of the State of Delaware in accordance with the relevant provisions of the DGCL and shall make all other filings required under the DGCL. The Merger shall become effective at the time the Certificate of Merger shall have been duly filed with the Secretary of State of the State of Delaware, or such later date and time as is agreed upon by the parties and specified in the Certificate of Merger (such date and time at which the Merger becomes effective hereinafter referred to as the "Effective Time").

ARTICLE 2
CONVERSION OF SECURITIES IN THE MERGER

2.1Conversion of Securities. At the Effective Time, by virtue of the Merger and without any action on the part of Parent, Merger Sub, the Company or the holders of any of the following securities:

(a)Conversion of Shares. Each Share issued and outstanding immediately prior to the Effective Time, other than Shares to be cancelled or converted pursuant to Section 2.1(b) or Dissenting Shares, shall be converted automatically into the right to receive $20.00 per Share (the "Merger Consideration"), payable to the holder in cash, without interest, subject to any withholding of Taxes required by applicable Law as provided in Section 2.5, upon surrender of the Certificates or Book-Entry Shares in accordance with Section 2.2. As of the Effective Time, all such Shares shall no longer be outstanding and shall automatically be cancelled and shall cease to exist, and shall thereafter represent only the right to receive the Merger Consideration to be paid in accordance with Section 2.2.

(b)Cancellation of Treasury Shares and Parent-Owned Shares. Each Share held by the Company as treasury stock or held directly by Parent or Merger Sub (or any direct or indirect wholly owned subsidiaries of Merger Sub), in each case, immediately prior to the Effective Time, shall automatically be cancelled and shall cease to exist, and no consideration or payment shall be delivered in exchange therefor or in respect thereof. All Shares issued and outstanding immediately prior to the Effective Time that are held by any direct or indirect wholly owned Subsidiary of the Company or by any direct or indirect wholly owned Subsidiary of Parent (other than Merger Sub) will automatically be converted into such number of validly issued, fully paid and nonassessable shares of common stock, no par value per share, of the Surviving Corporation, or fraction thereof, such that the ownership percentage of any such Subsidiary in the Surviving Corporation immediately following the Effective Time shall equal the ownership percentage of such Subsidiary in the Company immediately prior to the Effective Time.

(c)Merger Sub Equity Interests. All outstanding shares of capital stock of Merger Sub held immediately prior to the Effective Time shall be converted into and become (in the aggregate) one hundred (100) shares of newly and validly issued, fully paid and non-assessable shares of common stock of the Surviving Corporation.

2.2Payment for Securities; Surrender of Certificates.

(a)Paying Agent. At or prior to the Effective Time, Parent shall designate a nationally recognized bank or trust company to act as the paying agent (the identity and terms of designation and appointment of which shall be reasonably acceptable to the Company) for purposes of effecting the payment of the Merger Consideration in connection with the Merger in accordance with this Article 2 (the "Paying Agent"). The Company shall pay, or cause to be paid, the fees and expenses of the Paying Agent. At or prior to the Effective Time, Parent shall deposit, or cause to be deposited, with the Paying Agent the aggregate Merger Consideration to which holders of Shares shall be entitled at the Effective Time pursuant to this Agreement. In the event such deposited funds are insufficient to make the payments

contemplated pursuant to Section 2.1, Parent shall promptly deposit, or cause to be deposited, with the Paying Agent such additional funds to ensure that the Paying Agent has sufficient funds to make such payments. Such funds shall be invested by the Paying Agent as directed by Parent, pending payment thereof by the Paying Agent to the holders of the Shares in accordance with this Article 2; provided, however, that any such investments shall be in obligations of, or guaranteed by, the United States government or rated A-1 or P-1 or better by Moody's Investor Service, Inc. or Standard & Poor's Corporation, respectively. Earnings from such investments shall be the sole and exclusive property of the Surviving Corporation, and no part of such earnings shall accrue to the benefit of holders of Shares.

(b)Procedures for Surrender.

(i)*Certificates.* As soon as practicable after the Effective Time (and in no event later than three (3) Business Days after the Effective Time), the Surviving Corporation shall cause the Paying Agent to mail to each Person that was, immediately prior to the Effective Time, a holder of record of Shares represented by certificates (the "Certificates"), which Shares were converted into the right to receive the Merger Consideration at the Effective Time pursuant to this Agreement: (A) a letter of transmittal, which shall specify that delivery shall be effected, and risk of loss and title to the Certificates shall pass, only upon delivery of the Certificates to the Paying Agent, and shall otherwise be in such form as Parent and the Paying Agent shall reasonably agree; and (B) instructions for effecting the surrender of the Certificates (or affidavits of loss in lieu of the Certificates as provided in Section 2.2(e)) in exchange for payment of the Merger Consideration. Upon surrender of a Certificate (or affidavit of loss in lieu of the Certificate as provided in Section 2.2(e)) to the Paying Agent or to such other agent or agents as may be appointed by Parent, together with delivery of a letter of transmittal, duly executed and in proper form, with respect to such Certificates, the Paying Agent or such other agent, in accordance with the letter of transmittal and instructions, shall transmit to the holder of such Certificates the Merger Consideration for each Share formerly represented by such Certificates (subject to any withholding of Taxes required by applicable Law as provided in Section 2.5), and any Certificate so surrendered shall forthwith be cancelled. If payment of the Merger Consideration is to be made to a Person other than the Person in whose name any surrendered Certificate is registered, it shall be a condition precedent of payment that the Certificate so surrendered shall be properly endorsed or shall be otherwise in proper form for transfer, and the Person requesting such payment shall have paid any transfer and other similar Taxes required by reason of the payment of the Merger Consideration to a Person other than the registered holder of the Certificate so surrendered and shall have established to the satisfaction of Parent or the Surviving Corporation that such Taxes either have been paid or are not required to be paid. No interest will be paid or accrued on any amount payable upon due surrender of the Certificates. Until surrendered as contemplated hereby, each Certificate shall be deemed at any time after the Effective Time to represent only the right to receive the Merger Consideration in cash as contemplated by this Agreement, except for Certificates representing Dissenting Shares, which shall be deemed to represent only the right to receive payment of the fair value of such Shares in accordance with and solely to the extent provided by Section 262 of the DGCL.

(ii)*Book-Entry Shares.* Notwithstanding anything to the contrary contained in this Agreement, no holder of non-certificated Shares represented by book-entry ("Book-Entry Shares") shall be required to deliver a Certificate or, in the case of holders of

Book-Entry Shares held through The Depository Trust Company, an executed letter of transmittal to the Paying Agent, to receive the Merger Consideration that such holder is entitled to receive pursuant to Section 2.1(a). In lieu thereof, each holder of record of one or more Book-Entry Shares held through The Depository Trust Company whose Shares were converted into the right to receive the Merger Consideration shall automatically upon the Effective Time be entitled to receive, and Parent shall cause the Paying Agent to pay and deliver to The Depository Trust Company or its nominee as promptly as practicable after the Effective Time, in respect of each such Book-Entry Share a cash amount in immediately available funds equal to the Merger Consideration (subject to any withholding of Taxes required by applicable Law as provided in Section 2.5), and such Book-Entry Shares of such holder shall be cancelled. As soon as practicable after the Effective Time (and in no event later than three Business Days after the Effective Time), the Surviving Corporation shall cause the Paying Agent to mail to each Person that was, immediately prior to the Effective Time, a holder of record of Book-Entry Shares not held through The Depository Trust Company: (A) a letter of transmittal, which shall be in such form as Parent and the Paying Agent shall reasonably agree; and (B) instructions for returning such letter of transmittal in exchange for the Merger Consideration. Upon delivery of such letter of transmittal, in accordance with the terms of such letter of transmittal, duly executed, the holder of such Book-Entry Shares shall be entitled to receive in exchange therefor a cash amount in immediately available funds equal to the Merger Consideration (subject to any withholding of Taxes required by applicable Law as provided in Section 2.5), and such Book-Entry Shares so surrendered shall at the Effective Time be cancelled. Payment of the Merger Consideration with respect to Book-Entry Shares so surrendered shall only be made to the Person in whose name such Book-Entry Shares are registered. No interest will be paid or accrued on any amount payable upon due surrender of Book-Entry Shares. Until paid or surrendered as contemplated hereby, each Book-Entry Share shall be deemed at any time after the Effective Time to represent only the right to receive the Merger Consideration in cash as contemplated by this Agreement, except for Book-Entry Shares representing Dissenting Shares, which shall be deemed to represent the right to receive payment of the fair value of such Shares in accordance with and solely to the extent provided by Section 262 of the DGCL.

(c)Transfer Books; No Further Ownership Rights in Shares. At the Effective Time, the stock transfer books of the Company shall be closed and thereafter there shall be no further registration of transfers of Shares on the records of the Company. From and after the Effective Time, the holders of Certificates and Book-Entry Shares outstanding immediately prior to the Effective Time shall cease to have any rights with respect to such Shares except as otherwise provided for herein or by applicable Law. If, after the Effective Time, Certificates are presented to the Surviving Corporation for any reason, they shall be cancelled and exchanged as provided in this Agreement.

(d)Termination of Fund; Abandoned Property; No Liability. Any portion of the funds (including any interest received with respect thereto) made available to the Paying Agent that remains unclaimed by the holders of Certificates or Book-Entry Shares on the first anniversary of the Effective Time will be returned to the Surviving Corporation or an affiliate thereof designated by the Surviving Corporation, upon demand, and any such holder who has not tendered its Certificates or Book-Entry Shares for the Merger Consideration in accordance with Section 2.2(b) prior to such time shall thereafter look only to Parent and the Surviving Corporation (subject to abandoned property, escheat or other similar Laws) for

delivery of the Merger Consideration, without interest and subject to any withholding of Taxes required by applicable Law as provided in Section 2.5, in respect of such holder's surrender of their Certificates or Book-Entry Shares and compliance with the procedures in Section 2.2(b). Any portion of the Merger Consideration remaining unclaimed by the holders of Certificates or Book-Entry Shares immediately prior to such time as such amounts would otherwise escheat to, or become property of, any Governmental Entity will, to the extent permitted by applicable Law, become the property of the Surviving Corporation or an affiliate thereof designated by the Surviving Corporation, free and clear of any claim or interest of any Person previously entitled thereto. Notwithstanding the foregoing, none of Parent, Merger Sub, the Surviving Corporation, the Paying Agent or their respective affiliates will be liable to any holder of a Certificate or Book-Entry Shares for Merger Consideration delivered to a public official pursuant to any applicable abandoned property, escheat or similar Law. Any portion of the Merger Consideration made available to the Paying Agent pursuant to Section 2.2(a), to pay for Shares for which appraisal rights have been perfected shall be returned to the Surviving Corporation, upon demand.

(e)Lost, Stolen or Destroyed Certificates. In the event that any Certificates shall have been lost, stolen or destroyed, the Paying Agent shall issue in exchange for such lost, stolen or destroyed Certificates, upon the making of an affidavit of that fact by the holder thereof, the Merger Consideration payable in respect thereof pursuant to Section 2.1(a). Parent may, in its reasonable discretion and as a condition precedent to the payment of such Merger Consideration, require the owners of such lost, stolen or destroyed Certificates to deliver a bond in a reasonable sum as it may reasonably direct as indemnity against any claim that may be made against Parent, Merger Sub, the Surviving Corporation or the Paying Agent with respect to the Certificates alleged to have been lost, stolen or destroyed.

2.3Dissenting Shares. Notwithstanding anything in this Agreement to the contrary (but subject to the provisions of this Section 2.3), Shares outstanding immediately prior to the Effective Time and held by a holder who is entitled to demand and has properly demanded appraisal for such Shares in accordance with, and who complies in all respects with, Section 262 of the DGCL (such shares, the "Dissenting Shares") shall not be converted into the right to receive the Merger Consideration. At the Effective Time, all Dissenting Shares shall be cancelled and cease to exist, and the holders of Dissenting Shares shall only be entitled to the rights granted to them under the DGCL. If any such holder fails to perfect or otherwise waives, withdraws or loses his right to appraisal under Section 262 of the DGCL or other applicable Law, then the right of such holder to be paid the fair value of such Dissenting Shares shall cease and such Dissenting Shares shall be deemed to have been converted, as of the Effective Time, into and shall be exchangeable solely for the right to receive the Merger Consideration, without interest and subject to any withholding of Taxes required by applicable Law as provided in Section 2.5. The Company shall give Parent prompt notice of any demands received by the Company for appraisal of Shares and any other instruments served pursuant to the DGCL and received by the Company relating to rights to be paid the fair value of Dissenting Shares, and Parent shall have the right to participate in all negotiations and proceedings with respect to such demands. Prior to the Effective Time, the Company shall not, except with the prior written consent of Parent, voluntarily make any payment with respect to, or settle or compromise, any such demands, or agree to do any of the foregoing.

2.4Treatment of Restricted Stock Units and Performance Share Units.

(a)Treatment of Cash-Settled Performance Share Units. At the Effective Time, each outstanding award of Company cash-settled performance share units (each a, "Cash-Settled PSU"), whether vested or unvested, that is outstanding immediately prior to the Effective Time shall automatically and without any required action on the part of the holder thereof or the Company, become fully vested and be cancelled in exchange for the right to receive, at the Effective Time, an amount in cash (subject to any applicable withholding Taxes) equal to the product of (x) the total number of Shares or Share equivalents underlying such award of Cash-Settled PSUs (based on all applicable performance criteria being achieved at target performance), multiplied by (y) the Merger Consideration.

(b)Treatment of Cash-Settled Restricted Stock Units. At the Effective Time, each outstanding award of Company cash-settled restricted stock units (each a, "Cash-Settled RSU"), whether vested or unvested, that is outstanding immediately prior to the Effective Time shall automatically and without any required action on the part of the holder thereof or the Company, become fully vested and be cancelled in exchange for the right to receive, at the Effective Time, an amount in cash (subject to any applicable withholding Taxes) equal to the product of (x) the total number of Shares underlying such award of Cash-Settled RSUs, multiplied by (y) the Merger Consideration.

(c)Treatment of Share-Settled Restricted Stock Units and Performance Share Units. At the Effective Time, (i) each outstanding award of Share-settled Company restricted stock units (each, a "Share-Settled RSUs") that at such time is subject solely to service-based vesting conditions shall become fully vested and shall, automatically and without any required action on the part of the holder thereof or the Company, be cancelled and be converted into the right to receive (without interest) an amount in cash equal to the product of (x) the total number of Shares underlying such award of Share-Settled RSUs, multiplied by (y) the Merger Consideration, and (ii) each outstanding award of Company share-settled performance share units ("Share-Settled PSUs", and together with the Cash-Settled RSUs, Cash-Settled PSUs and Share-Settled RSUs, "Company Awards") that at such time is subject to performance-based vesting conditions that is outstanding immediately prior to the Effective Time shall become vested as to the number of Shares subject to such award that would vest at the target level, and shall, after giving effect to such vesting, automatically and without any required action on the part of the holder thereof or the Company, be cancelled and be converted into the right to receive (without interest) an amount in cash equal to the product of (x) the number of vested Shares underlying such award, multiplied by (y) the Merger Consideration.

(d)Payment by Surviving Corporation. The Surviving Corporation shall, and Parent shall cause the Surviving Corporation to, pay to the holders of Company Awards the amounts described in Sections 2.4(a), 2.4(b) and 2.4(c), less any Taxes required to be withheld under applicable Law with respect to such payments and subject to any deferral elections with respect to such Company Awards made by the holders of such Company Awards pursuant to the Tenneco Inc. Incentive Deferral Plan, as amended and restated effective as of January 1, 2018, as applicable, as soon as practicable following the Closing Date, through the Surviving Corporation's payroll system, but not later than five (5) Business Days following the Closing Date. Notwithstanding the foregoing, to the extent that any amounts payable under this

Section 2.4 relate to a Company Award that is nonqualified deferred compensation subject to Section 409A of the Code, Parent, the Surviving Corporation or the applicable Subsidiary shall pay such amounts as promptly as is practicable following the earliest time permitted under the terms of the applicable agreement, plan or arrangement relating to such Company Award and that will not trigger a Tax or penalty under Section 409A of the Code (after taking into account actions taken under Treasury Regulations Section 1-409A-3(j)(4)(ix)), but in no event later than five (5) Business Days after such time.

(e)Termination of the Company Equity Plans. As of the Effective Time, the Company Equity Plans shall be terminated and no further Shares or Company Awards in the Company or other rights with respect to Shares shall be granted thereunder. Following the Effective Time, no such Company Award or other right that was outstanding immediately prior to the Effective Time shall remain outstanding and each former holder of any such Company Award shall cease to have any rights with respect thereto, except the right to receive the consideration set forth in this Section 2.4.

(f)Board Actions. Prior to the Effective Time, the Company Board (or, if appropriate, any committee thereof) shall adopt appropriate resolutions and take such other actions as are reasonably necessary to effect the transactions described in this Section 2.4.

2.5Withholding Rights. The Company, Parent, Merger Sub, the Surviving Corporation and the Paying Agent, as the case may be, shall be entitled to deduct and withhold from any amounts otherwise payable pursuant to this Agreement such amounts as are required to be deducted and withheld with respect to the making of such payment under the Code or any other provision of applicable Law. In the event any such Person (a "Payor") determines that any amounts otherwise payable pursuant to this Agreement (other than any amounts payable in respect of compensation for services) would be subject to deduction or withholding under applicable Law, (a) Payor shall use commercially reasonable efforts to notify the Person otherwise entitled to such amounts (a "Payee") prior to the date on which such deduction or withholding is anticipated to occur, and (b) the Payor and the Payee shall reasonably cooperate to minimize or eliminate such deduction or withholding as permitted by applicable Law. To the extent that amounts are so deducted or withheld and paid to the appropriate Governmental Entity, such amounts shall be treated for all purposes of this Agreement as having been paid to the Person in respect of which such deduction or withholding was made.

2.6Adjustments. In the event that, between the date of this Agreement and the Effective Time, any change in the outstanding Shares shall occur as a result of any stock split, reverse stock split, stock dividend (including any dividend or distribution of Equity Interests convertible into or exchangeable for Shares), recapitalization, reclassification, combination, exchange of shares or other similar event, the Merger Consideration shall be equitably adjusted to reflect such event and to provide to holders of Shares the same economic effect as contemplated by this Agreement prior to such event; provided that nothing in this Section 2.6 shall be deemed to permit or authorize the Company to take any such action or effect any such change that it is not otherwise authorized or permitted to take pursuant to Section 5.1 or is otherwise prohibited or restricted by any other provision of this Agreement.

ARTICLE 3
REPRESENTATIONS AND WARRANTIES OF THE COMPANY

Except (a) as set forth in the disclosure schedule delivered by the Company to Parent and Merger Sub concurrently with the execution of this Agreement (the "Company Disclosure Schedule") or (b) as otherwise disclosed or identified in the Company SEC Documents or the Company's draft Form 10-K in respect of fiscal year 2021 in the form made available to Parent in the data room, in each case, at least two (2) Business Days prior to the date hereof, other than any risk factor disclosures (excluding statements of historical fact) in any such Company SEC Document contained in the "Risk Factors" section thereof or other similarly cautionary, forward-looking or predictive statements in such Company SEC Document, the Company hereby represents and warrants to Parent and Merger Sub as of the date hereof and as of the Closing Date that:

3.1Corporate Organization. Each of the Company and its Subsidiaries is a corporation or other legal entity duly organized, validly existing and, to the extent applicable, in good standing under the laws of the jurisdiction of its incorporation or organization and has the requisite corporate or organizational, as the case may be, power and authority to own, lease and operate its properties and assets and to carry on its business as it is now being conducted, except, in the case of the Company's Subsidiaries, as would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect. Each of the Company and its Subsidiaries is duly licensed or qualified to do business and is in good standing (where such concept is recognized) in each jurisdiction in which the nature of the business conducted by it or the character or location of the properties and assets owned, leased or operated by it makes such licensing or qualification necessary, except where the failure to be so licensed, qualified or in good standing, has not had and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect. The copies of the Amended and Restated Certificate of Incorporation (the "Company Charter") and Amended and Restated Bylaws (the "Company Bylaws") of the Company, as most recently filed with the Company SEC Documents, are true, complete and correct copies of such documents as in effect as of the date of this Agreement and such documents are in full force and effect. The Company is not in violation of any of the provisions of the Company Charter or the Company Bylaws. Except as would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, (a) each of the organizational or governing documents of each of the Company's Subsidiaries is in full force and effect and (b) none of the Company's Subsidiaries is in violation of any provision of the foregoing documents.

3.2Capitalization.

(a)The authorized capital stock of the Company consists of one hundred seventy-five million (175,000,000) Shares, twenty-five million (25,000,000) shares of Class B non-voting convertible common stock, par value $0.01 per share ("Class B Common Stock"), and fifty million (50,000,000) shares of preferred stock, par value $0.01 per share ("Company Preferred Stock"). As of February 18, 2022, (i) 83,132,435 Shares (other than treasury shares) were issued and outstanding, all of which were validly issued and fully paid, nonassessable and free of preemptive rights, (ii) 14,592,888 Shares were held in the treasury of the Company or by its Subsidiaries, (iii) zero (0) shares of Class B Common Stock were issued

and outstanding, (iv) 4,760,283 Shares or Share equivalents are subject to outstanding Company RSUs, (v) zero (0) Shares or Share equivalents are subject to outstanding Company PSUs (assuming that the applicable performance metrics are achieved at target levels), and (vi) no shares of Company Preferred Stock were issued and outstanding. Except for Share-Settled RSUs and Share-Settled PSUs convertible into not more than an aggregate of 4,760,283 Shares (assuming target level of performance with respect to Share-Settled PSUs) under the Company Equity Plans, there are no options, warrants or other rights, agreements, arrangements or commitments of any character (including any shareholders agreements, voting trusts, proxies or other similar agreements or any obligations requiring the registration for sale of any shares of capital stock of or other voting or equity interests) to which the Company or any of its Subsidiaries is a party or by which the Company or any of its Subsidiaries is bound relating to the issued or unissued capital stock or other Equity Interests of the Company, or securities convertible into or exchangeable for such capital stock or other Equity Interests of the Company, or obligating the Company to issue or sell any shares of its capital stock or other Equity Interests of the Company, or securities convertible into or exchangeable for such capital stock of, or other Equity Interests in, the Company. Since September 30, 2021 and prior to the date of this Agreement, except for the issuance of Shares under the Company Equity Plans in accordance with their terms, the Company has not issued any shares of its capital stock or other Equity Interests, or securities convertible into or exchangeable for such capital stock or other Equity Interests, other than those shares of capital stock reserved for issuance described in this Section 3.2(a).

(b)The Company has previously provided Parent with a true and complete list, as of the date hereof, with respect to each outstanding Company Award, (i) the holder thereof, (ii) the grant date thereof, (iii) the vesting conditions thereof and (iv) the total number of Shares or total amount of cash, as applicable, that may be received pursuant thereto. All Shares subject to issuance under the Company Equity Plans, upon issuance prior to the Effective Time on the terms and conditions specified in the instruments pursuant to which they are issuable, will be duly authorized, validly issued, fully paid, nonassessable and free of preemptive rights. There are no outstanding contractual obligations of the Company or any of its Subsidiaries (i) restricting the transfer of, (ii) affecting the voting rights of, (iii) requiring the repurchase, redemption or disposition of, or containing any right of first refusal with respect to, (iv) requiring the registration for sale of, or (v) granting any preemptive or antidilutive right with respect to, any Shares or any capital stock of, or other Equity Interests in, the Company or any of its Subsidiaries.

(c)Section 3.2(c) of the Company Disclosure Schedule sets forth a complete list of each Subsidiary of the Company, together with its jurisdiction of organization or incorporation and the ownership interest (and percentage interest) of the Company or its Subsidiaries, in such Subsidiary. Except as set forth in Section 3.2(c) of the Company Disclosure Schedule, the Company and its Subsidiaries own, directly or indirectly, all of the issued and outstanding shares of capital stock or other equity interests of each of the Subsidiaries of the Company, free and clear of any Liens (other than (x) Liens with respect to the Company Credit Facility and the Secured Notes Indentures, (y) Liens described by clause (i) of the definition of Permitted Liens and (z) transfer and other restrictions under applicable securities Laws), and all of such outstanding shares of stock or other equity securities have been duly authorized and validly issued and are fully paid, nonassessable and free of preemptive rights. There are no

options, warrants or other rights, agreements, arrangements or commitments of any character to which any Subsidiary of the Company is a party or by which any Subsidiary of the Company is bound relating to the issued or unissued capital stock or other Equity Interests of such Subsidiary, or securities convertible into or exchangeable for such capital stock or other Equity Interests, or obligating any Subsidiary of the Company to issue or sell any shares of its capital stock or other Equity Interests, or securities convertible into or exchangeable for such capital stock of, or other Equity Interests in, such Subsidiary. No Subsidiary of the Company (or, to Knowledge of the Company, any Company Joint Venture) owns any Shares or any capital stock of, or other Equity Interests in, the Company.

(d)Neither the Company nor any of its Subsidiaries has outstanding bonds, debentures, notes or other indebtedness, or other debt securities, the holders of which have the right to vote (or which are convertible into or exercisable for securities having the right to vote) with the stockholders of the Company on any matter.

(e)Section 3.2(e) of the Company Disclosure Schedule sets forth a complete list of all Company Joint Ventures together with the Company's or its applicable Subsidiary's ownership interest (and percentage interest) in each Company Joint Venture.

3.3Authority; Execution and Delivery; Enforceability.

(a)The Company has all necessary power and authority to execute and deliver this Agreement, to perform and comply with each of its obligations under this Agreement and, subject to the receipt of the Company Stockholder Approval, to consummate the Transactions. The execution and delivery by the Company of this Agreement, the performance and compliance by the Company with each of its obligations herein, and the consummation by it of the Transactions have been duly authorized by all necessary corporate action on the part of the Company, subject to receipt of the Company Stockholder Approval, and no other corporate proceedings on the part of the Company and no other stockholder votes are necessary to authorize this Agreement or the consummation by the Company of the Transactions. The Company has duly and validly executed and delivered this Agreement and, assuming the due authorization, execution and delivery by Parent and Merger Sub of this Agreement, this Agreement constitutes a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, except as limited by applicable Laws affecting the enforcement of creditors' rights generally or by general equitable principles (whether considered in a proceeding at law or in equity).

(b)The Company Board, at a meeting duly called and held, duly and unanimously adopted resolutions (i) determining that the Transactions, including the Merger, are advisable, fair to and in the best interests of the Company and its stockholders, (ii) approving, adopting and declaring advisable this Agreement and the Transactions, including the Merger, (iii) directing that this Agreement be submitted to the stockholders of the Company for its adoption at the Company Meeting, and (iv) recommending that the Company's stockholders adopt this Agreement (the "Company Board Recommendation"), which resolutions, subject to Section 5.3, have not been subsequently rescinded, withdrawn or modified in a manner adverse to Parent.

(c)Subject to the accuracy of Section 4.7, the Company Board has taken all necessary actions so that the restrictions on business combinations set forth in Section 203 of the DGCL and any other similar Law are not applicable to this Agreement and the Transactions, including the Merger or the other Transactions. To the Knowledge of the Company, no other takeover, anti-takeover, business combination, control share acquisition or similar Law applies to the Merger or the other Transactions. The only vote of holders of any class or series of Shares or other Equity Interests of the Company necessary to adopt this Agreement is the adoption of this Agreement by the holders of a majority of the voting power represented by the Shares that are outstanding and entitled to vote thereon at the Company Meeting (the "Company Stockholder Approval"). No other vote of the holders of Shares or any other Equity Interests of the Company is necessary to consummate the Transactions.

3.4No Conflicts.

(a)The execution and delivery of this Agreement does not and will not, and the performance of this Agreement by the Company will not, directly or indirectly (with or without notice or lapse of time, or both) (i) assuming the Company Stockholder Approval is obtained, conflict with or violate any provision of the Company Charter or the Company Bylaws, (ii) assuming the Company Stockholder Approval is obtained, conflict with or violate any provision of any organizational documents of any Subsidiary of the Company or of any Company Joint Venture, (iii) assuming that all consents, approvals, authorizations and permits described in Section 3.4(b) have been obtained and all filings and notifications described in Section 3.4(b) have been made and any waiting periods thereunder have terminated or expired, conflict with or violate any Law applicable to the Company or any of its Subsidiaries or any Company Joint Venture or by which any property or asset of the Company or any of its Subsidiaries or any Company Joint Venture is bound or affected or (iv) require any consent or approval under, violate, conflict with, result in any breach of or any loss of any benefit under, constitute a change of control or default (or an event which with notice or lapse of time or both would become a default) under or give to others any right of termination, vesting, amendment, acceleration or cancellation of, or result in the creation of a Lien on any property or asset of the Company or any of its Subsidiaries or, to the Knowledge of the Company, any Company Joint Venture pursuant to, any Contract or Permit to which the Company or any of its Subsidiaries or, to the Knowledge of the Company, any Company Joint Venture is party (or by which any of their respective properties or assets are bound), except, with respect to clauses (ii), (iii) and (iv), for any such conflicts, violations, breaches, defaults or other occurrences which would not, individually or in the aggregate, reasonably be expected to have a Company Material Adverse Effect.

(b)The execution and delivery of this Agreement by the Company does not and will not, and the consummation by the Company of the Transactions and compliance by the Company with any of the terms or provisions hereof will not (in each case with or without notice or lapse of time, or both), require any consent, approval, authorization or permit of, or filing or registration with or notification to, any Governmental Entity, except (i) under the Exchange Act and the rules and regulations of the NYSE, (ii) any applicable requirements of any Antitrust Laws or in connection with any FDI Approval, (iii) the filing and recordation of the Certificate of Merger as required by the DGCL and (iv) where failure to obtain such consents, approvals, authorizations or permits, or to make such filings or notifications,

would not, individually or in the aggregate, reasonably be expected to have a Company Material Adverse Effect.

3.5SEC Documents; Financial Statements; Undisclosed Liabilities.

(a)The Company has filed or furnished on a timely basis all reports, schedules, forms, statements, registration statements, prospectuses and other documents required to be filed or furnished by the Company with the SEC under the Securities Act or the Exchange Act since February 22, 2020 together with all certifications required pursuant to the Sarbanes-Oxley Act of 2002, as amended (the "Sarbanes-Oxley Act") (such documents and any other documents filed or furnished by the Company with the SEC, as they have been supplemented, modified or amended since the time of filing, collectively, the "Company SEC Documents"). None of the Subsidiaries of the Company (nor, to the Knowledge of the Company, any Company Joint Venture) is required to make any filings with the SEC.

(b)As of its respective filing date (or, if amended or superseded prior to the date of this Agreement, on the date of the last such filing) each Company SEC Document complied in all material respects with the requirements of the Exchange Act or the Securities Act, as the case may be, and the rules and regulations of the SEC promulgated thereunder applicable to such Company SEC Document and did not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading, in each case when filed or furnished, or with respect to any proxy statement filed pursuant to the Exchange Act, on the date of the applicable meeting. As of the date of this Agreement, there are no outstanding or unresolved comments received from the SEC with respect to any Company SEC Documents. There has been no material correspondence between the SEC and the Company since February 22, 2020 that is not set forth in the Company SEC Documents or that has not otherwise been disclosed to Parent prior to the date hereof.

(c)The consolidated financial statements of the Company included in the Company SEC Documents (including, in each case, any notes or schedules thereto) (the "Company SEC Financial Statements") (i) fairly present, in all material respects, the financial condition and the results of operations, cash flows and changes in stockholders' equity of the Company and its Subsidiaries (on a consolidated basis) as of the respective dates of and for the periods referred to in the Company SEC Financial Statements, and (ii) were prepared in accordance with GAAP (as in effect in the United States on the date of such Company SEC Financial Statement) as applied by the Company on a consistent basis throughout the periods covered thereby (except as may be indicated in the notes thereto or, in the case of unaudited statements, as permitted by Form 10-Q of the SEC), subject, in the case of interim Company SEC Financial Statements, to normal year-end adjustments that are not material in amount or nature, individually or in the aggregate, and the absence of certain notes (none of which if presented would materially differ from those presented in the audited Company SEC Financial Statements).

(d)The Company has timely filed all certifications and statements required by (i) Rule 13a-14 or Rule 15d-14 under the Exchange Act; or (ii) 18 U.S.C. Section 1350 (Section 906 of the Sarbanes-Oxley Act) with respect to all applicable Company SEC

Documents. The Company maintains disclosure controls and procedures required and as defined by Rule 13a-15 or Rule 15d-15 under the Exchange Act, which such controls and procedures are reasonably designed to ensure that all material information concerning the Company and its Subsidiaries is made known on a timely basis to the individuals responsible for the preparation of the Company SEC Documents.

(e)The Company has designed and maintains a system of internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) as required by Rule 13a-15 under the Exchange Act and sufficient in all material respects to provide reasonable assurances regarding the reliability of financial reporting for the Company and its Subsidiaries for external purposes in accordance with GAAP. There were no significant deficiencies or material weaknesses identified in management's assessment of internal control over financial reporting as of and for the year ended December 31, 2021 (nor has any such deficiency or weakness been identified as of the date hereof) or any fraud related to the Company, its Subsidiaries, any Company Joint Ventures and their respective businesses (or, to the Knowledge of the Company, any other fraud), whether or not material, that involves the management or other employees of the Company or any of its Subsidiaries who have a significant role in the Company's internal control over financial reporting.

(f)The Company and its Subsidiaries do not have any liabilities or obligations of any nature (whether absolute or contingent, asserted or unasserted, known or unknown, primary or secondary, direct or indirect, and whether or not accrued), required by GAAP to be reflected or reserved on a consolidated balance sheet of the Company (or the notes thereto) except (i) as specifically disclosed or reflected and adequately reserved against in the most recent balance sheet included in the Company SEC Financial Statements or the notes thereto, (ii) for liabilities and obligations incurred in the ordinary course of business since the date of the most recent balance sheet included in the Company SEC Financial Statements, (iii) for liabilities and obligations incurred pursuant to the transactions contemplated by this Agreement, (iv) for liabilities incurred that have been discharged or paid in full prior to the date of this Agreement and (v) for liabilities and obligations that, individually or in the aggregate, have not had, and would not reasonably be expected to have, a Company Material Adverse Effect.

3.6Absence of Certain Changes or Events. Since September 30, 2021 through the date of this Agreement, (a) except for any Permitted Actions, the Company and its Subsidiaries have conducted their businesses (including with respect to the Company Joint Ventures) in all material respects in the ordinary course and in a manner consistent with past practice and (b) there has not been any change, event, development, condition or occurrence that, individually or in the aggregate, has had or would reasonably be expected to have a Company Material Adverse Effect. Since September 30, 2021, through the date of this Agreement, neither the Company nor any of its Subsidiaries has taken any action that would have constituted a breach of, or required Parent's consent pursuant to, Sections 5.1(a), 5.1(b), 5.1(c), 5.1(d), 5.1(e), 5.1(f), 5.1(g), 5.1(m), 5.1(p), 5.1(s), 5.1(t) and 5.1(u) (but, in the case of Section 5.1(u), solely with respect to the enumerated subsections of Section 5.1 previously listed in this sentence) had the covenants therein applied since September 30, 2021.

3.7Proxy Statement. None of the information supplied or to be supplied by the Company for inclusion or incorporation by reference in the Proxy Statement will, at the date that the Proxy Statement or any amendment or supplement thereto is mailed to holders of Shares and at the time of the Company Meeting, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances in which they are made, not misleading (except that no representation or warranty is made by the Company with respect to any statements made therein based on information supplied by or on behalf of Parent specifically for inclusion or incorporation by reference therein). The Proxy Statement will comply as to form in all material respects with the requirements of the Exchange Act and other applicable Law.

3.8Litigation.

(a)Except (i) as set forth on Section 3.8 of the Company Disclosure Schedule, or (ii) for Proceedings that would not reasonably be expected to have, a Company Material Adverse Effect, there are no Proceedings pending or, to the Knowledge of the Company, threatened against the Company or any of its Subsidiaries, at law or in equity, or before or by any Governmental Entity, and none of the Company or any of its Subsidiaries is subject to any outstanding Order that, individually or in the aggregate, is or would reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole.

(b)As of the date of this Agreement, there are no Proceedings pending or, to the Knowledge of the Company, threatened against the Company at law or in equity, or before or by any Governmental Entity, which would materially and adversely affect the Company's ability to perform its obligations hereunder or consummate the Transaction. The Company is not subject to any outstanding Order that would materially and adversely affect the Company's ability to perform its obligations hereunder or consummate the Transactions.

3.9Compliance with Laws. Except as set forth on Section 3.9 of the Company Disclosure Schedule, (a) the Company and each of its Subsidiaries is, and during the three (3) years prior to the date hereof has been, in compliance with all applicable Laws in all material respects and (b) during the three (3) years prior to the date hereof, no written Proceedings have been received by, and to the Knowledge of the Company, no Proceedings have been filed against, the Company or any of its Subsidiaries alleging material noncompliance with any Laws, other than, in each case, requests for information or audits in the ordinary course.

3.10Governmental Consents; Permits; etc.

(a)Except for (i) filings required under, and compliance with other applicable requirements of, (A) the HSR Act, (B) the other Antitrust Laws set forth on Section 5.7(a) of the Company Disclosure Schedule, and (C) the FDI Approvals set forth on Section 5.7(a) of the Company Disclosure Schedule, (ii) compliance with the Exchange Act, including the filing with the SEC of the Proxy Statement, (iii) compliance with the rules and regulations of the NYSE, (iv) compliance with any applicable state securities or blue sky Laws, or (v) as set forth on Section 3.10 of the Company Disclosure Schedule, and except in connection with facts or circumstances relating solely to Parent or any of its affiliates, no consent, approval, or authorization of, or declaration to or filing with, any Governmental Entity is required in

connection with any of the execution, delivery or performance of this Agreement by the Company or the consummation by the Company of the Merger or the other Transactions, other than any such consent, approval, authorization, declaration or filing that, if not obtained, would reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect.

(b)Except as and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, the Company and its Subsidiaries have obtained, and are, and during the two (2) years prior to the date hereof have been, in compliance with all material Permits necessary under applicable Laws to permit the Company and its Subsidiaries to own, operate, use, and maintain their assets in the manner in which they are now operated and maintained, and to conduct their business, taken as a whole, as currently conducted, and such Permits are in full force and effect. There are no, and since January 1, 2020 there have been no, pending or, to the Knowledge of the Company, threatened limitations, terminations, expirations or revocations of such Permits, in each case, other than such limitations, terminations, expirations or revocations that would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect. Except as would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, there are no outstanding written notices received by the Company or any of its Subsidiaries alleging the failure to hold any material Permits.

3.11Employment Benefit Plans.

(a)Section 3.11(a) of the Company Disclosure Schedule sets forth a true and complete list of each material Company Benefit Plan. For purposes of this Agreement, "Company Benefit Plan" shall mean each "employee benefit plan" (within the meaning of Section 3(3) of ERISA) and each other equity or equity-based incentive, compensation, severance, employment, consulting, change-in-control, retention, vacation, paid time off, fringe benefit, bonus, incentive, savings, retirement, deferred compensation, or other compensatory or benefit plan, agreement, program, policy or arrangement, whether or not subject to ERISA, (a) entered into, contributed to (or required to be contributed to), sponsored by or maintained by the Company or any of its Subsidiaries or (b) for which the Company or any of its Subsidiaries has any Liability (contingent or otherwise), other than any Multiemployer Plan and any programs sponsored or maintained by a Governmental Entity; provided, for the avoidance of doubt, that individual employment contracts or consultancy agreements for service providers below the grade level of E-1 need not be set forth on Section 3.11(a) of the Company Disclosure Schedule. With respect to each material Company Benefit Plan, a copy of each of the following documents, and all amendments and modifications to such documents, has been made available to Parent: (i) the written document evidencing such Company Benefit Plan or, with respect to any such plan that is not in writing, a written description of the material terms thereof, and all amendments, modifications or material supplements to such Company Benefit Plan, (ii) the annual report (Form 5500), if any, filed with the IRS for the last plan year, (iii) the most recently received IRS determination letter, if any, relating to such Company Benefit Plan, (iv) the most recent actuarial report and/or financial statement, if any, relating to such Company Benefit Plan, and (v) any related trust agreements, annuity contracts, insurance contracts or documents of any other funding arrangements.

(b)Except as would not reasonably be expected to result, individually or in the aggregate, in material liability to the Company or its Subsidiaries:

(i)each Company Benefit Plan complies and has been established, maintained, funded, operated, and administered in accordance with its terms and the requirements of all Laws applicable thereto, including ERISA and the Code;

(ii)each Company Benefit Plan which is intended to qualify under Section 401(a) of the Code has received a favorable determination letter from the IRS as to its qualified status and, to the Company's Knowledge, no fact or event has occurred that could reasonably be expected to cause the loss of the Tax qualified status of any such Company Benefit Plan or the Tax exempt status of any associated trust;

(iii)no Company Benefit Plan is under audit or is the subject of an audit, investigation or other administrative proceeding by the IRS, the Department of Labor, or any other Governmental Entity, nor is any such audit, investigation or other administrative proceeding, to the Knowledge of the Company, threatened;

(iv)all contributions, reimbursements, premium payments and other payments required to have been made under or with respect to each Company Benefit Plan as of or prior to the date hereof have been made or accrued (as applicable) on a timely basis in accordance with applicable Law and such Company Benefit Plan's terms;

(v)there has been no prohibited transaction (within the meaning of Section 406 of ERISA or Section 4975 of the Code and other than a transaction that is exempt under a statutory or administrative exemption) and no breaches of fiduciary duty (as determined under ERISA) with respect to any Company Benefit Plan;

(vi)there are no actions, suits or claims (other than routine claims for benefits) pending or, to the Knowledge of the Company, threatened, involving any Company Benefit Plan; and

(vii)no Proceeding has been brought, or to the Knowledge of the Company is threatened, against or with respect to any such Company Benefit Plan, including any audit or inquiry by the IRS or United States Department of Labor (other than routine benefits claims).

(c)No Company Benefit Plan is, and none of the Company, its Subsidiaries, or any of its ERISA Affiliates, during the six (6) years prior to the date hereof, has maintained, contributed to, been required to contribute to or otherwise had any Liability with respect to: (i) any plan that is or was subject to Section 302 or Title IV of ERISA or Section 412, 430 or 4971 of the Code, or (ii) any Multiemployer Plan. No Company Benefit Plan is a "multiple employer plan" (within the meaning of Section 210 of ERISA or Section 413(c) of the Code), or a "multiple employer welfare arrangement" (as such term is defined in Section 3(40) of ERISA). Neither the Company nor any of its Subsidiaries has any Liability, or is reasonably expected to have any, material Liability: (x) under Title IV of ERISA or (y) on account of at any time being considered a single employer under Section 414 of the Code with any other Person.

(d)Neither the execution of this Agreement nor the consummation of the Transactions (alone or in conjunction with any other event, including any termination of employment) will (i) entitle any current or former service provider to severance pay or any other payment, (ii) result in any payment becoming due, accelerate the time of payment or vesting of benefits or increase the amount of or result in the forfeiture of any compensation or benefits due to any current or former service provider or result in any payment or funding (through a grantor trust or otherwise) of compensation or benefits, (iii) result in any forgiveness of indebtedness of any service provider, (iv) result in any payment (whether in cash or property or the vesting of property) to any "disqualified individual" (within the meaning of Section 280G of the Code) that would reasonably be expected to, individually or in combination with any other such payment, constitute an "excess parachute payment" (within the meaning of Section 280G(b)(1) of the Code), or (v) result in any restriction on the right of the Company or any of its Subsidiaries or, after the consummation of the Merger or the Transactions, the Surviving Corporation, to merge, amend or terminate any of the material Company Benefit Plans. The Company has no obligations to gross-up or reimburse any individual for any Tax or related interest or penalties incurred by such individual, including under Sections 409A or 4999 of the Code or otherwise.

(e)Neither the Company nor any of its Subsidiaries has any Liability under any Company Benefit Plan or otherwise for providing post-termination or retiree health, medical, life or other welfare benefits to any Person, other than as required under Part 6 of Subtitle B of Title I of ERISA and Section 4980B of the Code or applicable Law at the sole expense of such employee. Neither the Company nor any of its Subsidiaries has incurred (whether or not assessed), or is reasonably expected to incur or to be subject to, any Tax or other material penalty with respect to the reporting requirements under Sections 6055 and 6056 of the Code, as applicable, or under Section 4980B, 4980D or 4980H of the Code.

(f)Each Company Benefit Plan and any other agreement, plan, Contract or arrangement maintained by the Company or any of its Subsidiaries that is, in any part, a nonqualified deferred compensation plan within the meaning of Section 409A of the Code has been operated and maintained in all material respects in operational and documentary compliance with Section 409A of the Code and applicable guidance thereunder.

3.12Employee and Labor Matters.

(a)Neither the Company nor any of its Subsidiaries is a party to a collective bargaining agreement, agreement with any works council or similar labor contract (a "Collective Labor Agreement"), other than the agreements set forth on Section 3.12(a) of the Company Disclosure Schedule or any such agreements that apply on a national, industry-wide or similar mandatory basis and no Collective Labor Agreement requires any notice, consultation or consent rights with respect to the transactions contemplated by this Agreement. Since January 31, 2018, there has not occurred and, to the Knowledge of the Company, there is not threatened, (i) any strike, slowdown, picketing, material labor-related arbitration, material grievance, or work stoppage by, or lockout of, or to the Knowledge of the Company, union organizing activities with respect to, any employees of the Company or any of its Subsidiaries, (ii) any Proceeding against the Company or any of its Subsidiaries relating to the alleged violation of any Laws pertaining to labor relations or employment matters, including any charge or complaint filed by an employee or union with the National Labor Relations Board, the Equal

Employment Opportunity Commission, or any comparable Governmental Entity, or (iii) any application for representation or certification of a labor union, works council, or other labor organization seeking to represent any employees of the Company or any of its Subsidiaries.

(b)Except as would not reasonably be expected to result, individually or in the aggregate, in material liability to the Company or its Subsidiaries, the Company and each of its Subsidiaries are in compliance with all applicable Laws respecting labor, employment and employment practices including, without limitation, all Laws respecting terms and conditions of employment, fair employment practices, health and safety, wage payment, wages and hours, child labor, immigration and work authorizations, employment discrimination, worker classification, withholding of Taxes, disability rights or benefits, equal opportunity, plant closures and layoffs, affirmative action, workers' compensation, labor relations, social welfare obligations and unemployment insurance and related matters.

(c)Except as would not reasonably be expected to result, individually or in the aggregate, in material Liability to the Company or any of its Subsidiaries, (i) none of the Company or its Subsidiaries has entered into a settlement agreement with a current or former officer, director or employee of the Company or any of its Subsidiaries resolving allegations of sexual harassment or misconduct by an executive officer, director or employee of the Company or any of its Subsidiaries, and (ii) there are no, and since January 31, 2018, there have not been any Proceeding pending or, to the Knowledge of the Company, threatened, against the Company or any of its Subsidiaries, in each case, involving allegations of sexual harassment or misconduct by an officer, director or employee of the Company or any of its Subsidiaries. The Company and its Subsidiaries have investigated all material sexual harassment or other material discrimination allegations with respect to current and former employees of which it is or was aware.

3.13Environmental Matters. Except as set forth on Section 3.13 of the Company Disclosure Schedule, or as would not reasonably be expected to be, individually or in the aggregate, material to the Company and its Subsidiaries, taken as a whole:

(a)Each of the Company and its Subsidiaries is in compliance, and has for the past three (3) years complied, with all applicable Environmental Laws, which compliance includes, and has included, obtaining, maintaining, and complying with, and filing timely application to renew, all Permits required for the operation of the business as conducted as of or for the three (3) years prior to the Closing Date.

(b)Neither the Company nor any of its Subsidiaries has received a written Proceeding or Order that remains outstanding or unresolved as of the Closing Date alleging any violation of, or liability under, applicable Environmental Laws.

(c)To the Knowledge of the Company, neither the Company nor its Subsidiaries has disposed of, arranged for the disposal of, transported, or Released, owned, leased or operated any property or facility contaminated by, exposed any Person to, or manufactured, distributed or sold any Hazardous Substance (including at, on, under or from any real property currently or formerly owned or leased by the Company or any of its Subsidiaries or any of their respective predecessors), in each case in a manner that has not been in compliance

with applicable Environmental Laws or that has given or would reasonably be expected to give rise to liabilities of the Company or its Subsidiaries pursuant to applicable Environmental Laws.

(d)To the Knowledge of the Company, the Company has made available all environmental audits, assessments, and reports in the Company's possession or control that have been prepared in the thirty-six (36) months prior to the date of this Agreement and relate to any of the Company or its Subsidiaries (including any real property currently or formerly owned, leased or operated by the Company or its Subsidiaries), and which disclose liabilities or noncompliance that would reasonably be expected to be, individually or in the aggregate, material to the Company and its Subsidiaries, taken as a whole.

3.14Real Property; Title to Assets.

(a)Section 3.14(a) of the Company Disclosure Schedule sets forth a true and complete list of all material real property owned in fee by the Company or any of its Subsidiaries (collectively, the "Company Owned Real Property") and the address for each Company Owned Real Property. The Company or any of its Subsidiaries, as the case may be, holds good and valid fee simple title to the Company Owned Real Property, free and clear of all Liens, except for Permitted Liens.

(b)Section 3.14(b) of the Company Disclosure Schedule sets forth (i) a true and complete list of all material real property leased, subleased or otherwise occupied by the Company or any of its Subsidiaries (collectively, the "Company Leased Real Property"), (ii) the address for each parcel of Company Leased Real Property, and (iii) a description of the applicable lease, sublease or other agreement and any and all amendments and modifications relating thereto. The Company or any of its Subsidiaries, as the case may be, holds a valid leasehold estate in all Company Leased Real Property, and the Company Leased Real Property is not subject to any Liens, other than Permitted Liens. Section 3.14(b) of the Company Disclosure Schedule contains a complete and accurate list of each Leased Real Property Lease. As of the date hereof, the Company has delivered to or made available to Parent a true and complete copy of each Leased Real Property Lease. Except as, individually or in the aggregate, would not reasonably be expected to have a Company Material Adverse Effect, (i) each Leased Real Property Lease is in full force and effect and is a valid, binding and legally enforceable obligation of the Company or its Subsidiaries (except as enforceability may be limited by applicable bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar Laws affecting creditors' rights generally and subject, as to enforceability, to general principles of equity), and (ii) neither the Company nor any of its Subsidiaries is, nor, to the Knowledge of the Company, is any other party (in each case, with or without notice or lapse of time, or both) in breach or default under any Leased Real Property Lease.

(c)The Company Owned Real Property and the Company Leased Real Property are referred to collectively herein as the "Company Real Property". Except as has not had and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, (i) each parcel of Company Real Property is in compliance with all existing Laws applicable to such Company Real Property, and (ii) neither the Company nor any of its Subsidiaries has received written notice of any Proceedings in eminent domain,

condemnation or other similar Proceedings that are pending, and to the Company's Knowledge, there are no such Proceedings threatened, affecting any portion of the Company Real Property.

(d)The Company or a Subsidiary of the Company has good and marketable title to, or a valid and binding leasehold or other interest in, all tangible personal property necessary for the conduct of the business of the Company and its Subsidiaries, taken as a whole, as currently conducted, free and clear of all Liens (except for Permitted Liens) except as has not had and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect.

3.15Tax Matters. Except as has not had or would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect:

(a)all Tax Returns that are required by applicable Law to be filed by or with respect to the Company or any of its Subsidiaries have been timely filed (taking into account any extension of time within which to file), and all such Tax Returns are true, complete, and accurate;

(b)each of the Company and its Subsidiaries has timely paid all Taxes (whether or not shown as due and payable by it on any Tax Return) due and payable by it (including any Taxes required by applicable Law to be withheld from amounts owing to, or collected from, any employee, creditor, or other Third Party), other than Taxes for which adequate reserves have been established in accordance with GAAP on the Company SEC Financial Statements;

(c)no deficiencies for Taxes have been asserted or assessed by any Governmental Entity in writing against the Company or any of its Subsidiaries except for deficiencies that have been (i) withdrawn, (ii) settled with no outstanding liability for the Company or any of its Subsidiaries, or (iii) fully satisfied by payment;

(d)there is no ongoing audit, examination, investigation or other proceeding with respect to any Taxes of the Company or any of its Subsidiaries, and neither the Company nor any of its Subsidiaries has received written notice from any Governmental Entity that any such audit, examination, investigation or other proceeding is contemplated or pending;

(e)neither the Company nor any of its Subsidiaries has waived any statute of limitations beyond the date hereof in respect of any Taxes or agreed to any extension of time beyond the date hereof with respect to a Tax assessment or deficiency;

(f)neither the Company nor any of its Subsidiaries is a party to or bound by any Tax allocation or Tax sharing agreement (each a "Tax Sharing Agreement") (other than (i) any customary agreements with customers, vendors, lenders, or lessors entered into in the ordinary course of business and the primary purpose of which is not related to Taxes and (ii) any Tax Sharing Agreement the only parties to which are the Company and its Subsidiaries);

(g)neither the Company nor any of its Subsidiaries has constituted a "distributing corporation" or a "controlled corporation" (within the meaning of Section 355(a)(1)(A) of the Code) in a distribution of stock intended to qualify for tax-free

treatment under Section 355(a) of the Code (or any similar provision of state, local, or non-U.S. Law) in the two years prior to the date of this Agreement;

(h)neither the Company nor any of its Subsidiaries (i) is or has been a member of an affiliated group filing a U.S. consolidated federal income Tax Return (other than a group the common parent of which is the Company or any of its Subsidiaries) or (ii) has any liability for the Taxes of any Person (other than the Taxes of the Company or any of its Subsidiaries) under Treasury Regulations Section 1.1502-6 (or any analogous or similar state, local or non-U.S. Law) or as a transferee or successor or by contract (other than any customary agreements with customers, vendors, lenders, or lessors entered into in the ordinary course of business and the primary purpose of which is not related to Taxes);

(i)neither the Company nor any of its Subsidiaries will be required to include any item of income in, or exclude any item of deduction from, taxable income for any taxable period (or portion thereof) ending after the Closing Date as a result of any: (i) change in method of accounting for a taxable period ending on or prior to the Closing Date; (ii) "closing agreement" as described in Section 7121 of the Code (or any analogous or similar state, local or non-U.S. Law) executed prior to the Closing; (iii) installment sale or open transaction disposition made prior to the Closing; (iv) prepaid amount received prior to the Closing; or (v) application of Section 965 of the Code;

(j)there are no Liens for Taxes upon any property or assets of the Company or its Subsidiaries, except for Permitted Liens;

(k)neither the Company nor any of its Subsidiaries has a pending request for, or has entered into or received, any private letter ruling, or written technical advice with or from any Governmental Entity with respect to Taxes or Tax Returns of the Company or any of its Subsidiaries;

(l)within the last three (3) years, neither the Company nor any of its Subsidiaries has a pending request for, or has entered into or received, any administrative relief with or from any Governmental Entity with respect to Taxes or Tax Returns of the Company or any of its Subsidiaries;

(m)each of the Company and its Subsidiaries has complied with all applicable Laws relating to the withholding of Taxes;

(n)each of the Company and its Subsidiaries has properly and timely documented its transfer pricing methodology in compliance with Section 482 of the Code and the Treasury Regulations promulgated thereunder (and any similar provision of state, local or non-US Tax Law);

(o)within the last three (3) years, no written claim has been made by a Governmental Entity in a jurisdiction where the Company or any of its Subsidiaries does not file a Tax Return that the Company or any Subsidiary is or may be subject to Tax by, or required to file a Tax Return in, such jurisdiction; and

(p)neither the Company nor any of its Subsidiaries has entered into any "listed transaction" within the meaning of Treasury Regulations Section 1.6011-4(b)(2).

3.16Material Contracts.

(a)Except as set forth on Section 3.16(a) of the Company Disclosure Schedule or Contracts described in clause (xii)(B) below, as of the date hereof, none of the Company or any of its Subsidiaries is a party to or bound by any:

(i)(A) Contract relating to indebtedness for borrowed money or to mortgaging, pledging or otherwise placing a Lien on any material portion of their assets or (B) Contract relating to any factoring, supplier, trade or vendor financing or (C) Contract under which it has advanced or loaned any other Person (other than the Company or any of its Subsidiaries) amounts exceeding, in the aggregate, $25,000,000;

(ii)guaranty of any financial obligation made on behalf of any Person other than the Company or any of its Subsidiaries or other guaranty in amounts exceeding, in the aggregate, $25,000,000;

(iii)settlement, conciliation or similar agreement with any Governmental Entity or pursuant to which the Company or any of its Subsidiaries will be required, after the date of this Agreement, to satisfy any material monetary or non-monetary obligations;

(iv)lease or agreement under which the Company or any of its Subsidiaries is lessee or lessor of, or holds or operates any material personal property owned by any other party, or permits any Third Party to hold or operate any material personal property owned or controlled by the Company or any of its Subsidiaries, in each case for which the annual rental exceeds $5,000,000;

(v)agreements (A) relating to any pending or completed material business merger, acquisition or divestiture by the Company or any of its Subsidiaries within the last three (3) years, (B) pursuant to which any of the Company or any of its Subsidiaries has remaining material obligations or liabilities or (C) giving any person the right to acquire any material equity interests, assets or businesses of the Company or any of its Subsidiaries after the date hereof;

(vi)Contract concerning the formation, creation, operation, management, ownership, governance or control of any Company Joint Venture, in each case that is material to the business of the Company and its Subsidiaries, taken as a whole;

(vii)Contract pursuant to which (A) the Company or any of its Subsidiaries receives a license, covenants not to sue or has any other right to use or exploit a Third Party's Intellectual Property, in each case, that is material to the business of the Company and its Subsidiaries, taken as a whole (other than non-exclusive licenses of "shrink-wrap", "click-wrap" and "off-the-shelf" software, and non-exclusive licenses of other software that is generally commercially available with one-time or aggregate annual license, maintenance, support and other fees of $2,000,000 or less) or (B) the Company or any of its Subsidiaries

grants to any Third Party a license, covenant not to sue or other right to use or exploit any material Company Intellectual Property (other than non-exclusive licenses entered into in the ordinary course of business);

(viii)Contract which (A) expressly limits or prohibits the Company or any of its affiliates from competing or freely engaging in business anywhere in the world, (B) purports to restrict the ability of Parent or its Subsidiaries (including the Surviving Corporation and its Subsidiaries) following the Effective Time to compete in any line of business or (C) contains any "most favored nation," exclusivity or similar covenants that would restrict future business activity of the Company or any of its affiliates following the Effective Time;

(ix)Contract with any Governmental Entity where (A) the Governmental Entity is the customer and (B) such Contract involves annual payments in excess of $5,000,000;

(x)collective bargaining agreement, neutrality agreement, card check agreement or any other Contract with any trade union, works council or other labor organization affecting any employee of the Company or any of its Subsidiaries;

(xi)Contract that is between the Company or any of its Subsidiaries, on the one hand, and any director or executive officer of the Company or its Subsidiaries or any person beneficially owning 5% or more of the outstanding Shares, on the other hand (except for any Company Benefit Plan);

(xii)(A) standard terms and conditions or similar agreements governing Contracts with (1) each of the ten (10) largest customers (measured by approximate dollar volume of sales by the Company and its Subsidiaries to such customers) of the Company and its Subsidiaries, in each case, for the 12-month period ending December 31, 2021 and (2) the ten (10) largest suppliers (measured by approximate dollar volume of purchases by the Company and its Subsidiaries from such suppliers) of the Company and its Subsidiaries, in each case, for the 12-month period ending December 31, 2021 and (B) any other Contracts with such largest customers or largest suppliers; or

(xiii)any other Contract which requires aggregate payments to or by the Company or its Subsidiaries in excess of $50,000,000;

(b)The Company has delivered or made available to Parent or its Representatives true and correct copies in all material respects of all written Contracts and plans that are required to be set forth on Sections 3.16(a) of the Company Disclosure Schedule (collectively, the "Company Material Contracts") (other than the Company Material Contracts described in Section 3.16(a)(xii)(B); provided that for the avoidance of doubt all Contracts described in Section 3.16(a)(xii)(B) shall be deemed Company Material Contracts), together with all material amendments, waivers or other changes thereto (but subject, in each case, to redactions of pricing and other competitively sensitive information to the extent required by Antitrust Law).

(c)Except as would not, individually or in the aggregate, reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole, (i) each of the

Company and its Subsidiaries have performed in all material respects all material obligations required to be performed by it and is not in material default under, in material breach of, nor in receipt of any written claim of material default or material breach under, any Company Material Contract, (ii) no event has occurred which, with the passage of time or the giving of notice or both, would result in a material default or material breach by the Company or any of its Subsidiaries under any Company Material Contract and (iii) as of the date hereof, to the Knowledge of the Company, there is no material breach or threatened material breach by the other parties to any Company Material Contract. Except as would not, individually or in the aggregate, reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole, and except for those that have terminated or expired in accordance with their terms, all of the Company Material Contracts are valid and in full force and effect and constitute legal, valid and binding obligations of the Company or its Subsidiaries party thereto, and are enforceable against the Company or its Subsidiaries party thereto in accordance with their respective terms (except as enforceability may be limited by applicable bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar Laws affecting creditors' rights generally and subject, as to enforceability, to general principles of equity), and, to the Knowledge of the Company, constitute legal, valid and binding obligations of the other party or parties thereto, enforceable against such party or parties in accordance with their respective terms (except as enforceability may be limited by applicable bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar Laws affecting creditors' rights generally and subject, as to enforceability, to general principles of equity).

3.17 International Trade and Anti-Corruption.

(a) Neither the Company nor any its Subsidiaries, nor any of their respective officers, directors or employees, nor to the Knowledge of the Company, any Person acting on behalf of any of the Company or its Subsidiaries, is currently, or has been in the last five (5) years: (i) a Sanctioned Person; (ii) organized, residing or located in a Sanctioned Country; (iii) engaging in any dealings or transactions with any Sanctioned Person or in any Sanctioned Country, to the extent such activities violate applicable Sanctions Laws or Ex-Im Laws; or (iv) otherwise in material violation of applicable Sanctions Laws, Ex-Im Laws, or U.S. anti-boycott Laws (collectively, "Trade Control Laws").

(b) Neither the Company nor any of its Subsidiaries have any material outstanding liability under anti-dumping duty Orders or countervailing duty Orders, including any potential liability under preliminary determinations.

(c) In the last five (5) years, neither the Company nor any of its Subsidiaries, nor any of their respective officers, directors or employees, nor to the Knowledge of the Company, any Person acting on behalf of or associated with the Company or any of its Subsidiaries, has at any time (i) made or accepted any unlawful payment or given, offered, promised, or authorized or agreed to give or receive, any money, advantage or thing of value, directly or indirectly, to or from any Government Official or other Person in violation of Anti-Corruption Laws; (ii) used any corporate funds for unlawful political or charitable contributions, gifts, hospitality, travel, entertainment or other unlawful expenses relating to political activity; or (iii) has otherwise been in violation of any Anti-Corruption Laws in any respect.

(d)During the five (5) years prior to the date hereof, neither the Company nor any of its Subsidiaries has received from any Governmental Entity any notice, inquiry, or internal or external allegation; been the subject of any investigation by any Governmental Entity; made any voluntary or involuntary disclosure to a Governmental Entity; or conducted any internal investigation or audit, in each case (i)-(iv), relating to or arising from any actual or potential violation or wrongdoing related to Trade Control Laws or Anti-Corruption Laws.

(e)During the past five (5) years, neither the Company nor any of its Subsidiaries has received a civil investigative demand, claim notice, preservation letter or any investigative subpoena, notice, target letter, or equivalent from any Governmental Entity relating to any alleged material violations of Antitrust Laws by the Company or any of its Subsidiaries.

3.18Insurance. Section 3.18 of the Company Disclosure Schedule sets forth a correct and complete list of all material Insurance Policies, including material occurrence-based policies in force. The Company has made available to Parent true and correct copies of such Insurance Policies prior to the date hereof. Except as, individually or in the aggregate, would not reasonably be expected to have a Company Material Adverse Effect, (a) all material Insurance Policies maintained by the Company and its Subsidiaries are in full force and effect (except as enforceability may be limited by applicable bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar Laws affecting creditors' rights generally and subject, as to enforceability, to general principles of equity) and provide insurance in such amounts and against such risks as the management of the Company reasonably has determined to be prudent or as is required by Law or regulation and (b) neither the Company nor any of its Subsidiaries is in breach of or default under any material Insurance Policies. There are no material claims under any of the Insurance Policies for which coverage has been denied or disputed by the applicable insurance carrier (other than a customary reservation of rights notice).

3.19Intellectual Property; Privacy.

(a)Section 3.19(a) of the Company Disclosure Schedule sets forth a list of all (i) issued patents and pending patent applications, (ii) registered trademarks and pending trademark applications, (iii) registered copyrights, and (iv) registered domain names, in each case that are included in the Company Intellectual Property (collectively, the "Company Registered IP"). Each item of Company Registered IP is subsisting, and has not been abandoned or cancelled. Except as would not reasonably be expected to, individually or in the aggregate, result in material liability to the Company and its Subsidiaries, taken as a whole, there are no suits or actions pending or, to the Company's knowledge, threatened against any issued or registered Company Registered IP.

(b)The Company and its Subsidiaries are the sole and exclusive owner of each item of material Company Intellectual Property, free and clear of any Liens (other than Permitted Liens). The Company and its Subsidiaries own or otherwise have sufficient rights in and to, and immediately after the Closing will continue to own or have sufficient rights in and to, all Intellectual Property that are used in or necessary for the business of the Company and its Subsidiaries as currently conducted, except as would not reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole.

(c)There are no Proceedings currently pending or, to the Company's knowledge, threatened against the Company or any of its Subsidiaries in the past three years alleging that the Company or any of its Subsidiaries has infringed, misappropriated, or violated any Third Party's Intellectual Property, in each case that would reasonably be expected to result in material liability to the Company and its Subsidiaries, taken as a whole. The operation of the business of the Company and its Subsidiaries as currently conducted and as conducted in the past three years, does not infringe, misappropriate, or violate, and has not infringed, misappropriated or violated, the Intellectual Property of any Third Party, except as has not resulted and would not reasonably be expected to, individually or in the aggregate, result in any material liability to the Company and its Subsidiaries, taken as a whole. To the knowledge of the Company, no Third Party is currently infringing, misappropriating or violating any Company Intellectual Property, except as would not reasonably be expected to be, individually or in the aggregate, material to the Company and its Subsidiaries, taken as a whole.

(d)During the last three (3) years, (i) the Company and its Subsidiaries have taken steps that are commercially reasonable under the circumstances, including reasonable security measures, to protect and maintain the secrecy, confidentiality, and value of all material trade secrets owned or used by the Company or any its Subsidiaries and (ii) to the knowledge of the Company, there have been no material unauthorized uses or disclosures of any such trade secrets. The Company and its Subsidiaries have taken commercially reasonable steps to execute appropriate confidentiality agreements and intellectual property and work product assignments with employees, independent contractors, and other Persons who have been involved in the development or creation of any Intellectual Property that is purported to be owned by, and that is material to the conduct of the business of, the Company or any of its Subsidiaries taken as a whole pursuant to which all right, title and interest of such Persons in and to such Intellectual Property has been assigned to the Company or its applicable Subsidiary (to the extent that ownership of such Intellectual Property is not vested in the Company or its applicable Subsidiary by operation of law). To the Company's knowledge, except as would not be material to the Company, no such current or former employees, independent contractors, or other Persons are in breach of any such agreements.

(e)Except as has not resulted and would not reasonably be expected to result in material liability to the Company and its Subsidiaries, taken as a whole, the information technology systems (in each case, including all computer hardware, software, firmware, process automation and telecommunications systems) owned, leased or licensed by the Company and its Subsidiaries (the "Systems") (i) operate and perform in all material respects as required by the Company and its Subsidiaries, and have not malfunctioned or failed during the last three years (other than temporary problems arising in the ordinary course of business that did not materially disrupt the operations of the Company and its Subsidiaries, taken as a whole, and which have been remedied in all material respects), and (ii) to the knowledge of the Company, are free from any viruses, worms, Trojan horses, spyware or other malicious code. The Company and its Subsidiaries have implemented commercially reasonable data backup, data storage, system redundancy, and disaster avoidance and recovery procedures, as well as a commercially reasonable business continuity plan.

(f)Except as has not resulted and would not reasonably be expected to result in material liability to the Company and its Subsidiaries, taken as a whole, the Company

and its Subsidiaries (x) are currently in compliance with, and in the last three years have complied with, all Data Security Requirements and (y) have security measures in place that are reasonably designed to protect Sensitive Data under their possession or control from any unauthorized access, use or disclosure. In the last three years, neither the Company nor any of its Subsidiaries have (i) to the knowledge of the Company, experienced any incident in which Sensitive Data was or may have been stolen or improperly accessed, used or disclosed, including any actual or alleged data security breaches or unauthorized access or use of any of the Systems, or (ii) received any written claims, notices or complaints from any Person with respect to the data privacy and data security practices or procedures of, or compliance with the Data Security Requirements by, the Company or any of its Subsidiaries, in each case except as would not reasonably be expected to result in material liability to the Company and its Subsidiaries, taken as a whole.

3.20Affiliate Transactions. Neither the Company nor any of its Subsidiaries is a creditor or debtor to, or party to any Contract or transaction with, any holder of five percent (5%) or more of the Shares or any present or former director, executive officer or affiliate of the Company or any of its Subsidiaries, or to any "immediate family member" (within the meaning of Item 404 of Regulation S-K promulgated by the SEC) of any of the foregoing, or has engaged in any transaction with any of the foregoing within the twelve (12) months preceding the date of this Agreement (each, an "Affiliate Contract") (except for employment or compensation agreements or arrangements with directors, officers and employees made in the ordinary course consistent with past practice), and which has not been so disclosed in the Company SEC Documents.

3.21Broker's Fees. Except for the fees and expenses of Lazard Frères & Co. LLC, the Company's financial advisors, neither the Company nor any of its Subsidiaries nor any of their respective officers or directors on behalf of the Company or such Subsidiaries has employed any financial advisor, broker or finder or incurred any liability for any financial advisory, broker's fees, commissions or finder's fees in connection with any of the Transactions. Prior to the date hereof, the Company has provided a complete copy of Lazard Frères & Co. LLC's engagement letters (and any amendments thereto) to Parent.

3.22Opinion of Financial Advisor. Lazard Frères & Co. LLC has delivered to the Company Board its opinion in writing or orally, in which case, such opinion will be subsequently confirmed in writing, to the effect that, as of the date thereof and based upon and subject to the factors and assumptions set forth therein, the consideration to be received by the holders of Shares pursuant to this Agreement is fair from a financial point of view to such holders.

3.23No Other Representations or Warranties. The Company acknowledges that neither Parent nor Merger Sub nor any Person on their behalf makes, and the Company has not relied upon, any express or implied representation or warranty with respect to Parent or Merger Sub or with respect to any other information provided to the Company in connection with the Transactions including the accuracy or completeness thereof, other than the representations and warranties contained in Article 4 or in the certificate provided pursuant to Section 6.3(d) of this Agreement. The Company acknowledges and agrees that, to the fullest extent permitted by applicable Law, Parent and Merger Sub and their respective affiliates, stockholders, controlling

Persons or Representatives shall not have any liability or responsibility whatsoever to the Company, its Subsidiaries or their respective affiliates, stockholders, controlling Persons or Representatives on any basis (including in contract or tort, under federal or state securities Laws or otherwise) based upon any information (including any statement, document or agreement delivered pursuant to this Agreement) or statements made (or any omissions therefrom), to the Company, its Subsidiaries or any of their respective affiliates, stockholders, controlling Persons or Representatives, except as and only to the extent expressly set forth in Article 4 or in the certificate provided pursuant to Section 6.3(d) of this Agreement.

ARTICLE 4
REPRESENTATIONS AND WARRANTIES OF PARENT AND MERGER SUB

Except as set forth in the disclosure schedule delivered concurrently with the execution of this Agreement by Parent and Merger Sub to the Company (the "Parent Disclosure Schedule", and together with the Company Disclosure Schedule, the "Disclosure Schedule"), Parent and Merger Sub hereby represent and warrant to the Company as of the date hereof and as of the Closing Date that:

4.1Corporate Organization. Each of Parent and Merger Sub is a corporation or other entity duly organized, validly existing and, to the extent applicable, in good standing under the laws of the jurisdiction of its organization and has the requisite corporate or other entity power and authority to own or lease all of its properties and assets and to carry on its business as it is now being conducted. Each of Parent and Merger Sub is duly licensed or qualified to do business in each jurisdiction in which the nature of the business conducted by it or the character or location of the properties and assets owned or leased by it makes such licensing or qualification necessary, except where the failure to be so licensed or qualified, has not had and would not reasonably be expected to have, individually or in the aggregate, a Parent Material Adverse Effect.

4.2Authority, Execution and Delivery; Enforceability. Each of Parent and Merger Sub has all necessary power and authority to execute and deliver this Agreement, to perform and comply with each of its obligations under this Agreement and to consummate the Transactions applicable to such party. The execution and delivery by each of Parent and Merger Sub of this Agreement, the performance and compliance by Parent and Merger Sub with each of its obligations herein and the consummation by Parent and Merger Sub of the Transactions applicable to it have been duly authorized by all necessary limited liability company action on the part of Parent and Merger Sub, and no other corporate or limited liability company proceedings on the part of Parent or Merger Sub and no stockholder votes are necessary to authorize this Agreement or the consummation by Parent and Merger Sub of the Transactions to which it is a party. Each of Parent and Merger Sub has duly and validly executed and delivered this Agreement and, assuming the due authorization, execution and delivery by the Company of this Agreement, this Agreement constitutes Parent's and Merger Sub's legal, valid and binding obligation, enforceable against each of Parent and Merger Sub in accordance with its terms, except as limited by Laws affecting the enforcement of creditors' rights generally or by general equitable principles (whether considered in a proceeding at law or in equity).

4.3No Conflicts.

(a)The execution and delivery of this Agreement by Parent and Merger Sub, does not and will not, and the performance of this Agreement by Parent and Merger Sub will not, (i) conflict with or violate any provision of the certificate of incorporation, bylaws or similar organizational documents of Parent or Merger Sub, (ii) assuming that all consents, approvals, authorizations and permits described in Section 4.3(b) have been obtained and all filings and notifications described in Section 4.3(b) have been made and any waiting periods thereunder have terminated or expired, conflict with or violate any Law applicable to Parent, Merger Sub or any other Subsidiary of Parent (each a "Parent Subsidiary" and, collectively, the "Parent Subsidiaries"), or by which any property or asset of Parent or any Parent Subsidiary is bound or affected or (iii) require any consent or approval under, result in any breach of or any loss of any benefit under, constitute a change of control or default (or an event which with notice or lapse of time or both would become a default) under or give to others any right of termination, vesting, amendment, acceleration or cancellation of, or result in the creation of a Lien on any property or asset of Parent or any Parent Subsidiary, including Merger Sub, pursuant to, any Contract or Permit to which Parent or any Parent Subsidiary is a party, except, with respect to clauses (ii) and (iii), for any such conflicts, violations, breaches, defaults or other occurrences which would not, individually or in the aggregate, reasonably be expected to have a Parent Material Adverse Effect.

(b)The execution and delivery of this Agreement by Parent and Merger Sub does not and will not, and the consummation by Parent and Merger Sub of the Transactions and compliance by Parent and Merger Sub with any of the terms or provisions hereof will not, require any consent, approval, authorization or permit of, or filing with or notification to, any Governmental Entity, except (i) under the Exchange Act and the rules and regulations of the NYSE, (ii) as required or advisable under any applicable Antitrust Laws or in connection with any FDI Approval, (iii) the filing and recordation of the Certificate of Merger as required by the DGCL and (iv) where failure to obtain such consents, approvals, authorizations or permits, or to make such filings or notifications would not, individually or in the aggregate, reasonably be expected to have a Parent Material Adverse Effect.

4.4Legal Proceedings. As of the date of this Agreement, (a) there is no Proceeding pending, or, to the Knowledge of Parent, threatened that, individually or in the aggregate, has had or would reasonably be expected to have a Parent Material Adverse Effect, and (b) neither Parent nor Merger Sub is subject to any outstanding Order that, individually or in the aggregate, has had or would reasonably be expected to have a Parent Material Adverse Effect or that challenges the validity or propriety of the Merger.

4.5Financial Capability.

(a)As of the date of this Agreement, Parent has received (i) an executed equity commitment letter, dated as of the date hereof (the "Equity Commitment Letter"), from the Guarantors, pursuant to which the Guarantors have committed to provide equity financing in connection with the Transactions in the amount set forth therein, subject to terms and conditions set forth therein (the "Equity Financing"), which Equity Commitment Letter expressly provides that the Company is a third-party beneficiary thereto and entitled to

enforce such commitments subject to the terms and conditions set forth therein, and (ii) an executed debt commitment letter, dated as of the date hereof (including all exhibits, schedules and annexes thereto and any associated fee letter, the "Debt Financing Commitment Letter" and, together with the Equity Commitment Letter, the "Commitment Letters"), from the Debt Financing Sources, pursuant to which the Debt Financing Sources have committed, subject to the terms and conditions set forth therein, to provide to Parent the amount of debt financing set forth therein (the "Debt Financing" and, together with the Equity Financing, the "Financing"), in each case, solely for the Financing Purposes. A true and complete copy of each Commitment Letter (other than the fee letter referred to in the Debt Financing Commitment Letter, which is addressed below) has been previously provided to the Company. All fees (if any) required to be paid under the Commitment Letters on or prior to the date hereof have been paid in full. As of the date hereof, each Commitment Letter is in full force and effect and is a legal, valid and binding obligation of Parent and, to the Knowledge of Parent, the other parties thereto, in accordance with its terms. As of the date hereof, none of the Commitment Letters have been amended, modified, withdrawn, terminated or rescinded in any respect. To the Knowledge of Parent, no amendment or modification to, or withdrawal, termination or rescission of, any Commitment Letter is currently contemplated (other than to add lenders, lead arrangers, bookrunners, syndication agents or similar entities who had not executed the Debt Financing Commitment Letter as of the date of this Agreement). Assuming (i) the accuracy in all material respects of the representations and warranties set forth in Article 3 and (ii) the performance by the Company and its Subsidiaries of the covenants and agreements contained in this Agreement in all material respects, the aggregate proceeds contemplated by the Commitment Letters will be sufficient for Parent to consummate the transactions contemplated by this Agreement, including (A) paying the Merger Consideration, (B) paying all out-of-pocket expenses incurred by Parent and Merger Sub in connection with the transactions contemplated by this Agreement, (C) paying any indebtedness required to be repaid, refinanced, redeemed, retired, cancelled or terminated in connection with the consummation of the Merger and (D) satisfying all of its other obligations under this Agreement and the other agreements and instruments contemplated hereby (collectively, the "Financing Purposes"). Parent and Merger Sub understand and acknowledge that under the terms of this Agreement, the obligations of Parent and Merger Sub to consummate the Transactions is not in any way contingent upon or otherwise subject to Parent's or Merger Sub's consummation of any financing arrangements, Parent or Merger obtaining of any financing or the availability, grant, provision or extension of any financing to Parent or Merger Sub. Except for the fee letter referred to in the Debt Financing Commitment Letter (a true and complete copy of which fee letter has been provided to the Company, with only fee amounts, "market flex" provisions, "securities demand" provisions, pricing terms, pricing caps and other commercially sensitive terms redacted (none of which could adversely affect the conditionality, enforceability, availability or termination of the Financing or reduce the aggregate principal amount of the Financing below the amount required to pay the Financing Purposes and to the extent that any such redacted term shall be modified in such a way to impact the conditionality of the Financing or reduce the aggregate principal amount of the Financing below the amount required to pay the Financing Purposes, then such modified term shall be disclosed to the Company)) and customary engagement letters and fee credit letters related to the Debt Financing (which engagement letters and fee credit letters do not relate to any terms that may adversely affect the conditionality, enforceability, availability or termination of the Financing or reduce the aggregate principal amount of the Financing below the amount required to pay the Financing

Purposes), as of the date hereof, there are no side letters or other agreements or contracts or arrangements related to the funding or investing, as applicable, of the Financing other than as expressly set forth in the applicable Commitment Letters. Neither the fee letter referred to in the Debt Financing Commitment Letter nor any other Contract between the Guarantors or the Debt Financing Sources, on the one hand, and Parent or any of its affiliates, on the other hand, contains any conditions precedent or other contingencies (other than as set forth in the applicable Commitment Letters) (x) related to the funding of the full amount of the Financing or any provisions that could reduce the aggregate amount of the Financing set forth in any Commitment Letter, in each case, below the amount required to pay the Financing Purposes or (y) that could otherwise adversely affect the conditionality, enforceability or availability of any Commitment Letter with respect to all or any portion of the Financing required to pay the Financing Purposes. As of the date hereof, neither Parent nor Merger Sub (x) is in breach of any of the terms or conditions set forth in the Commitment Letters and, to the Knowledge of the Parent, no event has occurred which, with or without notice, lapse of time or both, would constitute a default or breach on the part of Parent or Merger Sub under any term or condition of the Commitment Letters or (y) has any reason to believe that any of the conditions to the Financing would not be satisfied on a timely basis or that the Financing would not be available to Parent on the Closing Date in at least the amount required to pay the Financing Purposes.

(b)Concurrently with the execution of this Agreement, the Guarantors have delivered to the Company the duly executed Guaranty. The Guaranty is in full force and effect, has not been amended or modified, and is a legal, valid, binding and enforceable obligation of the Guarantors. No event has occurred which (with or without notice, lapse of time or both) would constitute a default on the part of the Guarantors under the Guaranty.

4.6Proxy Statement. None of the information supplied or to be supplied by Parent or Merger Sub for inclusion or incorporation by reference in the Proxy Statement will, at the date that the Proxy Statement or any amendment or supplement thereto is mailed to holders of Shares and at the time of the Company Meeting, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances in which they are made, not misleading. For the avoidance of doubt, no representation or warranty is made by Parent or Merger Sub with respect to any statements made or incorporated by reference in the Proxy Statement based on information relating to the Company or any of its Subsidiaries or to statements made therein based on information supplied by or on behalf of Company specifically for inclusion or incorporation by reference therein.

4.7Ownership of Company Capital Stock. None of Parent, Merger Sub or any Parent Subsidiary beneficially owns any Shares or other Equity Interests in the Company as of the date hereof. Neither Parent nor Merger Sub is, nor at any time during the last three (3) years has it been, an "interested stockholder" of the Company as defined in Section 203 of the DGCL (other than as contemplated by this Agreement).

4.8Solvency. Assuming (i) the accuracy in all material respects of the representations and warranties set forth in Article 3 and (ii) the performance by the Company and its Subsidiaries of the covenants and agreements contained in this Agreement in all material respects, after giving effect to the consummation of the Merger, the Surviving Corporation will be Solvent. "Solvent" when used with respect to any Person, means that as of any date of

determination (i) the fair value of the assets of such Person and its Subsidiaries on a consolidated basis, at a fair valuation, will exceed the debts and liabilities, direct, subordinated, contingent or otherwise, of such Person and its subsidiaries on a consolidated basis, (ii) the present fair salable value of the property of such Person and its Subsidiaries on a consolidated basis will be greater than the amount that will be required to pay the probable liability of such Person and its Subsidiaries on a consolidated basis on their debts and other liabilities, direct, subordinated, contingent or otherwise, as such debts and other liabilities become absolute and matured, (iii) such Person and its Subsidiaries on a consolidated basis will be able to pay their debts and liabilities, direct, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured and (iv) such Person and its Subsidiaries on a consolidated basis will not have unreasonably small capital with which to conduct the businesses in which they are engaged as such businesses are now conducted and are proposed to be conducted following the Closing Date.

4.9Ownership of Merger Sub. All of the outstanding Equity Interests of Merger Sub have been duly authorized and validly issued. All of the issued and outstanding Equity Interests of Merger Sub are, and at the Effective Time will be, owned directly or indirectly by Parent. Merger Sub was formed solely for purposes of the Merger and, except for matters incident to formation and execution and delivery of this Agreement and the performance of the Transactions, has not prior to the date hereof engaged in any business or other activities.

4.10Certain Arrangements. Other than this Agreement, as of the date hereof, none of Parent, Merger Sub or any of their affiliates (except, with respect to clause (a) below, non-controlled affiliates) is party to any agreement, arrangement or binding understanding (a) with any director or officer of the Company or its Subsidiaries relating to the Transactions or the operations of the Surviving Corporation after the Effective Time or (b) pursuant to which any stockholder of the Company would be entitled to receive consideration of a different amount or nature than the Merger Consideration or pursuant to which any stockholder of the Company agrees to vote against any Acquisition Proposal. As of the date hereof, none of Parent, Merger Sub or any of their affiliates is party to any agreement, arrangement or understanding that would be required to be disclosed with respect to the Company under Item 1005(e) of Regulation M-A under the Exchange Act.

4.11Brokers. Except for the fees and expenses of Rothschild & Co US Inc., Parent's financial advisor, and except for any fees and expenses that may be payable in connection with the Debt Financing or the India MTO, neither Parent nor any Parent Subsidiary nor any of their respective officers or directors on behalf of Parent or such Parent Subsidiary has employed any financial advisor, broker or finder or incurred any liability for any financial advisory, broker's fees, commissions or finder's fees in connection with any of the Transactions.

4.12No Other Representations and Warranties. Each of Parent and Merger Sub has conducted its own independent review and analysis of the business, operations, assets, Intellectual Property, technology, liabilities, results of operations, financial condition and prospects of the Company and its Subsidiaries and each of them acknowledges that it and its Representatives have received access to books and records, facilities, equipment, contracts and other assets of the Company and its Subsidiaries, and that it and its Representatives have had an opportunity to meet with the management of the Company and to discuss the business and assets

of the Company and its Subsidiaries. Each of Parent and Merger Sub acknowledges that neither the Company nor any Person on behalf of the Company makes, and none of Parent or Merger Sub has relied upon, any express or implied representation or warranty with respect to the Company or any of its Subsidiaries or with respect to any other information provided to Parent or Merger Sub in connection with the Transactions including the accuracy or completeness thereof other than the representations and warranties contained in Article 3 or in the certificate provided pursuant to Section 6.2(c) of this Agreement. Each of Parent and Merger Sub acknowledges and agrees that, to the fullest extent permitted by applicable Law, the Company and its Subsidiaries, and their respective affiliates, stockholders, controlling Persons or Representatives shall not have any liability or responsibility whatsoever to Parent, Merger Sub, any Parent Subsidiary, or their respective affiliates, stockholders, controlling Persons or Representatives on any basis (including in contract or tort, under federal or state securities Laws or otherwise) based upon any information (including any statement, document or agreement delivered pursuant to this Agreement and any financial statements and any projections, estimates or other forward-looking information) provided or made available (including in any data rooms, management presentations, information or descriptive memorandum or supplemental information), or statements made (or any omissions therefrom), to Parent, Merger Sub, any Parent Subsidiary, or any of their respective affiliates, stockholders, controlling Persons or Representatives, except as and only to the extent expressly set forth in Article 3 or in the certificate provided pursuant to Section 6.2(c) of this Agreement.

ARTICLE 5
COVENANTS

5.1 Conduct of Business by the Company Pending the Closing. From the date hereof until the earlier of the Closing Date and the termination of this Agreement in accordance with Article 7, except (1) as expressly contemplated hereunder, (2) as required by applicable Law, (3) if Parent shall have consented in advance in writing (such consent not to be unreasonably withheld, conditioned or delayed), (4) solely with respect to clause (A) below, for any Permitted Actions so long as the Company notifies Parent reasonably promptly of such actions and considers any reasonable requests of Parent with respect thereto, or (5) as set forth on Section 5.1 of the Company Disclosure Schedule, (A) the Company shall, and shall cause its Subsidiaries to, use reasonable best efforts to (x) conduct its operations in the ordinary course of business consistent with past practice (including with respect to the Company Joint Ventures) and (y) preserve the goodwill and organization of the Company and its Subsidiaries and the Company's and its Subsidiaries' relationships with lenders, customers, suppliers, vendors, partners, officers, employees, consultants and other Persons having business relations with the Company and its Subsidiaries and (B) the Company shall not, and shall cause its Subsidiaries not to:

(a) issue, sell, distribute, assign, transfer, grant, pledge, hypothecate, set aside, dispose of or otherwise encumber any shares of capital stock of, or other Equity Interests in, the Company or any of its Subsidiaries or any class, or securities convertible into, or exchangeable or exercisable for, any shares of such capital stock or other Equity Interests, or any options, warrants or other rights of any kind to acquire any shares of such capital stock or other Equity Interests or such convertible or exchangeable securities of the Company or any of its

Subsidiaries, other than the issuance of Shares upon the settlement of Company Awards outstanding as of the date hereof in accordance with their terms;

(b)merge, combine or consolidate the Company or any of its Subsidiaries with any Person;

(c)acquire any material assets (other than acquisitions of inventory held for sale in the ordinary course of business) or any other Person or material business of any other Person (whether by merger or consolidation, acquisition of stock or assets or by formation of a joint venture or otherwise) or make any investment in any Person, other than an investment in any wholly owned Subsidiary of the Company, in each case, other than such acquisitions as would not exceed (i) $5,000,000 individually and (ii) $25,000,000 in the aggregate;

(d)effect any recapitalization, reclassification, in-kind dividend, equity split, combination, subdivision or similar change in capitalization;

(e)amend their certificates or articles of incorporation or limited liability company agreements (or equivalent organizational documents);

(f)make, declare or pay any dividend, or make any other distribution on, or directly or indirectly redeem, purchase or otherwise acquire, any shares of its capital stock, or any other securities or obligations convertible (whether currently convertible or convertible only after the passage of time or the occurrence of certain events) into or exchangeable for any shares of its capital stock, except for (i) any dividends or distributions (A) from a wholly owned Subsidiary to another wholly owned Subsidiary or the Company or (B) ratably made to the equityholders of a Company Joint Venture pursuant to the organizational and governing documents of such Person or (ii) the acceptance of Shares, or withholding of Shares otherwise deliverable, to satisfy withholding Taxes incurred in connection with the exercise, vesting and/or settlement of Company Awards;

(g)sell, assign, transfer, mortgage, pledge, lease, license, sublicense or subject to any Lien, charge or otherwise encumber all or any portion of its assets, except (i) Permitted Liens, (ii) sales of products in the ordinary course of business and dispositions of assets that are obsolete, worn out surplus or no longer used and useful in the conduct of the business of the Company and its Subsidiaries, (iii) any factoring arrangements entered into in the ordinary course of business consistent with past practice, (iv) non-exclusive licenses of Intellectual Property in the ordinary course of business consistent with past practice, or (v) any such transactions by and among the Company and its wholly owned Subsidiaries;

(h)abandon or permit to lapse any material Company Intellectual Property;

(i)enter into any Affiliate Contracts;

(j)disclose any material trade secrets or material Confidential Information of the Company and its Subsidiaries to any Person, other than in the ordinary course of business consistent with past practice, to Persons who are under a contractual, legal, or ethical obligation to maintain the confidentiality of such information;

(k)make any capital investment in, or any capital contribution or loan or advance to, or guaranty for the benefit of, any Person that (i) is not a wholly owned Subsidiary (except as required by the organizational documents of the Company's Subsidiaries and Company Joint Ventures in effect as of the date hereof) or (ii) is a wholly owned Subsidiary (except in the ordinary course of business consistent with past practice);

(l)for the calendar year 2022 (including, for the avoidance of doubt, the portion of 2022 elapsed prior to the date of this Agreement), make any capital expenditures or commitments in excess of (x) $50,000,000 in the aggregate prior to December 31, 2022, other than capital expenditures or commitments that are provided for in the Company's budget for calendar year 2022 made available to the Parent and attached to Section 5.1(l) of the Company Disclosure Schedule or (y) $150,000,000 within any fiscal quarter beginning after the date hereof;

(m)(x) incur any indebtedness or guarantee of any indebtedness, other than (i) borrowings under (A) the Company's existing credit facilities (other than its revolving credit facility) or issuances of commercial paper, in each case, for working capital and general corporate purposes in an amount not to exceed $100,000,000 in the aggregate, and (B) the Company's existing revolving credit facility in the ordinary course of business, (ii) indebtedness between or among the Company and its wholly owned Subsidiaries in the ordinary course of business consistent with past practice, (iii) guarantees by the Company or its wholly owned Subsidiaries of indebtedness of the Company or its wholly owned Subsidiaries, which indebtedness is incurred in compliance with this Section 5.1, (iv) indebtedness arising solely from a change in GAAP and (v) indebtedness for an amount not in excess of $25,000,000 in the aggregate outstanding at any one time, or (y) amend in any material respect the terms of any indebtedness for borrowed money existing on the date of this Agreement other than at the request of Parent or Merger Sub;

(n)except to the extent required under any Collective Labor Agreement or Company Benefit Plan set forth on Section 3.12(a) of the Company Disclosure Schedule of the Company Disclosure Schedule in effect as of the date of this Agreement, (i) grant to any current or former director, independent contractor, consultant, employee or officer of the Company or its Subsidiaries any increase in compensation, bonus or fringe or other benefits or grant any type of compensation or benefit to any such Person not previously receiving or entitled to receive such compensation, other than increases in annual rates of base salary for Company employees below the grade level of E-1 in the ordinary course of business in accordance with the Employee Compensation Budget, (ii) grant to any Person any severance, retention, change in control or other termination compensation or benefits or any increase therein, other than severance or termination compensation or benefits with respect to new hires or promotions below the grade level of E-1 who are hired or promoted to either replace vacancies or fill newly created positions, in each case in the ordinary course of business in accordance with the Employee Compensation Budget, (iii) enter into or adopt any Company Benefit Plan or amend any Company Benefit Plan, other than any such amendments to existing Company Benefit Plans that are group health insurance plans or tax-qualified defined contribution retirement plans that are in the ordinary course of business in accordance with the Employee Compensation Budget or actions which do not materially increase, individually or in the aggregate, the annual cost to the Company of the applicable Company Benefit Plan, or (iv) take

any action to cause or accelerate the payment, funding, right to payment or vesting of any compensation or benefits under any existing Company Benefit Plan to Company employees at or above the grade level of E-1, other than (A) as expressly provided pursuant to this Agreement, (B) in the ordinary course of business in accordance with the Employee Compensation Budget or (C) actions which do not materially increase, individually or in the aggregate, the annual cost to the Company of the applicable Company Benefit Plan, in each case of clauses (B) and (C) excluding the acceleration of payment or vesting of Company Awards;

(o)hire any Person or terminate the employment of any employee (other than "for cause"), other than the hiring or terminating of employees below the grade level of E-1 in the ordinary course of business in accordance with the Employee Compensation Budget;

(p)make (other than in the ordinary course of business), change or revoke any material Tax election, make any entity classification election under Treasury Regulations Section 301.7701-3, adopt (other than in the ordinary course of business) or change any Tax accounting period or material Tax accounting method, enter into any "closing agreement" within the meaning of Section 7121 of the Code (or any corresponding or similar provisions of state, local or non-U.S. Tax Law) with a Governmental Entity, settle any claim, audit or assessment with respect to a material amount of Taxes, agree to an extension or waiver of the statute of limitations with respect to a material Tax liability or surrender (other than pursuant to the expiration of an applicable statute of limitations) any right to claim a material refund of Taxes;

(q)settle, release, waive, forgive or compromise any existing or pending or threatened Proceeding if such settlement, release, waiver or compromise (i) with respect to the payment of monetary damages, involves the payment of monetary damages exceeding $10,000,000 individually or $40,000,000 in the aggregate, (ii) with respect to any non-monetary terms and conditions therein, imposes or requires actions that would or would be reasonably expected to be material to the Company and its Subsidiaries, taken as a whole, or (iii) with respect to any Proceeding set forth on Section 5.1(q) of the Company Disclosure Schedule;

(r)(i) terminate or amend in a manner materially adverse to the Company or any of its Subsidiaries, any Company Material Contract, Leased Real Property Lease or Landlord Lease other than (x) any renewal or expiration in the ordinary course of business of such Company Material Contract, Leased Real Property Lease or Landlord Lease and (y) any termination due to a counterparty's default thereunder or breach thereof, in the case of either clause (x) or (y), in accordance with the terms of such Company Material Contract, Leased Real Property Lease or Landlord Lease, as applicable, and, in the case of renewals pursuant to clause (x), on substantially the same terms (subject to customary increases in rent), (ii) enter into any Contract that, if entered into prior to the date of this Agreement, would be a Company Material Contract, or enter into any Leased Real Property Lease or Landlord Lease, but in each case excluding (x) any Contract that is a Company Material Contract solely pursuant to Section 3.16(a)(xii) and that is entered into with a supplier in the ordinary course of business with obligations to pay such supplier less than $50 million annually, (y) any Contract that is a Company Material Contract solely pursuant to Section 3.16(a)(xii) and that is entered into with

any customer in the ordinary course of business that does not require such customer to pay to the Company and its Subsidiaries more than $50 million annually and (z) any purchase order that is a Company Material Contract solely pursuant to Section 3.16(a)(xii) and that is made pursuant to preexisting customer Contracts, or (iii) waive any material right under or release, settle or compromise any material claim under any Company Material Contract, Leased Real Property Lease or Landlord Lease;

(s)(i) modify, extend, or enter into any collective bargaining agreement or other Contract with any labor union, labor organization, works council or group of employees or (ii) recognize or certify any labor union, labor organization, works council, or group of employees of the Company or its Subsidiaries as the bargaining representative for any employees of the Company or its Subsidiaries;

(t)adopt a plan or agreement of complete or partial liquidation, restructuring, reorganization or dissolution of the Company or any of its Subsidiaries, except for the liquidation or dissolution of any dormant Subsidiary;

(u)take, or authorize or consent to be taken, or otherwise knowingly facilitate, any actions by or relating to or taken on behalf of any Company Joint Venture that the Company or its Subsidiaries would be prohibited from taking pursuant to this Section 5.1; or

(v)agree to take, make any commitment to take, or adopt any resolutions in support of, any of the actions prohibited by this Section 5.1.

Without limiting the scope of covenants of the Company set forth in this Section 5.1, the parties hereto acknowledge and agree that (A) nothing contained in this Section 5.1 is intended to give Parent, directly or indirectly, the right to direct the control or operations of the Company or any of its Subsidiaries prior to the Closing and (B) prior to the Closing, subject to this Section 5.1, the Company shall exercise, consistent with the terms and conditions of this Agreement, complete control and supervision over the operations of itself and its Subsidiaries.

5.2Access to Information, Employees and Facilities; Confidentiality.

(a)From the date of this Agreement to the earlier of the Effective Time and the termination of this Agreement in accordance with Article 7, the Company shall, and shall cause each of its Subsidiaries to, (w) provide Parent and Merger Sub and their respective Representatives with reasonable access during normal business hours and upon reasonable notice to the offices, properties, facilities, books and records and officers, employees and other personnel of the Company and its Subsidiaries, (x) promptly furnish to Parent such financial, operating and other data and information which is routinely prepared for the Chief Executive Officer, the Chief Operating Officer (in his capacity as such) or the Chief Financial Officer of the Company by the Company or its Subsidiaries in the ordinary course of business and reasonably requested by Parent, including monthly management accounts and interim financial reports, (y) use reasonable efforts to provide such cooperation and assistance as Parent may reasonably request in connection with the matters specified in Section 5.2 of the Company Disclosure Schedule and (z) (1) provide Parent and Merger Sub and their respective

Representatives with such financial, accounting, organizational and tax information as is reasonably requested (and reasonably available to the Company) regarding possible alternative or supplemental structures (including internal restructurings and distributions by the Company or its Subsidiaries) that may be desirable to Parent in connection with the acquisition of the Company and its Subsidiaries or regarding the tax consequences of the Merger and (2) reasonably consider Parent's written proposals of such possible alternative or supplemental structures (including internal restructurings and distributions by the Company or its Subsidiaries) in good faith, provided that such structures do not impede or delay the Closing or change the Merger Consideration; provided, that (i) such access and disclosure shall not (A) materially and unreasonably interfere with the conduct of the business of the Company and its Subsidiaries or (B) with respect to the foregoing clauses (y) and (z), unreasonably interfere with the Company's and its Subsidiaries' ability to comply with their obligations hereunder or cause satisfaction of the conditions contemplated by Article 6, (ii) nothing herein shall require the Company or its Subsidiaries to provide access to, or to disclose any information to Parent, Merger Sub or their respective Representatives if such access or disclosure would be reasonably likely to (A) waive any attorney-client, work-product or legal privilege or (B) be in violation of applicable Law or COVID-19 Measures or the provisions of any Contract to which the Company or any of its Subsidiaries is a party, and (iii) nothing herein shall permit Parent, Merger Sub and/or their Representatives to conduct any invasive or intrusive sampling or testing of any media at the offices or properties of the Company or its Subsidiaries without the prior written consent of the Company, which consent may be withheld in the Company's sole discretion. In the event that the Company or any of its Subsidiaries do not provide access to or disclose information in reliance on clause (i) or (ii) of the preceding sentence, the Company shall provide written notice to Parent that it is denying such access or withholding such information and shall use its reasonable best efforts to communicate, to the extent feasible, the applicable information and/or provide the applicable access in a way that would not waive such privilege or contravene such Law, COVID-19 Measure or Contract. Parent and Merger Sub agree and acknowledge that all information they obtain as a result of access under this Section 5.2 shall be subject to the Confidentiality Agreement.

(b)Each of Parent and the Company agrees and acknowledges that it remains bound by the non-disclosure agreement, dated August 17, 2021, by and between the Company and Apollo Management IX, L.P. (as amended on the date hereof, the "Confidentiality Agreement"), and that, notwithstanding anything to the contrary contained in this Agreement, the Confidentiality Agreement shall survive and remain in full force and effect in accordance with its terms.

5.3No Solicitation.

(a)No Solicitation. Except as expressly permitted by Section 5.3(b), from the date hereof until the earlier to occur of the termination of this Agreement pursuant to Article 7 and the consummation of the Closing, the Company will not, and will cause its Subsidiaries not to, instruct, authorize or knowingly permit any of their officers and directors or any of their other Representatives to, directly or indirectly, (i) solicit, initiate, propose or knowingly induce the making, submission or announcement of, or knowingly encourage, facilitate or assist, any Inquiry or proposal that constitutes, or would reasonably be expected to lead to, an Acquisition Proposal; (ii) furnish to any Third Party any non-public information

relating to the Company or its Subsidiaries or afford to any Third Party access to the properties, assets, books, records or other non-public information, or to any personnel, of the Company or its Subsidiaries, in any such case with the intent to induce the making, submission or announcement of, or to knowingly encourage, facilitate or assist an Acquisition Proposal or any Inquiries or the making of any proposal or offer that would reasonably be expected to lead to an Acquisition Proposal; (iii) participate or engage in discussions, communications or negotiations with any Third Party with respect to an Acquisition Proposal or Inquiry (other than informing such third parties of the provisions contained in this Section 5.3); (iv) approve, endorse or recommend any proposal that constitutes or would reasonably be expected to lead to, an Acquisition Proposal or (v) enter into any letter of intent, agreement in principle, memorandum of understanding, merger agreement, acquisition agreement or other Contract relating to an Acquisition Transaction, other than an Acceptable Confidentiality Agreement (any such letter of intent, agreement in principle, memorandum of understanding, merger agreement, acquisition agreement or other Contract with respect to, or that is intended to result in, or would reasonably be expected to lead to an Acquisition Transaction (other than an Acceptable Confidentiality Agreement), an "Alternative Acquisition Agreement"). From the date hereof until the earlier to occur of the termination of this Agreement pursuant to Article 7 and the consummation of the Closing, the Company and its Subsidiaries will be required to enforce, and will not be permitted to waive, terminate or modify, any provision of any standstill or confidentiality agreement that prohibits or purports to prohibit a proposal being made to the Company Board (or any committee thereof) (unless the Company Board has determined in good faith, after consultation with its outside counsel, that failure to take such action would reasonably be expected to be inconsistent with its fiduciary duties under applicable Law).

(b)Superior Proposals. Notwithstanding anything to the contrary set forth in this Section 5.3, until the Company's receipt of the Company Stockholder Approval, the Company and its Subsidiaries and the Company Board (or a committee thereof) may, directly or indirectly, through one or more of their Representatives, (i) contact any Third Party in writing (with a request that any response from such Third Party is in writing) with respect to an Acquisition Proposal submitted by such Third Party to clarify any ambiguous terms and conditions thereof that are necessary to determine whether the Acquisition Proposal constitutes or would reasonably be likely to lead to a Superior Proposal (without the Company Board being required to make the determination in the following clause (ii)(y)), and (ii) participate or engage in discussions or negotiations with, furnish any non-public information relating to the Company or its Subsidiaries to, or afford access to the business, properties, assets, books, records or other non-public information, or to any personnel, of the Company or its Subsidiaries pursuant to an Acceptable Confidentiality Agreement to any Person or its Representatives that has made or delivered to the Company a bona fide Acquisition Proposal, and otherwise facilitate such Acquisition Proposal or assist such Person (and its Representatives, prospective debt and equity financing sources and/or their respective Representatives) with such Acquisition Proposal (in each case, if requested by such Person), in each case (x) with respect to an Acquisition Proposal that was not the result of any material breach of Section 5.3(a) and (y) only if the Company Board has determined in good faith (after consultation with its financial advisor and outside legal counsel) that such Acquisition Proposal either constitutes a Superior Proposal or would be reasonably likely to lead to a Superior Proposal; provided, however, that the Company will provide to Parent and its Representatives any non-public information that is provided to any Person or its Representatives given such access that was not previously made available to Parent

prior to or substantially concurrently (but in no event later than twenty-four (24) hours after) the time it is provided to such Person.

(c)No Change in Company Board Recommendation or Entry into an Alternative Acquisition Agreement. Except as provided by Section 5.3(d), at no time after the date hereof may the Company Board (or a committee thereof): (i) withhold, withdraw, amend, qualify or modify, or publicly propose to withhold, withdraw, amend, qualify or modify, the Company Board Recommendation, in each case, in a manner adverse to Parent or Merger Sub in any material respect (it being understood that it shall be considered a modification adverse to Parent and Merger Sub that is material if any Acquisition Proposal structured as a tender or exchange offer is commenced and the Company Board fails to publicly recommend against acceptance of such tender or exchange offer by the holders of Shares within ten (10) Business Days of commencement thereof pursuant to Rule 14d-2 of the Exchange Act); (ii) adopt, approve, endorse, recommend or otherwise declare advisable (or propose to adopt, approve, endorse, recommend or otherwise declare advisable) an Acquisition Proposal; (iii) fail to include the Company Board Recommendation in the Proxy Statement; (iv) within five (5) Business Days of Parent's written request, fail to make or reaffirm the Company Board Recommendation following the date any Acquisition Proposal or any material modification thereto is first publicly disclosed or distributed to the stockholders of the Company; (v) cause of direct the Company any of its Subsidiaries to enter into any Alternative Acquisition Agreement or (vi) publicly propose or agree to any of the foregoing (any action described in clauses (i) through (vi), a "Company Board Recommendation Change"); provided, however, that, for the avoidance of doubt, neither the delivery by the Company to Parent of any notice contemplated by Section 5.3(d) nor any determination by the Company Board (or a committee thereof) contemplated by Section 5.3(d) in connection with such notice will, in and of itself, constitute a Company Board Recommendation Change.

(d)Company Board Recommendation Change; Entry into Alternative Acquisition Agreement. Notwithstanding anything to the contrary set forth in this Agreement, at any time prior to obtaining the Company Stockholder Approval:

(i)the Company Board (or a committee thereof) may effect a Company Board Recommendation Change in response to any material event, fact, circumstance, development or occurrence that (A) was not known to, or reasonably foreseeable by, the Company Board as of the date hereof; and (B) does not involve or relate to the receipt, existence or terms of any Acquisition Proposal (or any proposal or inquiry that constitutes, or is reasonably expected to lead to, an Acquisition Proposal) (each such event, an "Intervening Event"), if the Company Board (or a committee thereof) determines in good faith (after consultation with its financial advisor and outside legal counsel) that the failure to do so would reasonably be expected to be inconsistent with its fiduciary duties pursuant to applicable Law and if and only if:

(1)the Company has provided prior written notice to Parent at least three (3) Business Days (the "Event Notice Period") in advance to the effect that the Company Board (or a committee thereof) intends to effect a Company Board Recommendation Change pursuant to this Section 5.3(d)(i) which notice

will specify the basis for such Company Board Recommendation Change, including a description of the Intervening Event in reasonable detail;

(2)prior to effecting such Company Board Recommendation Change, the Company and its Representatives, during such Event Notice Period, must have (A) negotiated with Parent, Merger Sub and their Representatives in good faith (to the extent that Parent and Merger Sub desire to so negotiate) to allow Parent and Merger Sub to offer such adjustments to the terms and conditions of this Agreement, the Commitment Letters and/or the Guaranty to obviate the need to effect a Company Board Recommendation Change, in response to such Intervening Event; and (B) taken into account any adjustments to the terms and conditions of this Agreement, the Commitment Letters and/or the Guaranty proposed by Parent and Merger Sub and other information provided by Parent and Merger Sub in response to the notice described in clause (1) of this Section 5.3(e)(i), in each case, that are offered in writing by Parent and Merger Sub, no later than 11:59 p.m. (Central Time) on the last day of the Event Notice Period, in a manner that would constitute a binding agreement between the parties if accepted by the Company; and

(3)following such Event Notice Period, the Company Board (or a committee thereof) (after consultation with its financial advisor and outside legal counsel and taking into account Parent's and Merger Sub's proposed revisions to the terms and conditions of this Agreement) shall have determined that the failure of the Company Board (or a committee thereof) to make such a Company Board Recommendation Change would reasonably be expected to be inconsistent with its fiduciary duties pursuant to applicable Law; provided that each time material modifications to the Intervening Event occur, the Company shall notify Parent of such modification and the time period set forth in the preceding clause (2) shall recommence and be extended for three (3) Business Days from the day of such notification.

(ii)if the Company has received a bona fide Acquisition Proposal that the Company Board (or a committee thereof) has concluded in good faith (after consultation with its financial advisor and outside legal counsel) is a Superior Proposal, then the Company Board may (x) effect a Company Board Recommendation Change with respect to such Superior Proposal; or (y) authorize the Company to terminate this Agreement pursuant to Section 7.1(d) to enter into an Alternative Acquisition Agreement with respect to such Superior Proposal substantially concurrently with the termination of this Agreement; provided, however, that the Company Board (or a committee thereof) shall not take any action described in the foregoing clauses (x) or (y) unless:

(1)the Company, its Subsidiaries and its and their respective Representatives have complied in all material respects with their obligations pursuant to this Section 5.3 with respect to such Acquisition Proposal;

(2)(i) the Company has provided prior written notice to Parent at least three (3) Business Days in advance (the "Proposal Notice Period") to the

effect that the Company Board (or a committee thereof) has (A) received a bona fide Acquisition Proposal that has not been withdrawn; (B) concluded in good faith that such Acquisition Proposal constitutes a Superior Proposal; and (C) resolved to effect a Company Board Recommendation Change or to terminate this Agreement pursuant to this Section 5.3(d)(ii) absent any revision to the terms and conditions of this Agreement, which notice will specify the identity of the Person or "group" of Persons making such Acquisition Proposal, the material terms and conditions thereof and copies of all relevant documents relating to such Acquisition Proposal; and (ii) prior to effecting such Company Board Recommendation Change or termination, the Company and its Representatives, during the Proposal Notice Period, must have (x) negotiated with Parent, Merger Sub and their Representatives in good faith (to the extent that Parent and Merger Sub desire to so negotiate) to offer such adjustments to the terms and conditions of this Agreement, the Commitment Letters and/or the Guaranty so that such Acquisition Proposal would cease to constitute a Superior Proposal; and (y) taken into account any adjustments to the terms and conditions of this Agreement, the Commitment Letters and/or the Guaranty proposed by Parent and Merger Sub and other information provided by Parent and Merger Sub during the Proposal Notice Period, in each case, that are offered in writing by Parent and Merger Sub, no later than 11:59 p.m. (Central Time) on the last day of the Proposal Notice Period, in a manner that would constitute a binding agreement between the parties if accepted by the Company; provided, however, that in the event of any material modifications to such Acquisition Proposal (which shall be deemed to include any change to the financial terms of such proposal) the Company will be required to deliver a new written notice to Parent and to comply with the requirements of this Section 5.3(d)(ii)(2) with respect to such new written notice (it being understood that the "Proposal Notice Period" in respect of such new written notice will be two (2) Business Days);

(3)following such Proposal Notice Period, including any subsequent Proposal Notice Period as provided in the final proviso of the foregoing Section 5.3(d)(ii)(2), the Company Board shall have concluded in good faith (after consultation with its financial advisor and outside legal counsel and taking into account Parent's proposed revisions to the terms and conditions of this Agreement and any other information provided by Parent) that such Acquisition Proposal continues to constitute a Superior Proposal; and

(4)in the event of any termination of this Agreement in order to cause or permit the Company or its Subsidiaries to enter into an Alternative Acquisition Agreement with respect to such Acquisition Proposal, the Company will have validly terminated this Agreement in accordance with Section 7.1(d).

(e)Notice.

(i)The Company shall, as promptly as reasonably practicable (and, in any event, within twenty-four (24) hours) notify Parent in writing if the Company, any of its Subsidiaries or any of their respective Representatives has received any bona fide written

Acquisition Proposals, including copies of any written materials relating thereto provided to the Company or its Representatives.

(ii)From the date hereof until the earlier to occur of the termination of this Agreement pursuant to Article 7 and the consummation of the Closing, the Company will promptly (and, in any event, within forty-eight (48) hours) notify Parent if any Inquiries, offers or proposals or requests for non-public information or discussions that constitute or would reasonably be expected to lead to an Acquisition Proposal, or any material revisions to the terms and conditions of any pending Acquisition Proposals disclosed pursuant to Section 5.3(e)(i), are received by the Company or any of its Representatives. Such notice must include (i) the identity of the Third Party making such Inquiries, offers or proposals, (ii) a summary of the material terms and conditions of such Inquiries, offers or proposals to the extent such material terms and conditions are not included in the written materials provided in the following clause (iii); and (iii) copies of any written materials relating thereto provided to the Company or its Representatives. Thereafter, the Company must keep Parent reasonably informed, on a reasonably prompt basis as requested by Parent, of the status (and supplementally provide the material terms) of any such Inquiries, offers or proposals (including any amendments thereto and any new, amended or revised written materials relating thereto provided to the Company or its Representatives) and the status of any such discussions or negotiations.

(iii)The Company agrees that it shall not, and shall cause its Subsidiaries not to, enter into any confidentiality or other agreement subsequent to the date hereof that prohibits compliance with this Section 5.3(e).

(iv)Notwithstanding any Company Board Recommendation Change, unless this Agreement shall have been terminated in accordance with Article 7, (x) this Agreement shall be submitted to the stockholders of the Company at the Company Meeting for the purpose of obtaining the Company Stockholder Approval, and nothing contained herein shall be deemed to relieve the Company of such obligation and (y) neither the Company Board nor any committee thereof shall submit to the stockholders of the Company any Acquisition Proposal, or, except as permitted herein, propose to do so.

(f)Certain Disclosures. Nothing in this Agreement will prohibit the Company or its Subsidiaries or the Company Board (or a committee thereof) from (i) taking and disclosing to the holders of Shares a position contemplated by Rule 14e-2(a) promulgated under the Exchange Act or complying with Rule 14d-9 promulgated under the Exchange Act, including a "stop, look and listen" communication by the Company Board (or a committee thereof) to the holders of Shares pursuant to Rule 14d-9(f) promulgated under the Exchange Act (or any substantially similar communication); (ii) complying with Item 1012(a) of Regulation M-A promulgated under the Exchange Act; (iii) informing any Person of the existence of the provisions contained in this Section 5.3; or (iv) making any disclosure to the holders of Shares as required by applicable Law, regulation or stock exchange rule or listing agreement, it being understood that (1) any such statement or disclosure made by the Company Board (or a committee thereof) pursuant to this Section 5.3(f) must be subject to the terms and conditions of this Agreement and will not limit or otherwise affect the obligations of the Company or its Subsidiaries or the Company Board (or any committee thereof) and the rights of Parent under this Section 5.3, and (2) nothing in the foregoing will be deemed to permit the Company or its

Subsidiaries or the Company Board (or a committee thereof) to effect a Company Board Recommendation Change other than in accordance with Section 5.3(d). In addition, it is understood and agreed that, for purposes of this Agreement, a factually accurate required public statement by the Company or the Company Board (or a committee thereof) that solely describes the receipt of an Acquisition Proposal, the identity of the Person making such Acquisition Proposal, the material terms of such Acquisition Proposal and the operation of this Agreement with respect thereto will not be deemed to be (A) a withholding, withdrawal, amendment, or modification, or proposal by the Company Board (or a committee thereof) to withhold, withdraw, amend or modify, the Company Board Recommendation; (B) an adoption, approval or recommendation with respect to such Acquisition Proposal; or (C) a Company Board Recommendation Change.

5.4Company Stockholder Meeting; Proxy Statement.

(a)Unless this Agreement is terminated in accordance with Article 7, the Company shall, in accordance with applicable Law, the rules of the NYSE and the Company's organizational documents, take the following actions:

(i)establish a record date, duly call, give notice of, convene and hold a meeting of holders of Shares (the "Company Meeting") as promptly as reasonably practicable after the date of this Agreement for the purpose of voting on the adoption of this Agreement. In relation to the Company Meeting and the conduct of business thereat, the Company shall comply with its certificate of incorporation and bylaws and applicable Law; and

(ii)prepare and file with the SEC, as promptly as practicable after the date of this Agreement, and in any event no later than twenty (20) Business Days after the date of this Agreement, a proxy statement relating to the solicitation of proxies from the holders of Shares for the approval of this Agreement (the "Proxy Statement") (provided, that if Parent or Merger Sub breach this Section 5.4, such period to prepare and file the Proxy Statement shall be extended for each day Parent or Merger Sub is in such breach), and shall use its reasonable best efforts to have the Proxy Statement cleared by the SEC as promptly as reasonably practicable after such filing and mailed to its stockholders as promptly as reasonably practicable after such clearance. The Company shall include in the Proxy Statement (and any supplement or amendment thereto) the Company Board Recommendation (subject to Section 5.3(c) and Section 5.3(d)) and the written opinion of Lazard Frères & Co. LLC, dated as of the date of this Agreement, that, as of such date, the Merger Consideration is fair, from a financial point of view, to the holders of the Shares, and shall use its reasonable best efforts to solicit proxies from its stockholders to obtain the Company Stockholder Approval.

(b)Parent and Merger Sub shall reasonably cooperate in the preparation of the Proxy Statement and shall promptly (and in any event no later than ten (10) days after the date of the Company's written request therefor) provide to the Company all information regarding Parent or Merger Sub or any of their respective affiliates that is required by applicable Law in connection with the preparation and filing of the Proxy Statement and any amendment or supplement thereto. Unless a Company Board Recommendation Change has occurred, the Company shall use its reasonable best efforts to obtain the Company Stockholder Approval. The Company agrees that, unless this Agreement shall have been terminated in

accordance with Article 7, its obligations pursuant to this Section 5.4 shall not be affected by the commencement, public proposal, public disclosure or communication to the Company of any Acquisition Proposal or by the making of any Company Board Recommendation Change.

(c)The Company shall promptly notify Parent of the receipt of any comments of the SEC with respect to the Proxy Statement and of any request by the SEC for any amendment or supplement thereto or for additional information and shall promptly provide Parent with copies of all correspondence between the Company and the SEC with respect to the Proxy Statement (including a summary of any oral conversations). The Company, Parent and Merger Sub shall each use their reasonable best efforts to promptly provide responses to the SEC with respect to all comments of the SEC received on the Proxy Statement. Prior to the submission of the Proxy Statement (and any supplement or amendment thereto) and all responses to the SEC, the Company shall reasonably cooperate and provide Parent and its legal counsel with a reasonable opportunity to review and comment on the Proxy Statement and any responses to the SEC and shall take into account any comments reasonably proposed by Parent (it being understood that Parent shall provide any such comments reasonably promptly). The Company shall use its reasonable best efforts to have the comments of the SEC (if any) on the Proxy Statement (and any supplement or amendment thereto) addressed to the satisfaction of the SEC, and the definitive Proxy Statement filed as promptly as reasonably practicable.

(d)If any event occurs with respect to the Company or its Subsidiaries, or any change occurs with respect to other information supplied by the Company for inclusion in the Proxy Statement, which is required to be described in an amendment of, or a supplement to, the Proxy Statement, the Company shall promptly notify Parent of such event, and the Company and Parent shall reasonably cooperate in the prompt filing with the SEC of any necessary amendment or supplement to the Proxy Statement and, as required by Law, in disseminating the information contained in such amendment or supplement to the holders of Shares.

(e)If any event occurs with respect to Parent or Merger Sub, or any change occurs with respect to other information supplied by Parent or Merger Sub for inclusion in the Proxy Statement, which is required to be described in an amendment of, or a supplement to, the Proxy Statement, Parent shall promptly notify the Company of such event, and Parent and the Company shall reasonably cooperate in the prompt filing with the SEC of any necessary amendment or supplement to the Proxy Statement and, as required by Law, in disseminating the information contained in such amendment or supplement to the holders of Shares.

(f)The Company may postpone or adjourn the Company Meeting to a date that is no later than forty-five (45) days after the date on which the Company Meeting was originally scheduled (excluding any adjournments or postponements required by applicable Law) (i) with the consent of Parent (not to be unreasonably withheld, conditioned or delayed), (ii) if a quorum has not been established, (iii) to allow reasonable additional time for the filing and mailing of any supplemental or amended disclosure which the Company Board has determined in good faith is necessary or advisable and for such supplemental or amended disclosure to be disseminated and reviewed by the Company's stockholders prior to the Company Meeting, (iv) to allow reasonable additional time to solicit additional proxies if necessary in order to obtain the Company Stockholder Approval or (v) if required by Law.

5.5Parent Financing Assistance.

(a)Prior to the Closing, the Company shall, and shall cause its Subsidiaries and their respective officers and employees to, and shall direct its Representatives to, use reasonable best efforts to provide such customary or necessary cooperation in connection with the arrangement and implementation of the Debt Financing as Parent may reasonably request from time to time, upon reasonable advance notice, including using reasonable best efforts to:

(i)as promptly as practicable (A) furnish Parent with the Required Financial Information and (B) inform Parent if the chief executive officer, chief financial officer, treasurer or controller of the Company or any member of the audit committee of the Company Board shall have actual knowledge of any facts as a result of which a restatement of any financial statements (or portion thereof) included in or including the Required Financial Information is reasonably probable or required in order for such financial statements (or portion thereof) to comply with GAAP;

(ii)assist with the preparation of, and review and comment on, Offering Documents;

(iii)designate a member of senior management of the Company to execute customary authorization letters with respect to the Offering Documents relating to the "bank" financing that authorize the distribution of information to prospective lenders, and identify any portion of such information that constitutes material, non-public information regarding the Company or its Subsidiaries or their securities, and cause members of senior management of the Company to participate, during normal business hours and upon reasonable advance notice, in a reasonable number of presentations, road shows, due diligence sessions, drafting sessions and sessions with ratings agencies in connection with the Debt Financing, which shall be telephonic or held by videoconference, including (A) direct contact between such senior management of the Company and Debt Financing Sources and other potential lenders and investors in the financing, (B) otherwise cooperating with the marketing efforts for any of the Debt Financing and (C) assisting Parent and the Debt Financing Sources with obtaining ratings as contemplated by the Debt Financing;

(iv)in the event the Debt Financing includes an offering of debt securities, request and facilitate its independent auditors to (A) provide customary accountant's comfort letters (including "negative assurance" comfort and customary change period comfort), together with drafts of such comfort letters that such independent auditors are prepared to deliver upon the "pricing" of any high-yield bonds being issued in connection with the Debt Financing, and consents from the Company's independent auditors with respect to financial information regarding the Company and its Subsidiaries, (B) provide reasonable assistance to Parent in connection with Parent's preparation of pro forma financial statements and pro forma financial information (it being understood that Parent shall be solely responsible for the preparation of any pro forma financial statements and pro forma financial information) and (C) attend a reasonable number of accounting due diligence sessions and drafting sessions, which sessions shall be telephonic or held by videoconference;

(v)assist in the preparation of, and execution and delivery of, definitive financing documents (including any guarantee, pledge and security documents, supplemental indentures, currency or interest rate hedging arrangement, other definitive financing documents or other certificates or documents as may be reasonably requested by Parent or the Debt Financing Sources (including a certificate of the chief financial officer of the Company with respect to solvency matters in the form set forth as an exhibit to the Debt Financing Commitment Letter)) and the schedules and exhibits thereto, in each case subject to the occurrence of the Closing;

(vi)(A) facilitate the pledging of collateral for the Debt Financing, including using reasonable best efforts to deliver any original stock certificates and related powers and any original promissory notes and related allonges and providing reasonable assistance with any collateral documents that involve a Third Party, including landlord waivers, deposit account control agreements, blocked account arrangements or lock box arrangements, if applicable and in each case subject to the occurrence of the Closing and (B) assist with obtaining release of existing Liens; provided that such releases shall be subject to the occurrence of the Closing;

(vii)furnish Parent and the Debt Financing Sources at least four (4) Business Days prior to the Closing Date (solely to the extent requested by Parent at least eight (8) Business Days prior to the Closing Date) with all documentation and other information required by Government Officials with respect to the Debt Financing under applicable "know your customer" and anti-money laundering rules and regulations, including, without limitation, the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, as amended;

(viii)solely with respect to financial information and data derived from the Company's historical books and records, assist Parent with Parent's preparation of pro forma financial information and pro forma financial statements to the extent reasonably requested by Parent or the Debt Financing Sources to be included in any marketing materials or Offering Documents or of the type required by the Debt Financing Commitment Letter (provided that the Company and its Subsidiaries shall not be responsible for the preparation of any pro forma financial statements or pro forma adjustments thereto and, for the avoidance of doubt, shall not be obligated to provide pro forma financial statements or any information regarding any post-Closing or pro forma cost savings, synergies, debt or equity capitalization, ownership or other post-Closing pro forma adjustments necessary or desired to be incorporated into such pro forma financial statements);

(ix)take all corporate actions, subject to the occurrence of the Closing, reasonably requested by Parent to permit the consummation of the Debt Financing (provided, that no such action shall be required of the Company Board prior to the Closing);

(x)cooperate in satisfying the conditions precedent set forth in the Debt Financing Commitment Letter or any definitive document relating to the Debt Financing to the extent the satisfaction of such condition requires the cooperation of, or is within the control of, the Company and its Subsidiaries; and

(xi)ensure that the Debt Financing Sources and their advisors and consultants shall have reasonable access to the Company and its Subsidiaries to evaluate the Company's and its Subsidiaries' current assets, inventory, cash management and accounting systems, policies and procedures relating thereto for the purposes of establishing collateral arrangements as of the Closing, and assist with other collateral audits, collateral appraisals and due diligence examinations.

(b)Notwithstanding anything to the contrary in this Section 5.5:

(i)nothing in this Section 5.5 will require any cooperation to the extent the same would (A) unreasonably interfere with the ongoing operations of the Company or its Subsidiaries, (B) cause any officer or employee of the Company or any of its Subsidiaries or any of its or their Representatives to incur any personal liability, (C) without limiting the scope of its obligations pursuant to Sections 5.5(a)(iii) and (viii), require the Company or any of its Subsidiaries to prepare pro forma financial statements or change any fiscal period, (D) require the Company or any of its Subsidiaries to cause its legal counsel to deliver any legal opinions (except as contemplated by Section 5.16), or (E) reasonably be expected to conflict with, violate, breach or otherwise contravene (I) any Law and/or (II) any Company Material Contract;

(ii)neither the Company nor any of its Subsidiaries shall be required to (A) pay any commitment or other fee or have any liability or obligation, including any indemnification obligation, under any agreement or any document related to any Debt Financing prior to the Closing Date, or (B) incur any cost or expense unless such cost or expense is promptly reimbursed by Parent to the Company or any designee of the Company (and in any event no later than the termination of this Agreement in accordance with Article 7); and

(iii)neither the Company nor any of its Subsidiaries or any of their respective Representatives shall be required to execute, deliver or enter into, or perform any agreement, document or instrument, including any definitive financing document (except any authorization letters delivered pursuant to Section 5.5(a)(iii) or any certificate, document, instrument or agreement provided in accordance with Section 5.5(a)(iii) or Section 5.16), with respect to the Debt Financing or adopt resolutions approving the agreements, documents and/or instruments pursuant to which the Debt Financing is obtained or pledge any collateral with respect to the Debt Financing that is not contingent upon the Closing or that would be effective prior to the Closing.

(c)Promptly following the written request of the Company, Parent shall reimburse the Company or its designee for any reasonable, documented out-of-pocket expenses (including reasonable attorneys' fees) incurred by the Company and/or its Subsidiaries in connection with the assistance required by this Section 5.5. Parent shall indemnify and hold harmless the Company and its Subsidiaries and their respective Representatives from and against any and all liabilities or losses suffered or incurred by them in connection with the arrangement of any Debt Financing and any information utilized in connection therewith (other than liabilities or losses resulting solely from information provided by the Company or its Subsidiaries), in each case, other than to the extent any of the foregoing was suffered or incurred as a result of the intentional misrepresentation, bad faith, gross negligence or willful misconduct of, or material

breach of this Agreement by, the Company, its Subsidiaries or any of their Representatives. All material non-public information regarding the Company and its Subsidiaries provided to Parent or its Representatives pursuant to this Section 5.5 shall be kept confidential by them in accordance with the Confidentiality Agreement.

(d)The Company hereby consents, on behalf of itself and its Subsidiaries, to the use of the Company's and its Subsidiaries' logos in connection with any Debt Financing; provided, that such logos are used in a manner that is not intended to or reasonably likely to harm or disparage the Company's or its Subsidiaries' reputation or goodwill.

(e)The Company shall, and shall cause its Subsidiaries to, use reasonable best efforts to periodically update any Required Financial Information provided to Parent as may be necessary so that such Required Financial Information (i) is Compliant and (ii) meets the applicable requirements set forth in the definition of "Required Financial Information." For the avoidance of doubt, Parent may, to most effectively access the financing markets, request the cooperation of the Company and its Subsidiaries under this Section 5.5 at any time, and from time to time and on multiple occasions, between the date of this Agreement and the Closing; provided that, for the avoidance of doubt, the Marketing Period shall not be applicable as to each attempt to access the markets. The Company agrees to use reasonable best efforts to file all reports on Form 10-K and Form 10-Q and Form 8-K, in each case, required to be filed with the SEC pursuant to the Exchange Act prior to the Closing Date in accordance with the periods required by the Exchange Act. The Company agrees to use reasonable best efforts to review all Offering Documents and marketing materials for the Debt Financing (subject to Parent providing the Company with reasonable time to review) and identify for Parent any information contained therein that it reasonably believes constitutes material non-public information with respect to the Company and its Subsidiaries (taken as a whole) or their respective securities. If the Company identifies any such information, then the Company shall file a Current Report on Form 8-K containing such material non-public information.

5.6Financing Obligation of Parent.

(a)Parent shall use its reasonable best efforts to take, or cause to be taken, all actions and to do, or cause to be done, all things necessary, proper or advisable to obtain the Debt Financing in an amount required to satisfy the Financing Purposes not later than the Closing Date (after taking into account any available Equity Financing) on the terms and conditions set forth in the Debt Financing Commitment Letters (or on other terms that, with respect to conditionality, are not less favorable to Parent than the terms and conditions set forth in the Debt Financing Commitment Letter), including by using reasonable best efforts to (i) maintain in effect the Debt Financing and the Debt Financing Commitment Letters, (ii) negotiate and enter into definitive agreements with respect to the Debt Financing required to pay the Financing Purposes (after taking into account any available Equity Financing) (which, with respect to the bridge facility documentation, shall not be required until reasonably necessary in connection with the funding of the Debt Financing required to satisfy the Financing Purposes (after taking into account any available Equity Financing)) on the terms and conditions contained in the Debt Financing Commitment Letters (or on other terms that would not (A) reasonably be expected to adversely affect Parent's ability to consummate the Transactions, (B) reduce the aggregate amount of the Debt Financing below the amount necessary to satisfy the Financing

Purposes (after taking into account any available Equity Financing), (C) impose new or additional conditions or expand upon (or amend or modify in any manner adverse to the interests of the Company or its Subsidiaries) the conditions precedent to the Debt Financing as set forth in the Debt Financing Commitment Letters in a manner that would be reasonably expected to delay the Closing or make the Closing less likely to occur or (D) reasonably be expected to delay the availability of the Debt Financing required to satisfy the Financing Purposes (after taking into account any available Equity Financing) beyond the date that the Closing is required to be effected in accordance with Section 1.2), (iii) satisfy or, if deemed advisable by Parent, obtain a waiver thereof, on a timely basis all conditions applicable to Parent contained in the Debt Financing Commitment Letters to the funding of the Debt Financing required to satisfy the Financing Purposes (after taking into account any available Equity Financing) that are within its control to be satisfied by Parent (other than any condition where the failure to be so satisfied is primarily the result of the Company's failure to provide the cooperation described in Section 5.5), including the payment of any commitment, engagement, or placement fees required as a condition to the Debt Financing, (iv) assuming that all conditions contained in the Debt Financing Commitment Letter have been satisfied, consummate the Debt Financing in an amount required to satisfy the Financing Purposes at or prior to the Closing Date, and (v) comply with its obligations under the Debt Financing Commitment Letters. Subject to the terms and upon satisfaction of the conditions set forth in the Debt Financing Commitment Letters, Parent shall use its reasonable best efforts to cause the lenders and the other Persons providing such Debt Financing to provide the Debt Financing on the Closing Date and shall fully enforce the counterparties' obligations and its rights under the Debt Financing Commitment Letters to cause the lenders under the Debt Financing to fund in accordance with their respective commitments. Parent shall provide to the Company copies of the Debt Financing Commitment Letters and any amendments thereto within forty-eight (48) hours of receipt of the final executed copy of such amendment and shall keep the Company reasonably informed on a current basis and in reasonable detail of material developments in respect of the financing process relating thereto. In the event that Parent seeks to enforce its rights under the Debt Financing Commitment Letters or the definitive agreements entered into in connection therewith and/or cause the financing sources to fund the Debt Financing (any such action, a "Financing Action"), Parent shall (x) keep the Company reasonably informed of the status of the Financing Action and (y) at the reasonable request of the Company, shall make Parent's employees and Representatives available to discuss the status of, and developments with respect to, the Financing Action.

(b)Without limiting the generality of the foregoing, Parent shall provide the Company with prompt written notice (i) of any breach or default by any party to the Debt Financing Commitment Letters or definitive agreements related to the Debt Financing of which Parent becomes aware, (ii) of the receipt of (A) any written notice or (B) other written communication, in each case from any Debt Financing Source with respect to any (I) breach, default, termination or repudiation by any party to the Debt Financing Commitment Letters or the definitive agreements related to the Debt Financing of any provision of the Debt Financing Commitment Letters or the definitive agreements related to the Debt Financing, (II) material dispute or disagreement between or among any parties to the Debt Financing Commitment Letters or definitive agreements related to the Debt Financing with respect to the obligation to fund the Debt Financing in the amount of the Debt Financing required to satisfy the Financing Purposes (after taking into account any available Equity Financing) at Closing, and (iii) if at any time for any reason Parent believes in good faith that it will not be able to obtain all or any

portion of the Debt Financing necessary to satisfy the Financing Purposes (after taking into account any available Equity Financing). As soon as reasonably practicable, Parent shall provide any information reasonably requested by the Company relating to any circumstance referred to in clause (i), (ii) or (iii) of the immediately preceding sentence.

(c)Prior to the Closing, Parent shall not, without the prior written consent of the Company, agree to, or permit, any amendment or modification of, or waiver or consent under, any Commitment Letter or other documentation relating to the Financing which would (i) reasonably be expected to adversely affect Parent's ability to consummate the Transactions, (ii) reduce the aggregate amount of the Financing below the amount necessary to satisfy the Financing Purposes (after taking into account any available Equity Financing), (iii) impose new or additional conditions or expand upon (or amend or modify in any manner adverse to the interests of the Company or its Subsidiaries) the conditions precedent to the Financing as set forth in the Commitment Letters in a manner that would be reasonably expected to delay the Closing or make the Closing less likely to occur, or (iv) reasonably be expected to delay the availability of the Financing required to satisfy the Financing Purposes; provided that, the Debt Financing Commitment Letters or such documentation may be amended to add lenders, lead arrangers, bookrunners, syndication agents or other entities who had not executed the Debt Financing Commitment Letter as of the date of this Agreement. For purposes of Section 5.5 (*Parent Financing Assistance*), Section 5.6 (*Financing Obligation of Parent*), Section 9.7(*Amendment and Waiver*), Section 9.9 (*Third Party Beneficiaries*), Section 9.10 (*Waiver of Trial by Jury*), Section 9.14 (*Governing Law*), and Section 9.15 (*Consent to Jurisdiction*), the definitions of "Debt Financing Commitment Letter" and "Debt Financing" shall include the Debt Financing or the Replacement Debt Financing, as applicable, or documents related thereto as permitted to be amended or modified by this Section 5.6. Upon any amendment or modification of the Commitment Letters in accordance with this Section 5.6(c), Parent shall promptly deliver to the Company copies of any such amendment or modification.

(d)If, notwithstanding the use of reasonable best efforts by Parent to satisfy its obligations under this Section 5.6, the Debt Financing or the Debt Financing Commitment Letters (or any definitive financing agreement relating thereto) expire or are terminated or become unavailable prior to the Closing, in whole or in part, for any reason, and such portion is required to satisfy the Financing Purposes (after taking into account any available Equity Financing), Parent shall (i) promptly notify the Company of such expiration, termination, or unavailability and the reasons therefor and (ii) subject to the third to last sentence of this Section 5.6(d), use its reasonable best efforts promptly to arrange for a firm commitment for alternative financing ("Replacement Debt Financing") (which, shall not, without the prior consent of the Company, (A) impose any new or additional condition or otherwise expand any condition to the receipt of the Debt Financing that makes the funding of the Debt Financing in an amount required to satisfy the Financing Purposes (after taking into account any available Equity Financing) less likely to occur or (B) otherwise be on terms and conditions that are materially less favorable to Parent from a conditionality or enforceability perspective than the terms and conditions of the Debt Financing Commitment Letters) to replace the financing contemplated by such expired, terminated, or unavailable commitment or arrangement or any portion thereof in an amount sufficient, when added to the portion of the Debt Financing that remains available and taking into account any available Equity Financing, to satisfy the Financing Purposes. Notwithstanding anything to the contrary contained in this Agreement, nothing contained in this

Section 5.6 shall require, and in no event shall the reasonable best efforts of Parent be deemed or construed to require, Parent to pay any fees or any interest rates applicable to the Debt Financing in excess of those contemplated by the Debt Financing Commitment Letter (including the market flex provisions) or agree to any other term materially less favorable to Parent or the Company than such corresponding term contained in or contemplated by the Debt Financing Commitment Letter (in either case, whether to secure waiver of any conditions contained therein or otherwise). Copies of any new financing commitment letter, including any term sheet, annex and any agreements related thereto entered into in connection with any Replacement Debt Financing (including any related fee letter (with fee amount redacted to the extent required by the applicable financing source)) shall be promptly provided to the Company and in any event within forty-eight (48) hours of receipt by Parent of a final executed copy of such new financing commitment letter. In such event, (1) the term "Debt Financing" will be deemed to include any Replacement Debt Financing and (2) the term "Debt Financing Commitment Letter" will be deemed to include any commitment letters with respect to such Replacement Debt Financing.

5.7 Regulatory Filings; Consents.

(a) Upon the terms and subject to the conditions set forth in this Agreement, each of the parties agrees to use its reasonable best efforts to take, or cause to be taken, all actions that are necessary, proper or advisable under this Agreement and applicable Law to cause the conditions set forth in Article 6 to be satisfied and to consummate and make effective the Merger and the other Transactions as promptly as practicable. In furtherance and not in limitation of the foregoing, Parent (and the Company, as applicable) shall make (i) an appropriate filing of a Notification and Report Form pursuant to the HSR Act with respect to the transactions contemplated hereby within ten (10) Business Days after the date of this Agreement, (ii) file or cause to be filed appropriate filings or draft filings, notices or applications (where required by the relevant Antitrust Laws or where pre-notification or equivalent procedures are mandatory or advisable) under the other Antitrust Laws set forth on Section 5.7(a) of the Company Disclosure Schedule with respect to this Agreement and the transactions contemplated herein as soon as reasonably practicable, (iii) file or cause to be filed appropriate filings, notices or applications, as applicable, for foreign investment clearance of any jurisdiction set forth on Section 5.7(a) of the Company Disclosure Schedule ("FDI Approval") with respect to this Agreement and the transactions contemplated herein as soon as reasonably practicable and (iv) any filings required to consummate the Transactions under the Communications Act of 1934 and the rules and regulations promulgated by the FCC. The Company, Parent and Merger Sub shall use reasonable best efforts to supply as promptly as reasonably practicable any additional information and documentary material that may be reasonably requested pursuant to the foregoing (including with respect to information requests received from the relevant Governmental Entity following submission of the relevant filings, submissions or notices), and use its reasonable best efforts to take all other actions necessary to cause the expiration or termination of the applicable waiting periods and obtain all consents in connection with the foregoing as soon as reasonably practicable. Notwithstanding the foregoing, any party hereto may, as it deems advisable and necessary, reasonably designate any competitively sensitive material provided to the other parties hereto under this Section 5.7 as "outside counsel only." Such materials and the information contained therein shall be given only to the outside counsel of the recipient party, and the recipient party shall cause such outside counsel not to disclose such materials or information to any employees, officers, directors or other Representatives of

the recipient party, unless express written permission is obtained in advance from the source of the materials.

(b)Except as prohibited by applicable Law or Order, Parent, Merger Sub and the Company shall use reasonable best efforts to (i) cooperate reasonably with each other in connection with any filing or submission with a Governmental Entity in connection with the Transactions and in connection with any investigation or other inquiry by or before a Governmental Entity relating to the Transactions, (ii) promptly inform the other parties hereto of (and, if in writing, supply to the other parties' legal counsel) any material communication, other than any ministerial communications, received by such party from, or given by such party to, the Federal Trade Commission, the Antitrust Division of the Department of Justice, or any other similar Governmental Entity (foreign or domestic), in each case regarding any of the Transactions, (iii) consult with each other prior to taking any material position with respect to the filings under the HSR Act or filings under other Antitrust Laws, or with respect to any FDI Approval, in discussions with or filings to be submitted to any Governmental Entity, (iv) permit the other parties' legal counsel to review and discuss in advance, and consider in good faith the views of the other parties in connection with, any analyses, presentations, memoranda, briefs, arguments, opinions and proposals to be submitted to any Governmental Entity with respect to filings under the HSR Act or under any other Antitrust Laws, or with respect to any FDI Approval, (v) coordinate with the other parties' legal counsel in preparing and exchanging such information and promptly provide the other parties' legal counsel with copies of all filings, presentations or material submissions (and a summary of any oral presentations) made by such party with any Governmental Entity relating to this Agreement or the transactions contemplated hereby under the HSR Act and such other Antitrust Laws, or with respect to any FDI Approval, which may be redacted for confidential information or otherwise shared on an outside counsel only basis, and (vi) to the extent permitted by the Governmental Entity, participate in material meetings, presentations, consultations, and discussions related to obtaining clearances required in connection with the transactions contemplated hereby. Subject to applicable Law, the parties hereto will consult and cooperate with one another in connection with any analyses, appearances, presentations, memoranda, briefs, arguments, opinions and proposals made or submitted by or on behalf of any party relating to proceedings under the HSR Act, any Antitrust Law or with respect to any FDI Approval. Notwithstanding the forgoing and anything to the contrary contained in this Agreement, the Parent shall control and lead (with prior notice to and consultation of the Company, and taking the Company's views into account in good faith) all communications and strategy relating to any process under the HSR Act, any Antitrust Law and with respect to any FDI Approval.

(c)Unless prohibited by applicable Law or Order or by the applicable Governmental Entity, each of the Company, on one hand, and Parent and Merger Sub, on the other hand, shall (i) to the extent reasonably practicable and permissible by the relevant Governmental Entity, not participate in or attend any material meeting, or engage in any material conversation (other than ministerial conversations) with any Governmental Entity in respect of the Transactions without the other, (ii) to the extent reasonably practicable, give the other reasonable prior notice of any such material meeting or material conversation and (iii) in the event one such party is prohibited by applicable Law or Order or by the applicable Governmental Entity from participating or attending any such material meeting or engaging in any such

material conversation, or it has not been reasonably practicable to include the non-participating party, keep such non-participating party reasonably apprised with respect thereto.

(d)In furtherance and not in limitation of the actions and obligations described in Section 5.7(b) and Section 5.7(c), Parent shall use its reasonable best efforts to promptly (and in any event, prior to the Outside Date) resolve such objections, if any, as may be asserted by any Governmental Entity with respect to the transactions contemplated by this Agreement under the HSR Act, any Antitrust Law or with respect to any FDI Approval. In connection therewith, if any Proceeding is instituted (or threatened to be instituted), which Proceeding challenges any transaction contemplated by this Agreement as in violation of the HSR Act or any other Antitrust Law, or threatens to result in the denial of any FDI Approval, Parent shall use its reasonable best efforts to promptly contest and resist any such Proceeding, and seek to have promptly vacated, lifted, reversed or overturned any decree, judgment, injunction or other order, whether temporary, preliminary or permanent, that is in effect and that prohibits, prevents, limits or restricts the consummation of the transactions contemplated by this Agreement, including by pursuing all available avenues of administrative and judicial appeal. Parent shall use its reasonable best efforts to take such actions as may be required to cause the expiration or termination of the waiting, notice or review periods under the HSR Act, any Antitrust Law or with respect to any FDI Approval, in each case, with respect to the Transactions as promptly as possible after the execution of this Agreement (and in any event prior to the Outside Date). Parent shall not more than one (1) time, without prior written consent of the Company, and taking the Company's views into account in good faith, "pull-and-refile," pursuant to 16 C.F.R. 803.12, any filing made under the HSR Act or take any similar action under the Antitrust Laws, or with respect to any FDI Approval, set forth on Section 5.7(a) of the Company Disclosure Schedule, in each case, with respect to any filing made with any Governmental Entity. Notwithstanding anything to the contrary in this Agreement, Parent or any of its affiliates shall not be required by this Agreement to make any notification to any Governmental Entity where not otherwise required by Law regarding any proposed transaction (other than the Transactions).

(e)Parent further agrees that it shall, and shall cause its Subsidiaries to, to the extent necessary to obtain any waiver, permit, approval, clearance or consent from any Governmental Entity under the HSR Act or any Antitrust Law or any FDI Approval or which is otherwise required to satisfy the conditions set forth in Section 6.1(b) or Section 6.1(c), as applicable, or to avoid the entry of or have lifted, vacated, reversed or terminated any Closing Legal Impediment, in each case, prior to the Outside Date, promptly take the following actions: (i) propose, negotiate and offer to commit and to effect (and if such offer is accepted, commit to and effect), by consent decree, hold separate order or otherwise, the sale, divestiture, transfer, license or other disposition (including by licensing any Intellectual Property) of any assets or businesses of the Company or its Subsidiaries; (ii) propose, negotiate and offer to commit and to effect (and if such offer is accepted, commit to and effect), by consent decree, hold separate order or otherwise, behavioral limitations on the assets or businesses of the Company or its Subsidiaries; (iii) propose, negotiate and offer to commit and to effect (and if such offer is accepted, commit to and effect), by consent decree, hold separate order or otherwise, the termination, modification, transfer or other action with respect to any existing relationships and contractual rights and obligations of the Company and its Subsidiaries; (iv) otherwise offer to take or offer to commit to take any action that it is capable of taking and, if the offer is accepted,

take or commit to take such action, that limits or affects its freedom of action; and (v) in the event that any permanent or preliminary injunction or other Order of any Governmental Entity is entered or becomes reasonably foreseeable to be entered in any Proceeding that would make consummation of the Transactions unlawful or that would prevent or delay consummation of the Transactions, any and all steps (including the appeal thereof, the posting of a bond or the taking of the steps contemplated by clauses (i), (ii), (iii) and (iv) of this Section 5.7(e)) necessary to vacate, modify or suspend such injunction or Order; provided, however, that Parent and its Subsidiaries shall not be obligated to take the foregoing actions contemplated by this sentence, in each case, to the extent such actions would have or would reasonably be expected to have, individually or in the aggregate, a material adverse effect on the business, operations or financial condition of the Company and its Subsidiaries, taken as a whole, after giving effect to the Merger. Notwithstanding anything to the contrary herein, Parent's obligations under this Section 5.7(e) shall be absolute and not qualified by "commercially reasonable efforts" or "reasonable best efforts." The entry by any Governmental Entity in any Proceeding of an Order permitting the consummation of the transactions contemplated hereby but requiring any of the steps contemplated by clauses (i), (ii), (iii) and (iv) of this Section 5.7(e) shall not, individually or in the aggregate, be deemed a failure to satisfy any condition specified in Article 6.

(f)Notwithstanding anything to the contrary in this Section 5.7, from the date of this Agreement until the Closing, neither Parent nor any of its affiliates shall acquire or agree to acquire, by merging with or into or consolidating with, or by purchasing a substantial portion of the assets of or any equity in, or by any other manner, any assets or Person, if the execution and delivery of a definitive agreement relating to, or the consummation of, such acquisition would be reasonably expected to prevent the consummation of the Transactions by the Outside Date.

5.8Employee Benefit Matters

(a)During the period commencing at the Closing Date and ending on the date that is twelve months following the Closing Date (the "Continuation Period"), Parent shall provide or cause the Parent Subsidiaries, including the Surviving Corporation, to provide to each employee of the Company and its Subsidiaries immediately prior to the Effective Time (each a "Continuing Employee"), during any period of employment with the Surviving Corporation during the Continuation Period, (i) an annual base salary or wage rate and a target annual cash bonus opportunity that is not less than the annual base salary or wage rate provided to such Continuing Employee immediately prior to the Effective Time and (ii) other compensation and benefits (excluding equity and equity-based compensation and defined benefit pension benefits) that are substantially equivalent in the aggregate to the other compensation and benefits (excluding equity and equity-based compensation and defined benefit pension benefits) provided to such Continuing Employees immediately prior to the Effective Time. During the Continuation Period, Parent shall provide or cause the Parent Subsidiaries, including the Surviving Corporation, to provide each Continuing Employee with the severance benefits set forth on Section 5.8(a) of the Company Disclosure Schedule.

(b)Without limiting the generality of Section 5.8(a), from and after the Effective Time, Parent shall, or shall cause the Parent Subsidiaries, including the Surviving Corporation, to, assume, honor and continue during the Continuation Period or, if sooner, until

all obligations thereunder have been satisfied, each Company Benefit Plan, in each case, as in effect at the Effective Time, in accordance with the terms of such Company Benefit Plans. For the avoidance of doubt, nothing herein shall impede Parent's ability to amend each Company Benefit Plan in accordance with the terms therein.

(c)In furtherance of Section 5.8(a)(i), if the Effective Time occurs prior to the payment of any outstanding amounts under each Company Benefit Plan that is a fiscal 2022 cash-based short-term bonus plan (a "2022 Bonus Plan"), Parent shall, or shall cause its affiliates (including the Surviving Corporation and its Subsidiaries) to (A) pay, at the time that the Company and its Subsidiaries would have customarily made such bonus payments, a bonus to each Continuing Employee who participates in a 2022 Bonus Plan that is no less than the amount earned (but not paid) for such Continuing Employee as of the Closing Date under each such 2022 Bonus Plan, as determined and paid in accordance with the terms of, and subject to the conditions of, the applicable 2022 Bonus Plan, and (B) to the extent the Effective Time occurs in calendar year 2022, maintain the 2022 Bonus Plans on the same terms and conditions, and with respect to the same targets and performance measures, as were in effect immediately prior to the Effective Time; provided, however, that bonuses paid to Continuing Employees under such 2022 Bonus Plans shall be paid at no less than target.

(d)With respect to benefit plans maintained by Parent or any of the Parent Subsidiaries, including the Surviving Corporation (including any vacation, paid time-off and severance plans, but excluding any plan providing for qualified or non-qualified defined benefit pension benefits, nonqualified deferred compensation, equity or equity-based compensation, or post-termination or retiree health or welfare benefits), for all purposes, including determining eligibility to participate, level of benefits, vesting and benefit accruals, each Continuing Employee's service with the Company or any of its Subsidiaries, as reflected in the Company's records, shall be treated as service with Parent or any of the Parent Subsidiaries, including the Surviving Corporation; provided, however, that such service need not be recognized to the extent that such recognition would result in any duplication of benefits.

(e)Parent shall, or shall cause the Parent Subsidiaries (including the Surviving Corporation) to use reasonable efforts to, waive, or cause to be waived, any pre-existing condition limitations, exclusions, evidence of insurability, actively-at-work requirements and waiting periods under any welfare benefit plan maintained by Parent or any of the Parent Subsidiaries in which Continuing Employees (and their eligible dependents) will be eligible to participate from and after the Effective Time, except to the extent that such pre-existing condition limitations, exclusions, actively-at-work requirements and waiting periods would not have been satisfied or waived under the comparable Company Benefit Plan immediately prior to the Effective Time. Parent shall, or shall cause the Parent Subsidiaries, including the Surviving Corporation, to use reasonable efforts to recognize, or cause to be recognized, the dollar amount of all co-payments, deductibles and similar expenses incurred by each Continuing Employee (and his or her eligible dependents) during the calendar year in which the Effective Time occurs for purposes of satisfying such year's deductible and co-payment limitations under the relevant welfare benefit plans in which such Continuing Employee (and dependents) will be eligible to participate from and after the Effective Time.

(f)Without limiting the generality of Section 9.9, the provisions of this Section 5.8 are solely for the benefit of the parties to this Agreement, and no Continuing Employee or other current or former service provider of the Company (including any beneficiary or dependent thereof) shall be regarded for any purpose as a third-party beneficiary of this Agreement, and no provision of this Section 5.8 shall create such rights in any such individuals. Nothing contained in this Agreement shall: (i) guarantee employment for any period of time or preclude the ability of Parent, the Surviving Corporation or their respective affiliates to terminate the employment of any Continuing Employee at any time and for any reason; (ii) require Parent, the Surviving Corporation or any of their respective affiliates to continue any Company Benefit Plan or other employee benefit plans, programs or Contracts or prevent the amendment, modification or termination thereof following the Closing; or (iii) amend any Company Benefit Plans or other employee benefit plans, programs or Contracts.

5.9Indemnification.

(a)From and after the Effective Time, Parent shall, and shall cause the Surviving Corporation to, indemnify, defend and hold harmless, and shall advance expenses as incurred by, to the fullest extent permitted under (i) applicable Law, (ii) the Company Charter, the Company Bylaws or similar organization documents in effect as of the date of this Agreement and (iii) any Contract of the Company or its Subsidiaries in effect as of the date of this Agreement, each present and former director and officer of the Company and its Subsidiaries and each of their respective employees who serves as a fiduciary of a Company Benefit Plan (in each case, when acting in such capacity) (each, an "Indemnitee" and, collectively, the "Indemnitees") against any costs or expenses (including reasonable attorneys' fees), judgments, settlements, fines, losses, claims, damages or liabilities incurred in connection with any actual or alleged Proceeding or investigation, whether civil, criminal, administrative or investigative, whenever asserted, arising out of or pertaining to matters existing or occurring at or prior to the Effective Time, including in connection with (A) this Agreement or the Transactions and (B) actions to enforce this provision or any other indemnification or advancement right of any Indemnitee.

(b)Parent agrees that all rights to exculpation, indemnification and advancement of expenses arising from, relating to, or otherwise in respect of, acts or omissions occurring at or prior to the Effective Time (including in connection with this Agreement or the Transactions) existing as of the Effective Time in favor of the current or former directors or officers of the Company or any of its Subsidiaries and each of their respective employees who serves as a fiduciary of a Company Benefit Plan (in each case, when acting in such capacity) as provided in its certificates of incorporation, bylaws or other organizational documents shall survive the Merger and shall continue in full force and effect in accordance with their terms. For a period of no less than six (6) years from the Effective Time, Parent shall cause the Surviving Corporation to, and the Surviving Corporation shall, maintain in effect the exculpation, indemnification and advancement of expenses provisions of the applicable party's certificate of incorporation and bylaws or similar organization documents in effect as of the date of this Agreement or in any Contract of the Company or its Subsidiaries with any of their respective directors, officers or employees in effect as of the date of this Agreement, and shall not amend, repeal or otherwise modify any such provisions in any manner that would adversely affect the rights thereunder of any individuals who immediately before the Effective Time were current or

former directors, officers or employees of the Company or its Subsidiaries; provided, however, that all rights to exculpation, indemnification and advancement of expenses in respect of any Proceeding pending or asserted or any claim made within such period shall continue until the final disposition of such Proceeding.

(c)For six (6) years from and after the Effective Time, Parent and the Surviving Corporation shall be jointly and severally responsible for maintaining for the benefit of the directors and officers of the Company, as of the date of this Agreement and as of the Closing Date, an insurance and indemnification policy that provides coverage for events occurring at or prior to the Effective Time (the "D&O Insurance") that is substantially equivalent to and in any event not less favorable in the aggregate than the existing policy of the Company, or, if substantially equivalent insurance coverage is unavailable, the best available coverage; provided, however, that Parent and the Surviving Corporation shall not be required to pay an annual premium for the D&O Insurance in excess of 300% of the last annual premium paid by the Company prior to the date of this Agreement, it being understood that if the total premiums payable for such insurance coverage exceeds such amount, Parent shall obtain a policy with the greatest coverage available for a cost equal to such amount. The provisions of the immediately preceding sentence shall be deemed to have been satisfied if prepaid policies have been obtained by the Company prior to the Effective Time, which policies provide such directors and officers with such coverage for an aggregate period of six (6) years with respect to claims arising from facts or events that occurred on or before the Effective Time, including in respect of this Agreement or the Transactions. For the avoidance of doubt, and notwithstanding anything herein to the contrary, the Company shall be permitted, at its sole discretion, to obtain such prepaid policies (subject to the aforementioned premium cap) that provide such coverage prior to the Effective Time.

(d)In the event that either Parent or the Surviving Corporation or any of its successors or assigns (i) consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger or (ii) transfers or conveys all or substantially all of its properties and assets to any Person, then, and in each case, Parent shall, and shall cause the Surviving Corporation to, cause proper provision to be made so that such successor or assign shall expressly assume the obligations set forth in this Section 5.9.

(e)The provisions of this Section 5.9 are (i) intended to be for the benefit of, and shall be enforceable by, each Indemnitee, his or her heirs and his or her representatives and (ii) in addition to, and not in substitution for, any other rights to indemnification or contribution that any such individual may have under the Company Charter, the Company Bylaws or similar organization documents in effect as of the date of this Agreement or in any Contract of the Company or its Subsidiaries in effect as of the date of this Agreement. The obligations of Parent under this Section 5.9 shall not be terminated or modified in such a manner as to adversely affect the rights of any Indemnitee to whom this Section 5.9 applies unless the affected Indemnitee shall have consented in writing to such termination or modification (it being expressly agreed that the Indemnitees to whom this Section 5.9 applies shall be third party beneficiaries of this Section 5.9).

(f)Nothing in this Agreement is intended to, shall be construed to or shall release, waive or impair any rights to directors' and officers' insurance claims under any

policy that is or has been in existence with respect to the Company or any of its Subsidiaries for any of their respective directors, officers or employees, it being understood and agreed that the indemnification or advancement of expenses provided for in this Section 5.9 is not prior to or in substitution for any such claims under such policies.

5.10 Parent Agreements Concerning Merger Sub. During the period from the date of this Agreement and the earlier of the Effective Time and the valid termination of this Agreement in accordance with Article 7, Merger Sub shall not engage in any activity of any nature except for activities contemplated by, related to or in furtherance of the Transactions (including enforcement of its rights under this Agreement) or as provided in or contemplated by this Agreement. Parent hereby guarantees the due, prompt and faithful payment, performance and discharge by Merger Sub of, and the compliance by Merger Sub with, all of the covenants, agreements, obligations and undertakings of Merger Sub under this Agreement in accordance with the terms of this Agreement, and covenants and agrees to take all actions necessary or advisable to ensure such payment, performance and discharge by Merger Sub hereunder.

5.11 Takeover Statutes. If any state takeover Law or state Law that purports to limit or restrict business combinations or the ability to acquire or vote Shares (including any "control share acquisition," "fair price," "business combination" or other similar takeover Law) becomes or is deemed to be applicable to the Company, Parent or Merger Sub, the Merger or any other transaction contemplated by this Agreement, then the Company and the Company Board shall take all actions required to render such Law inapplicable to the foregoing.

5.12 Section 16 Matters. Prior to the Effective Time, the Company and Parent shall take all such steps as may be reasonably necessary to cause any dispositions of Shares (including derivative securities with respect to Shares) resulting from the Transactions by each individual who is subject to the reporting requirements of Section 16(a) of the Exchange Act with respect to the Company, to be exempt under Rule 16b-3 promulgated under the Exchange Act.

5.13 Stockholder Litigation. The Company shall give Parent reasonable opportunity to participate in the defense or settlement of any stockholder litigation against the Company and/or its directors and officers relating to the Transactions, including the Merger. The Company shall promptly notify Parent of any such litigation that is brought or threatened in writing, and shall keep Parent reasonably and promptly informed on a current basis with respect to the status thereof. Without limiting the generality of the foregoing, the Company shall not settle any such stockholder litigation or related Proceeding without the prior written consent of Parent (which consent shall not be unreasonably withheld, conditioned or delayed).

5.14 Stock Exchange Delisting. The Surviving Corporation shall cause the Company's securities to be de-listed from the NYSE and de-registered under the Exchange Act as promptly as practicable following the Effective Time, and prior to the Effective Time the Company shall reasonably cooperate with Parent with respect thereto.

5.15 Publicity. The initial press release announcing this Agreement, any ancillary agreements and the Transactions shall be in substantially the form mutually agreed upon by Parent and the Company. No other press release, public announcement or public filing

related to this Agreement or the transactions contemplated herein, or prior to the Closing any other announcement or communication to the employees, customers or suppliers of the Company or its Subsidiaries, shall be issued or made by any party hereto without the joint approval of Parent and the Company (which approval shall not be unreasonably withheld, conditioned or delayed), unless required by Law or stock exchange rules; provided that (x) no party hereto shall be required to obtain approval or provide materials for review in respect of information that has previously been made public without breach of the obligations under this Section 5.15 and contained in the applicable press release, announcement, public filing or communication, (y) the Company shall not be required to obtain approval or provide materials for review with respect to any matters referred to in, and made in compliance with, Section 5.3 and (z) Parent and its affiliates shall be permitted to make communications to, and provide ordinary course information to the Debt Financing Sources, and any equityholders, existing or prospective partners, members, managers and investors of Parent or its affiliates, in each case, who are subject to customary confidentiality restrictions. In the event that any such additional press release, public announcement or public filing is required by or advisable under applicable Law or stock exchange rules, the party obligated to make such press release, public announcement or public filing shall use its reasonable best efforts to provide the other party with reasonable advance notice of such requirement and the content of the proposed press release, announcement or filing and a reasonable opportunity to review and comment on such release, announcement or filing and consider in good faith any comments with respect thereto.

5.16Company Indebtedness.

(a)On the Closing Date, Parent and the Company shall, as and to the extent required by the Indentures relating to the Company's Senior Notes in connection with the Transactions, cause to be delivered the officer's certificate, opinion of counsel and any other notices or documentation required by the Indentures in connection with the Merger, it being understood that in no event shall the Company or any of its Subsidiaries be required to bear any out-of-pocket third party cost or expense or pay any fee (other than those costs and fees that Parent commits to reimburse) in connection with the delivery of such officer's certificate, opinion or other notices or documentation. The Company shall provide Parent and its counsel a reasonable opportunity to review and comment on such officers' certificate, legal opinion and other notices or documentation prior to the delivery thereof, each of which shall be subject to the prior approval of Parent (such approval not to be unreasonably withheld, conditioned or delayed).

(b)Parent or Merger Sub will be permitted to commence and conduct, in accordance with the terms of the Indentures, one or more offers to purchase, including any "Change of Control Offer" (as such term is defined in the Indentures) and/or any tender offer, or any exchange offer, and to conduct one or more consent solicitations, if any (each such offer or solicitation by Parent or Merger Sub, a "Debt Offer" and, collectively, the "Debt Offers") in connection with the Merger and the other Transactions. Each of the Company and its Subsidiaries shall use its respective reasonable best efforts to, and will use its respective reasonable best efforts to cause its respective affiliates, officers, employees and Representatives (and, in the case of the Company, the trustees under the Indentures) to, reasonably cooperate with Parent and Merger Sub in good faith to permit any such Debt Offer to be effected on such terms, conditions and timing as reasonably requested by Parent, including, if so reasonably

requested by Parent, causing any such Debt Offer to be consummated substantially concurrently with the Closing, and Parent shall, and the Company shall reasonably assist and cooperate with Parent to, prepare any documentation related thereto, and shall provide the Company reasonable time to review such documentation; it being understood that in no event shall the Company or any of its Subsidiaries be required to incur any financing or provide assistance in obtaining any financing for a Debt Offer other than in connection with the Debt Financing contemplated by Section 5.5 and in accordance with the terms thereof; it being further understood that no such Debt Offer shall delay the Closing beyond the date that it is required to occur under Section 1.2. The closing (or, if applicable, operativeness) of the Debt Offers will be expressly conditioned on the occurrence of the Closing or the acceptance for purchase of the applicable Senior Notes by Parent, and the parties will use reasonable best efforts to cause the Debt Offers to close (or become operative) on the Closing Date. The Debt Offers will be conducted in compliance with the applicable Indentures and applicable law and the Company will not be required to cooperate with respect to any Debt Offer that would reasonably be expected to be inconsistent with the terms of the Indentures or applicable law.

(c)Subject to the receipt of any requisite consents, the Company and its Subsidiaries will execute one or more supplemental indentures to the applicable Indentures in accordance with the Indentures, amending the terms and provisions of the applicable Indentures as described in the applicable Debt Offer, as reasonably requested by Parent, which supplemental indentures shall become effective upon the execution thereof and operative no earlier than the Closing Date or the acceptance for purchase of the Senior Notes by Parent, and will use reasonable best efforts to cause the applicable trustee under the applicable Indentures (the "Trustee") to enter into such supplemental indenture; provided, however, that in no event will the Company or any of its officers, directors or other Representatives have any obligation to authorize, adopt or execute any amendments or other agreement that would reasonably be expected to be inconsistent with the terms of the Indentures or applicable law or would become operative before the Closing Date or the time of acceptance for purchase of the applicable Senior Notes by Parent. Subject to the terms and conditions of this Section 5.16, the Company will provide and will use reasonable best efforts to have its officers and Representatives and Subsidiaries provide all cooperation reasonably requested by Parent in connection with the execution of supplemental indentures. If requested by Parent, the Company will use its reasonable best efforts to cause its legal counsel to provide all customary legal opinions required in connection with the transactions contemplated by this Section 5.16 to the extent such legal opinion is required to be delivered before the Closing Date. Notwithstanding the foregoing, in no event will the Company or its legal counsel be required to give an opinion with respect to a Debt Offer that in the opinion of the Company, its legal counsel or the Trustee, does not comply with applicable law or the applicable Indenture.

(d)If requested by Parent, in lieu of or in addition to Parent or Merger Sub commencing any Debt Offers for the Senior Notes, the Company shall (i) send any notices of redemption with respect to all or a portion of the outstanding aggregate principal amount of any Senior Notes (which shall be in form required under the Indentures and conditioned upon the consummation of the Closing, if sent prior to the Closing) to the Trustee, (ii) take such actions as may be required under each Indenture to cause the Trustee to proceed with the redemption of the applicable Senior Notes under such Indenture and to provide the notice of redemption (conditioned upon consummation of the Closing if provided prior to the Closing) to the holders

of such Senior Notes pursuant to the applicable Indenture and (iii) prepare and deliver all other documents required under each Indenture (including any officer's certificates and legal opinions) as may be required under each Indenture to issue notices of redemption (conditioned upon consummation of the Closing, if issued prior to the Closing) for such Senior Notes in accordance with the Indentures, as well as providing (x) for the redemption on the Closing Date or such later date as shall be specified by Parent for such Senior Notes or (y) for satisfaction and discharge of the Senior Notes and the release of any liens with respect thereto on the Closing Date, in each case, pursuant to the requisite provisions of the applicable Indenture (subject to the consummation of the Closing, if sent prior to the Closing).

(e)If permitted by the applicable Indenture, the notices of redemption delivered to the Trustee and holders of the Senior Notes (if delivered prior to Closing) may state that the redemption date may be delayed until such time as any condition to redemption stated therein shall be satisfied or such redemption may not occur and such notice may be rescinded in the event such condition shall not have been satisfied. On or prior to the Closing, Parent shall make, or cause to be made, a deposit with the Trustee of funds sufficient to pay in full the outstanding aggregate principal amount of, accrued and unpaid interest through the applicable redemption date on, and applicable redemption premiums related to, the Senior Notes so redeemed, together with payment of other fees and expenses payable by the Company under each Indenture.

(f)Promptly following the written request of the Company, Parent shall reimburse the Company or its designee for any reasonable, documented out-of-pocket expenses (including reasonable attorneys' fees) incurred by the Company and/or its Subsidiaries in connection with the assistance required by this Section 5.16. Parent shall indemnify and hold harmless the Company and its Subsidiaries and their respective Representatives from and against any and all liabilities or losses suffered or incurred by them in connection with any Debt Offer, in each case, other than to the extent any of the foregoing was suffered or incurred as a result of the intentional misrepresentation, bad faith, gross negligence or willful misconduct of, or material breach of this Agreement by, the Company and its Subsidiaries or any of their Representatives.

(g)The Company shall have delivered to Parent at least two (2) Business Days prior to the Closing Date (A) an appropriate and customary payoff letter with respect to the Company Credit Facility (the "Payoff Letters"), in each case, specifying the aggregate payoff amount of the Company's obligations (including principal, interest, fees, expenses, premium (if any) and other amounts payable in respect of such indebtedness) that will be outstanding under such indebtedness as of the Closing and providing for a release of all Liens and guarantees thereunder upon the receipt of the respective payoff amounts specified in the Payoff Letter (it being understood and agreed that Parent and Merger Sub shall be responsible for paying all amounts under the Payoff Letters) and (B) all documentation relating to the release of all Liens with respect to the Company Credit Facility and the Secured Notes Indentures (including any termination statements on Form UCC-3, or other releases).

5.17Transfer Taxes. All transfer, documentary, sales, use, stamp, registration and other similar Taxes and all conveyance fees, recording charges and other fees and charges (including any penalties and interest) incurred by the Company or any of its Subsidiaries or the

Surviving Corporation in connection with the Merger shall be borne by the Surviving Corporation and its Subsidiaries.

5.18 India MTO.

(a) Parent hereby agrees that it shall undertake and effect the India MTO in accordance with, and to the extent required by, applicable Law.

(b) The Company shall, and shall cause its Subsidiaries and direct its and their respective Representatives to, use reasonable best efforts to cooperate and promptly provide such information and take such actions as may be reasonably requested by Parent in connection with its obligation to commence the India MTO (it being understood that the Company and Parent shall each pay for and be responsible for 50% of any fees or expenses incurred in connection with such actions).

(c) Parent acknowledges and agrees that the price per share of Federal Mogul Goetze (India) Ltd. to be offered in the India MTO shall be INR 275, which represents a 16.5% premium to the volume weighted average price of such shares on the National Stock Exchange of India Limited for a period of sixty (60) trading days immediately preceding the date hereof, and a 2.7% premium to the three-month high of the traded price of such shares on the National Stock Exchange of India Limited as of the date hereof.

ARTICLE 6
CONDITIONS TO CONSUMMATION OF THE MERGER

6.1 Conditions to Obligations of Each Party under This Agreement. The respective obligations of each party to consummate the Merger shall be subject to the satisfaction (or waiver, if permissible under Law) at or prior to the Effective Time of each of the following conditions:

(a) The Company Stockholder Approval shall have been obtained.

(b) No Restraints. No outstanding Order enacted, promulgated, issued, entered, amended or enforced by any Governmental Entity that restrains, enjoins or otherwise prohibits or makes illegal the consummation of the Merger shall be in effect (each restraint described by this Section 6.1(b), a "Closing Legal Impediment").

(c) Regulatory Approvals. (i) The applicable waiting periods under the HSR Act shall have expired or been terminated, (ii) all approvals, consents and consultations required to consummate the transactions contemplated by this Agreement pursuant to any other Antitrust Law of any jurisdiction listed on Section 6.1(c) of the Company Disclosure Schedule shall have been obtained or any applicable waiting period thereunder shall have been terminated or shall have expired, and (iii) all FDI Approvals listed on Section 6.1(c) of the Company Disclosure Schedule shall have been obtained or any applicable waiting period thereunder shall have been terminated or shall have expired.

6.2Conditions to Obligations of the Company under This Agreement. The obligation of the Company to effect the Merger is further subject to the fulfillment (or waiver by the Company) at or prior to the Effective Time of the following conditions:

(a)The representations and warranties (i) set forth in the Parent and Merger Sub Fundamental Reps shall be true and correct in all material respects, as of the date hereof and as of the Closing Date with the same effect as though made as of such date (except to the extent expressly made as of an earlier date, in which case as of such earlier date), and (ii) set forth in Article 4 (other than the Parent and Merger Sub Fundamental Reps) shall be true and correct (disregarding all qualifications or limitations as to "materiality" and words of similar import set forth therein) as of the date hereof and as of the Closing Date with the same effect as though made as of such date (except to the extent expressly made as of an earlier date, in which case as of such earlier date), except, in the case of this clause (ii), where the failure to be true and correct has not had and would not reasonably be expected to have, individually or in the aggregate with all other failures to be true or correct, a Parent Material Adverse Effect.

(b)Parent and Merger Sub shall have performed in all material respects the covenants and agreements required to be performed by them under this Agreement at or prior to the Closing, subject to the right to cure such failure (if curable) by the earlier of (i) fifteen (15) Business Days after the Company provided written notice of such failure to Parent and (ii) the third (3rd) Business Day prior to the Outside Date.

(c)Parent shall have delivered to the Company a certificate, dated the Closing Date and signed by the chief executive officer or the chief financial officer of Parent, certifying to the effect that the conditions set forth in Sections 6.2(a) and 6.2(b) have been satisfied.

6.3Conditions to Obligations of Parent and Merger Sub under This Agreement. The obligations of Parent and Merger Sub to effect the Merger are further subject to the fulfillment (or waiver by Parent and Merger Sub) at or prior to the Effective Time of the following conditions:

(a)The representations and warranties (i) set forth in Section 3.2(a) shall be true and correct in all respects (except for any *de minimis* inaccuracies), as of the date hereof and as of the Closing Date with the same effect as though made as of such date (except to the extent expressly made as of an earlier date, in which case as of such earlier date), (ii) set forth in the Company Fundamental Reps (other than the representations and warranties listed in the immediately preceding clause (i)) shall be true and correct in all material respects, as of the date hereof and as of the Closing Date with the same effect as though made as of such date (except to the extent expressly made as of an earlier date, in which case as of such earlier date), and (iii) set forth in Article 3 (other than the representations and warranties listed in the immediately preceding clauses (i) and (ii)) shall be true and correct (disregarding all qualifications or limitations as to "materiality", "Material Adverse Effect" and words of similar import set forth therein) as of the date hereof and as of the Closing Date with the same effect as though made as of such date (except to the extent expressly made as of an earlier date, in which case as of such earlier date), except, in the case of this clause (iii), where the failure to be true and correct has

not had, and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect.

(b)The Company shall have performed in all material respects the covenants and agreements required to be performed by it under this Agreement at or prior to the Closing, subject to the Company's right to cure such failure (if curable) by the earlier of (i) fifteen (15) Business Days after Parent provided written notice of such failure to the Company and (ii) the third (3rd) Business Day prior to the Outside Date.

(c)Since the date hereof, there shall not have been a Company Material Adverse Effect under clause (b) of the definition thereof.

(d)Parent shall have received a certificate signed on behalf by the chief executive officer or the chief financial officer of the Company stating that the conditions set forth in Sections 6.3(a) and 6.3(b) have been satisfied.

6.4Frustration of Closing Conditions. No party hereto may rely on the failure of any condition set forth in this Article 6 to be satisfied if such failure was caused by such party's material breach of any provision of this Agreement.

ARTICLE 7
TERMINATION, AMENDMENT AND WAIVER

7.1Termination. This Agreement may be terminated, and the Merger and the other Transactions may be abandoned at any time prior to the Effective Time, whether before or (subject to the terms hereof) after receipt of the Company Stockholder Approval, by action taken or authorized by the board of directors or similar governing body of the terminating party or parties:

(a)By mutual written consent of Parent and the Company at any time prior to the Effective Time;

(b)By Parent (on behalf of itself and Merger Sub), if the Transactions have not been consummated on or before the Outside Date; provided, that Parent shall not be entitled to terminate this Agreement pursuant to this Section 7.1(b) if Parent's breach of this Agreement has been the principal cause of the failure of the Closing to occur prior to the Outside Date;

(c)By the Company, if the Transactions have not been consummated on or before the Outside Date; provided, that the Company shall not be entitled to terminate this Agreement pursuant to this Section 7.1(c) if the Company's breach of this Agreement has been the principal cause of the failure of the Closing to occur prior to such Outside Date;

(d)By the Company, prior to the time at which the Company Stockholder Approval has been obtained, if such termination is permitted by Section 5.3(d)(ii) (*Superior Proposal*); provided, that the Company shall not be entitled to terminate this Agreement pursuant to this Section 7.1(d) unless the Company complies in all material respects with the requirements of Section 5.3(d)(ii) (*Superior Proposal*) before the Company terminates

pursuant to this Section 7.1(d) and concurrently with such termination the Company pays or causes to be paid to Parent the Company Termination Fee in accordance with Section 7.2(b)(i);

(e)By Parent, prior to the time at which the Company Stockholder Approval has been obtained, if (i) the Company Board shall have effected a Company Board Recommendation Change, whether or not in compliance with Section 5.3 (it being understood and agreed that any written notice provided to Parent (and not made public by the Company or its Subsidiaries or their respective Representatives) of the Company's intention to make a Company Board Recommendation Change prior to effecting such Company Board Recommendation Change in accordance with Section 5.3 shall not by itself constitute a Company Board Recommendation Change), or (ii) the Company shall have entered into a merger agreement, letter of intent or other similar agreement relating to an Acquisition Proposal;

(f)By either the Company or Parent (on behalf of itself and Merger Sub), if the Company Meeting (as it may be adjourned or postponed in accordance with this Agreement) shall have concluded and the Company Stockholder Approval shall not have been obtained at such meeting;

(g)By either the Company or Parent (on behalf of itself and Merger Sub), if (i) there is in effect any final, non-appealable Closing Legal Impediment or (ii) Section 6.1(c) (*Regulatory Approvals*) is not satisfied as of the Outside Date; provided, that neither Parent nor the Company may terminate this Agreement pursuant to this Section 7.1(g) if a material breach of Parent's or the Company's, respectively, obligations under this Agreement has been the principal cause of such Order, applicable Law or failure of such condition to be satisfied;

(h)By Parent (on behalf of itself and Merger Sub), if Parent is not in material breach of any of its obligations under this Agreement, and if the Company has breached in any material respect any of its representations or warranties or failed to perform in any material respect any its covenants or other agreements contained in this Agreement, which breach or failure to perform would render any condition contained in Section 6.1(a), (*Company Stockholder Approval*), Section 6.1(b) (*No Restraints*), Section 6.1(c) (*Regulatory Approvals*), Section 6.3(a) (*Company Representations and Warranties*) or Section 6.3(b) (*Company Covenants*) incapable of being satisfied by the Outside Date, or if capable of being satisfied by the Outside Date, shall not have been cured prior to the earlier of (i) thirty (30) Business Days after Parent provided written notice of such breach to the Company and (ii) the third Business Day prior to the Outside Date;

(i)By the Company, if it is not in material breach of any of its obligations under this Agreement, and if Parent or Merger Sub shall have breached in any material respect any of their representations or warranties or failed to perform in any material respect any of their covenants or other agreements contained in this Agreement, which breach or failure to perform would render any condition contained in Section 6.1(a) (*Company Stockholder Approval*), Section 6.1(b) (*No Restraints*), Section 6.1(c) (*Regulatory Approvals*), Section 6.2(a) (*Parent Representations and Warranties*) or Section 6.2(b) (*Parent Covenants*) incapable of being satisfied by the Outside Date, or if capable of being satisfied by the Outside Date, shall not have been cured prior to the earlier of (i) thirty (30) Business Days after the Company provided

written notice of such breach to Parent and (ii) the third Business Day prior to the Outside Date; or

(j)By the Company, if (i) the Marketing Period has ended and all of the conditions to the obligations of the Parent to consummate the Closing set forth in Section 6.1 and Section 6.2 (other than those conditions that by their terms are to be satisfied by the delivery of documents or taking of any other action at the Closing, but subject to such conditions being capable of being satisfied at the Closing) have been satisfied or waived and the date on which the Closing should have taken place pursuant to Section 1.2 has occurred, (ii) the Company has delivered to Parent a written notice at least three (3) Business Days prior to such termination confirming that, if Parent performed its obligations hereunder to consummate the Closing and the Debt Financing was funded, the Company is ready, willing and able to consummate the Closing and (iii) Parent has failed to consummate the Closing pursuant to Section 1.2 within three (3) Business Days after the later to occur of (x) delivery of the written notice specified in clause (ii) above and (y) the date by which the Closing is required to have occurred pursuant to Section 1.2.

7.2Termination Fees and Expenses.

(a)Parent shall pay to the Company the Reverse Termination Fee if any of the following occur:

(i)this Agreement is terminated by Parent pursuant to Section 7.1(b) (*Outside Date*) or by the Company pursuant to Section 7.1(c) (*Outside Date*) if at the time of, or prior to, such termination pursuant to Section 7.1(b) or Section 7.1(c), the Company would have been entitled to terminate this Agreement pursuant to Section 7.1(j) (*Failure to Close When Required*);

(ii)this Agreement is terminated by the Company pursuant to Section 7.1(j) (*Failure to Close When Required*); or

(iii)this Agreement is terminated by Parent pursuant to Section 7.1(b) (*Outside Date*) or terminated by the Company pursuant to Section 7.1(c) (*Outside Date*) and, in either case, at the time of such termination, (x) the condition set forth in Section 6.1(c) has not been satisfied solely because any of the approvals, consents and consultations required to consummate the transactions contemplated by this Agreement pursuant to the Antitrust Laws of any jurisdiction listed on Section 7.2(a)(iii) of the Company Disclosure Schedule have not been obtained or any applicable waiting period thereunder has not expired or been terminated (a "Specified Regulatory Requirement"), and Parent has not waived such condition with respect to such Specified Regulatory Requirement prior to the Outside Date, and (y) all other conditions set forth in Article 6 have been satisfied or waived (or, in the case of conditions that by their terms are to be satisfied at the Closing, are capable of being satisfied at the Closing).

(b)The Company shall pay or cause to be paid to Parent the Company Termination Fee if any of the following occur:

(i)this Agreement is terminated by the Company pursuant to Section 7.1(d) (*Superior Proposal*);

(ii)this Agreement is terminated by Parent pursuant to Section 7.1(e) (*Change in Recommendation*); or

(iii)(A) (1) the Company Meeting has not occurred prior to the Outside Date and either Parent or the Company terminates this Agreement pursuant to Section 7.1(b) (*Outside Date*) or Section 7.1(c) (*Outside Date*) or (2) either Parent or the Company terminates this Agreement pursuant to Section 7.1(f) (*Company Stockholder Approval*) or Section 7.1(h) (*Company Breach*), (B) a bona fide Acquisition Proposal (provided, that for purposes of this clause (iii), all references to "25%" in the definition of "Acquisition Proposal" will be deemed to be references to "50%") made by a Third Party has been publicly disclosed after the date of this Agreement and prior to the date of such termination and has not been withdrawn prior to the Outside Date, and (C) within twelve (12) months after such termination, the Company and/or its Subsidiaries consummate an Acquisition Proposal.

(c)Any Reverse Termination Fee or Company Termination Fee due under this Section 7.2 shall be paid to the appropriate party by wire transfer of same-day funds on the second (2nd) Business Day immediately following the date of termination of this Agreement, except that any Company Termination Fee payable pursuant to Section 7.2(b)(i) shall be paid concurrently with such termination (it being understood that in no event shall (i) Parent be required to pay the Reverse Termination Fee on more than one occasion or (ii) the Company be required to pay the Company Termination Fee on more than one occasion).

(d)The parties hereto acknowledge that (i) the agreements contained in this Section 7.2 are an integral part of the Transactions, and that without these agreements, the parties would not enter into this Agreement, and (ii) each of the Reverse Termination Fee and the Company Termination Fee, as applicable, if, as and when required to be paid pursuant to this Section 7.2, shall not constitute a penalty but will be liquidated damages, in a reasonable amount that will compensate the party receiving such amount in the circumstances in which it is payable for the efforts and resources expended and opportunities foregone while negotiating this Agreement and in reliance on this Agreement and on the expectation of the consummation of the Merger, which amount would otherwise be impossible to calculate with precision. Accordingly, (x) if Parent fails to promptly pay the amounts due pursuant to this Section 7.2 and, in order to obtain such payment, the Company commences a suit that results in a judgment against Parent for any amounts due pursuant to this Section 7.2, Parent shall pay to the Company the Company's and its affiliates' out-of-pocket, documented costs and expenses (including reasonable attorneys' fees) in connection with such suit, together with interest on the amount of any unpaid fee, cost or expense at the publicly announced prime rate of Citibank, N.A. from the date such fee, cost or expense was required to be paid to (but excluding) the payment date (collectively, "Termination Fee Collection Costs") and (y) if the Company fails to promptly pay the amounts due pursuant to this Section 7.2 and, in order to obtain such payment, Parent commences a suit that results in a judgment against the Company for any amounts due pursuant to this Section 7.2, the Company shall pay or cause to be paid to Parent Parent's and its affiliates' Termination Fee Collection Costs; provided that in no event shall any party be required to pay Termination Fee Collection Costs in an aggregate amount exceeding $5,000,000.

(e)Notwithstanding anything to the contrary in this Agreement, if Parent or Merger Sub breaches or fails to perform hereunder (whether willfully (including a

Willful and Material Breach), intentionally, unintentionally or otherwise), then the sole and exclusive remedy of the Company, its affiliates and each of its and its affiliates' respective direct or indirect current, former or future shareholders, partners, members, officers, directors, managers and employees, and their respective assignees (collectively, the "Company Related Parties"), whether at law, in equity, in contract, in tort or otherwise, against any of Parent, Merger Sub, any Guarantor, any Debt Financing Source, any of their respective affiliates, any of their and their affiliates' respective direct or indirect current, former or future shareholders, partners, members, officers, directors, managers and employees, and their respective assignees (collectively, the "Parent Related Parties") for any breach, loss, Liability or damage in connection with this Agreement, any other agreements and instruments contemplated hereby, or the Transactions (and the termination of this Agreement or any matter forming the basis for such termination) shall be the Company's right (i) to specific performance if and to the extent permitted by Section 9.11 (*Specific Performance*), (ii) to terminate this Agreement in accordance with and subject to the terms of Section 7.1 and receive payment of the Reverse Termination Fee, if applicable, *plus*, if applicable, the Termination Fee Collection Costs, if any, *plus* receipt of expense reimbursement and indemnity payments (if any) (up to an aggregate amount not exceeding $2,000,000) under Sections 5.5(b)(ii), 5.5(c) and 5.16(f), and (iii) to seek recovery of damages incurred or suffered as a result of a Willful and Material Breach of, or Fraud with respect to, any of Parent's representations, warranties, covenants or other agreements set forth in this Agreement where such Willful and Material Breach or Fraud is the principal cause of a condition contained in Section 6.1 or Section 6.2 to (x) be incapable of being satisfied by the Outside Date or (y) if capable of being satisfied by the Outside Date, to not have been satisfied by the Outside Date, provided, however, that in no event shall the aggregate amount of liabilities and damages recoverable from Parent pursuant to this clause (iii) exceed $108,000,000. In the event that Reverse Termination Fee is paid to the Company in accordance with Section 7.2(a), then the sole and exclusive remedy of the Company and the Company Related Parties, whether at law, in equity, in contract, in tort or otherwise, against any of Parent or the Parent Related Parties for any breach, loss or damage in connection with this Agreement, any other agreement or instrument contemplated hereby, or the Transactions (and the termination of this Agreement or any matter forming the basis for such termination) shall be as set forth in clause (ii) of the immediately preceding sentence. Except as expressly contemplated hereby, Parent will not (nor will any other Parent Related Party) have any other liability or obligation to the Company or any other Company Related Party relating to or arising out of this Agreement or any other agreement or instrument contemplated hereby, or in respect of any other document or theory of law or equity or in respect of any oral representations made or alleged to be made in connection herewith or therewith, whether at law or equity, in contract, in tort or otherwise, in each case, other than any obligations of any Guarantor under the Guaranty. Notwithstanding anything to the contrary herein, (x) this Section 7.2(e) shall not relieve Parent or Apollo Management IX, L.P. from any Liability for any breaches of the Confidentiality Agreement and (y) it is agreed and understood that, notwithstanding anything herein to the contrary, the Company shall be entitled, under all circumstances, to pursue claims for both specific performance or other injunctive or equitable relief under Section 9.11 (*Specific Performance*) as well as any Reverse Termination Fee or monetary damages hereunder, but shall not be entitled to receive both an award of monetary damages and the Reverse Termination Fee.

(f)Notwithstanding anything to the contrary in this Agreement, if the Company breaches or fails to perform hereunder (whether willfully (including a Willful and

Material Breach), intentionally, unintentionally or otherwise), then the sole and exclusive remedy of Parent and the Parent Related Parties, whether at law, in equity, in contract, in tort or otherwise, against any of the Company or the Company Related Parties for any breach, loss or damage in connection with this Agreement, any other agreement or instrument contemplated hereby, or the Transactions (and the termination of this Agreement or any matter forming the basis for such termination) shall be Parent's right (i) to specific performance if and to the extent permitted by Section 9.11 (*Specific Performance*), (ii) to terminate this Agreement in accordance with and subject to the terms of Section 7.1 and receive payment of the Company Termination Fee, if applicable, *plus* the Termination Fee Collection Costs, if any, and (iii) to seek recovery of damages incurred or suffered as a result of a Willful and Material Breach of, or Fraud with respect to, any of the Company's representations, warranties, covenants or other agreements set forth in this Agreement where such Willful and Material Breach or Fraud is the principal cause of a condition contained in Section 6.1 or Section 6.3 to (x) be incapable of being satisfied by the Outside Date or (y) if capable of being satisfied by the Outside Date, to not have been satisfied by the Outside Date, provided, however, that in no event shall the aggregate amount of liabilities and damages recoverable from the Company pursuant to this clause (iii) exceed $108,000,000. In the event that Company Termination Fee is paid to Parent in accordance with Section 7.2(b), then the sole and exclusive remedy of Parent and the Parent Related Parties, whether at law, in equity, in contract, in tort or otherwise, against any of the Company or the Company Related Parties for any breach, loss or damage in connection with this Agreement, any other agreement or instrument contemplated hereby, or the Transactions (and the termination of this Agreement or any matter forming the basis for such termination) shall be as set forth in clause (ii) of the immediately preceding sentence. Except as expressly contemplated hereby, the Company (or any other Company Related Party) will not have any other liability or obligation to Parent or any other Parent Related Party relating to or arising out of this Agreement or any other agreement or instrument contemplated hereby, or in respect of any other document or theory of law or equity or in respect of any oral representations made or alleged to be made in connection herewith or therewith, whether at law or equity, in contract, in tort or otherwise. Notwithstanding anything to the contrary herein, (x) this Section 7.2(f) shall not relieve the Company from any liability for any breaches of the Confidentiality Agreement and (y) it is agreed and understood that, notwithstanding anything herein to the contrary, Parent shall be entitled, under all circumstances, to pursue claims for both specific performance or other injunctive or equitable relief under Section 9.11 (*Specific Performance*) as well as any Company Termination Fee or monetary damages hereunder, but shall not be entitled to receive both an award of monetary damages and the Company Termination Fee.

(g)Notwithstanding anything herein to the contrary, the Company (on behalf of itself and the Company Related Parties) hereby waives any rights or claims against any Debt Financing Source or any affiliate of any Debt Financing Source or any of its or their respective direct or indirect current, former or future shareholders, partners, members, officers, directors, managers, employees, agents, advisors or other Representatives, or their respective assignees (collectively, including the Debt Financing Sources, the "Financing Source Related Parties") in connection with this Agreement, the Debt Financing or the Debt Financing Commitment Letters, whether at law or equity, in contract, in tort or otherwise, and the Company (on behalf of itself and the Company Related Parties) agrees not to commence (and if commenced, agree to dismiss or otherwise terminate) any Proceeding against any Financing Source Related Party in connection with this Agreement, the Debt Financing or the Debt

Financing Commitment Letters, other than, for the avoidance of doubt, from and after the Closing Date, under any definitive agreements executed in connection with the Debt Financing (but not, for the avoidance of doubt, under this Agreement) to the extent the Company and/or its affiliates are party thereto. In furtherance and not in limitation of the foregoing waiver, it is agreed that no Financing Source Related Party shall have any liability for any claims, losses, settlements, damages, costs, expenses, fines or penalties to the Company or the Company Related Parties in connection with this Agreement or the transactions contemplated by this Agreement, other than, for the avoidance of doubt, from and after the Closing Date, under any definitive agreements executed in connection with the Debt Financing (but not, for the avoidance of doubt, under this Agreement) to the extent the Company and/or its affiliates are party thereto. Notwithstanding the foregoing, nothing in this Section 7.2 shall in any way limit or modify the rights and obligations of Parent (or its permitted assignee) under the Debt Financing Commitment Letters.

7.3Effect of Termination; Limitation on Liability. Notwithstanding anything to the contrary in this Agreement, in the event this Agreement is validly terminated by either Parent or the Company as provided above, the provisions of this Agreement shall immediately become void and of no further force and effect and there shall be no liability or obligation on the part of any party hereunder (other than Sections 5.5(b)(ii) and 5.5(c) (*Parent Financing Assistance*), Section 5.16(f) (*Company Indebtedness*), this Article 7 (*Termination, Amendment and Waiver*), Section 8.1 (*Definitions*), Section 9.1 (*Fees and Expenses*), Section 9.5 (*References*), Section 9.6 (*Construction*), Section 9.9 (*Third Party Beneficiaries*), Section 9.10 (*Waiver of Trial by Jury*), Section 9.14 (*Governing Law*), Section 9.15 (*Consent to Jurisdiction*), Section 9.17 (*Non-Recourse*) and the last sentence of Section 5.2(a) (*Access to Information; Confidentiality*), each of which shall survive the termination of this Agreement). Notwithstanding anything to the contrary contained in this Agreement, (a) each of the Confidentiality Agreement and the Guaranty shall survive the termination of this Agreement in accordance with its respective terms and (b) subject to Section 7.2, nothing herein shall relieve the Company or Parent from damages in accordance with, and subject to the limitations of, Section 7.2(f)(iii) or Section 7.2(e)(iii), as applicable. Prior to any valid termination of this Agreement, nothing in this Article 7 shall be deemed to impair the right of any party to compel specific performance by another party of its obligations under this Agreement in accordance with the terms of this Agreement.

ARTICLE 8
DEFINITIONS

8.1Certain Definitions. For purposes of this Agreement, the term:

"Acceptable Confidentiality Agreement" means an agreement with the Company or its Subsidiaries that is executed, delivered and effective after the date hereof, containing provisions that require any counterparty thereto (and any of its affiliates and representatives named therein) that receive non-public information of or with respect to the Company or its Subsidiaries to keep such information confidential and refrain from using such information (subject to customary exceptions); provided, however, that, the provisions contained therein are not materially less favorable, in the aggregate, to the Company and its Subsidiaries than the terms of the Confidentiality Agreement (it being understood that such agreement need not

contain any "standstill" or similar provisions or otherwise prohibit the making of any Acquisition Proposal); provided, however, that such confidentiality agreement shall not prohibit compliance by the Company with any of the provisions of Section 5.3. For the avoidance of doubt, a joinder to an Acceptable Confidentiality Agreement pursuant to which a Third Party agrees to be bound by the confidentiality and use provisions of an Acceptable Confidentiality Agreement shall be an Acceptable Confidentiality Agreement.

"Acquisition Proposal" means, other than a proposal made by Parent or its affiliates with respect to the transactions contemplated by this Agreement, any *bona fide* written offer, proposal, indication of interest or inquiry by a third-party, contemplating or otherwise relating to any transaction or series of transactions involving any (i) direct or indirect acquisition, purchase or license (whether in a single transaction or a series of related transactions) of assets of the Company and its Subsidiaries constituting 25% or more of the consolidated assets of the Company and its Subsidiaries (excluding cash), or to which 25% or more of the net income, revenues or earnings of the Company and its Subsidiaries on a consolidated basis are attributable for the most recent fiscal year in which audited financial statements are then available; or (ii) direct or indirect acquisition or issuance (whether in a single transaction or a series of related transactions) of record or beneficial ownership of 25% or more of any class of equity or voting securities of the Company or securities convertible into or exchangeable for such securities (including by tender offer, exchange offer, self-tender, merger, amalgamation, consolidation, share exchange, business combination, joint venture, reorganization, recapitalization, liquidation, dissolution or similar transaction or series of related transactions) (any transaction described by the foregoing clauses (i) and (ii), an "Acquisition Transaction").

"Acquisition Transaction" has the meaning set forth in the definition of "Acquisition Proposal."

"affiliate" means, when used with respect to a specified Person, a Person that, directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with such specified Person. As used in this definition, the term "control" (including with correlative meanings, "controlled by" and "under common control with"), when used with respect to any specified Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities or other interests, by contract, agreement, obligation, indenture, instrument, lease, promise, arrangement, release, warranty, commitment, undertaking or otherwise. In no event shall a portfolio company (other than Parent or Merger Sub) or investment fund, in either case, affiliated with Parent or any of the Guarantors be considered to be an affiliate of the Company or any of its Subsidiaries or of Parent or Merger Sub.

"Anti-Corruption Laws" means all U.S. and non-U.S. Laws relating to the prevention of corruption and bribery, including the U.S. Foreign Corrupt Practices Act of 1977, as amended, and the UK Bribery Act of 2010.

"Antitrust Law" means the Sherman Act, as amended, the Clayton Act, as amended, the HSR Act, the Federal Trade Commission Act, as amended, and all other Laws of any jurisdiction that are designed or intended to prohibit, restrict or regulate actions having the purpose or effect of monopolization or restraint of trade or lessening of competition through

merger or acquisition (it being understood that Antitrust Law specifically excludes any Laws related to the Committee on Foreign Investment in the United States).

"Automotive Authority" means any foreign, federal or state regulatory authority governing the production or supply of products or services relating to the manufacture or servicing of automotive, marine, rail, aerospace or other vehicles.

"Automotive Law" means any foreign, federal, state or local Law regulating the production or supply of products or services relating to the manufacture or servicing of automotive, marine, rail, aerospace or other vehicles and all applicable orders, bulletins, interpretations, opinions, circular letters and directives of Governmental Entities relating to the regulation of the production or supply of products or services relating to the manufacture or servicing of automotive, marine, rail, aerospace or other vehicles.

"Business Day" means any day that is not a Saturday, a Sunday or other day on which the Federal Reserve Bank of New York is closed.

"Code" means the United States Internal Revenue Code of 1986, as amended.

"Company Credit Facility" means that certain Credit Agreement, dated as of October 1, 2018, among the Company, as borrower, JPMorgan Chase Bank, N.A., as administrative agent, and the lenders party thereto, as such agreement may be amended, restated, amended and restated, supplemented, waived or otherwise modified from time to time.

"Company Equity Plans" means the Company's 2006 Long-Term Incentive Plan, as amended and restated on November 5, 2020 and the Company's 2021 Long-Term Incentive Plan, effective as of May 14, 2021.

"Company Fundamental Reps" means Section 3.1 (*Organization and Corporate Power*); Sections 3.2(a)-(b) (*Capitalization*); Section 3.3 (*Authority; Execution and Delivery; Enforceability*) and Section 3.21 (*Broker's Fees*).

"Company Intellectual Property" means all Intellectual Property owned by the Company or any of its Subsidiaries.

"Company Joint Venture" means any corporation, partnership, limited liability company, limited liability partnership, joint venture, or other legal entity which is not a Subsidiary of the Company but of which the Company or any of its Subsidiaries (either alone and/or through and/or together with the Company and any of its Subsidiaries) owns any shares of capital stock or other equity interests.

"Company Material Adverse Effect" means any change, effect, event, occurrence, state of facts or development that, individually or in the aggregate, (a) would or would reasonably be expected to prevent or materially delay, interfere with, impair or hinder the consummation by the Company of the Merger or the Transactions or the compliance by the Company with its obligations under this Agreement or (b) has or would reasonably be expected to have a material adverse effect on the business, results of operations, assets or condition (financial or otherwise) of the Company and its Subsidiaries, taken as a whole; provided,

however, that none of the following shall be deemed, either alone or in combination, to constitute, and none of the following shall be taken into account in determining whether there has been or would reasonably be expected to be, a Company Material Adverse Effect: any change, effect, event, occurrence, state of facts or development attributable to (i) the announcement of the transactions contemplated by this Agreement (provided that this clause (i) shall not apply to any representation or warranty to the extent the purpose of such representation or warranty is to address, as applicable, the consequences resulting from the execution and delivery of this Agreement, the pendency or consummation of this Agreement and the transactions contemplated hereby); (ii) conditions generally affecting the industries in which the Company and its Subsidiaries participate, the economy as a whole or the capital markets in general or the markets in which the Company and its Subsidiaries operate; (iii) the taking of any action to the extent expressly required by this Agreement (but excluding the first paragraph of Section 5.1 of this Agreement); (iv) any change after the date hereof in applicable Laws or the interpretation thereof by Governmental Entities; (v) any change after the date hereof in GAAP; (vi) the commencement, continuation or escalation of a war, material armed hostilities or other material international or national calamity or act of terrorism; (vii) volcanoes, tsunamis, pandemics or disease outbreaks (including COVID-19 or any COVID-19 Measures), earthquakes, hurricanes, tornados or other natural disasters; (viii) any failure to meet any internal or public projections, forecasts, guidance, estimates, milestones, budgets or internal or published financial or operating predictions of revenue, earnings, cash flow or cash position (it being understood that the exception in this clause (viii) shall not prevent or otherwise affect a determination that the underlying cause of any such change, decline or failure referred to therein (to the extent not otherwise falling within any of the exceptions provided herein) is, may be, contributed to or may contribute to, a Company Material Adverse Effect) or (ix) changes after the date hereof in the trading price or trading volume of Shares or any suspension of trading, or any changes in the ratings or the ratings outlook for the Company by any applicable rating agency or changes in any analyst's recommendations or ratings with respect to the Company (provided that the underlying cause of such failure may be taken into account in determining whether a Company Material Adverse Effect has occurred); provided further, that any change, effect, event, occurrence, state of facts or development referred to in clauses (ii), (iv), (v), (vi) or (vii) may be taken into account in determining whether there has been, or would reasonably be expected to be, a Company Material Adverse Effect to the extent such effect, change, event or occurrence has a disproportionate adverse effect on the Company and its Subsidiaries, taken as a whole, as compared to other participants in the industry or jurisdiction in which the Company and its Subsidiaries operate (in which case only such incremental disproportionate adverse effect may be taken into account in determining whether there has been, or would reasonably be expected to be, a Company Material Adverse Effect).

"Company Owned Real Property Leases" means all leases, licenses or other agreements (written or oral) pursuant to which the Company or any of its Subsidiaries conveys or grants to any Person a leasehold estate in, or the right to use or occupy, any Company Owned Real Property or material portion thereof, including the right to all security deposits and other amounts and instruments deposited with or on behalf of the Company or any of its Subsidiaries thereunder.

"Company PSU" means any performance share unit issued under the Company Equity Plans, whether settled in shares or cash.

"Company RSU" means any restricted stock unit issued under the Company Equity Plans, whether settled in shares or cash.

"Company Termination Fee" means an amount equal to $54,000,000.

"Compliant" means, with respect to the Required Financial Information, that (i) such Required Financial Information does not contain any untrue statement of a material fact regarding the Company and its Subsidiaries or omit to state any material fact regarding the Company and its Subsidiaries necessary in order to make such Required Financial Information not misleading under the circumstances, in each case, giving effect to all supplements and updates delivered with respect thereto, (ii) such Required Financial Information complies in all material respects with all requirements of Regulation S-K and Regulation S-X under the 1933 Act for a registered public offering of non-convertible debt securities on Form S-1 that would be applicable to such Required Financial Information (other than such provisions for which compliance is not customary in a Rule 144A offering of non-convertible high yield debt securities), and (iii) the financial statements and other financial information included in such Required Financial Information would not be deemed stale (it being understood that the Company may provide updates to the Required Financial Information during the Marketing Period and such updates will be taken into account in determining whether the Required Financial Information would be deemed stale) or otherwise be unusable under customary practices for offerings and private placements of high yield debt securities under Rule 144A promulgated under the 1933 Act and are sufficient to permit the Company's independent accountants to issue a customary "comfort" letter to the Debt Financing Sources to the extent required as part of the Debt Financing, including as to customary negative assurances and customary change period comfort, in order to consummate any offering of debt securities on any day during the Marketing Period (and such accountants have confirmed they are prepared to issue a comfort letter subject to their completion of customary procedures).

"Confidential Information" means Evaluation Material (as such term is defined in the Confidentiality Agreement).

"Contract" means any written or oral legally binding contract, agreement, subcontract, lease, note, bond, mortgage, indenture, instrument, license, sublicense and purchase orders or other commitment.

"COVID-19" means SARS-CoV-2 or COVID-19 and any evolutions or mutations thereof or related or associated epidemics, pandemics, or disease outbreaks, or any escalation or worsening of any of the foregoing (including subsequent waves).

"COVID-19 Measures" means any public health, quarantine, "shelter in place," "stay at home," social distancing, shut down, furlough, closure, sequester, safety or similar law, requirement, directive or mandate promulgated by any Governmental Entity, in each case in connection with or in response to COVID-19.

"Data Security Requirements" means, collectively, all of the following to the extent relating to data treatment or otherwise relating to privacy, security, or security breach notification requirements and applicable to the Company and its Subsidiaries, to the conduct of

their business, or to any of the Systems or any Sensitive Data: (i) the Company's and its Subsidiaries' own rules, policies, and procedures; (ii) all applicable Laws; (iii) industry standards applicable to the industry in which the Company and its Subsidiaries operate (including, if applicable, the Payment Card Industry Data Security Standard (PCI DSS)); and (iv) Contracts and other arrangements to which the Company and its Subsidiaries have entered or by which they are otherwise bound.

"Debt Financing Sources" means the financial institutions identified in the Debt Financing Commitment Letters, together with each other Person that commits to provide or otherwise provides the Debt Financing, whether by joinder to the Debt Financing Commitment Letters or otherwise.

"Employee Compensation Budget" shall mean actions taken by the Company with respect to compensation and benefits of the applicable employee population that are contemplated in the Company's annual operating budget, (i) as approved by the Board of Directors of the Company at the beginning of the applicable fiscal year and (ii) as previously disclosed to Parent.

"Environmental Law" means all applicable Laws that regulate pollution, protection of the environment or natural resources, public or worker health or safety (as relating to exposure to or management of Hazardous Substances), or the production, distribution, use, storage, treatment, transportation, recycling, Release or other handling of, or exposure to, Hazardous Substances.

"Equity Interest" means any share, capital stock, partnership, limited liability company, member or similar equity interest in any Person, and any option, warrant, right or security (including debt securities) convertible, exchangeable or exercisable into or for any such share, capital stock, partnership, limited liability company, member or similar equity interest.

"ERISA" means the Employee Retirement Income Security Act of 1974, as amended, and the rules and regulations promulgated thereunder.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Excluded Information" means (i) any description of post-Closing capital structure, including descriptions of indebtedness or equity of Parent or any of its affiliates (including the Company and its Subsidiaries on or after the Closing Date), (ii) any description of the Debt Financing (including any such descriptions to be included in liquidity and capital resources disclosure and any "description of notes") or any information customarily provided by a lead arranger, underwriter or initial purchaser in a customary information memorandum or offering memorandum for a secured bank financing or high yield debt securities, as applicable, including sections customarily drafted by a lead arranger or an initial purchaser or underwriter, such as those regarding confidentiality, timelines, syndication process, limitations of liability and plan of distribution, (iii) any information regarding any post-Closing or pro forma cost savings, synergies or other pro forma adjustments or any pro forma or projected information, (iv) risk factors relating to all or any component of the Debt Financing, (v) financial statements or

information required by Rule 3-09, 3-10 or 3-16 of Regulation S-X, information regarding executive compensation and related party disclosure rules related to SEC Release Nos. 33-8732A, 34-54302A and IC-27444A or other information required by Item 402 of Regulation S-K, (vi) "segment" financial information, (vii) Item 601 of Regulation S-K and XBRL exhibits and (viii) other information customarily excluded from an offering memorandum for private placements of non-convertible high-yield debt securities under Rule 144A promulgated under the Securities Act.

"Ex-Im Laws" means all U.S. and non-U.S. Laws relating to export, re-export, transfer, and import controls, including the Export Administration Regulations, the customs and import Laws administered by U.S. Customs and Border Protection, and the EU Dual Use Regulation.

"FCC" means Federal Communications Commission.

"Fraud" means actual common law fraud (as opposed to any fraud claim based on constructive knowledge, negligent or reckless misrepresentation or a similar theory) under Delaware law.

"GAAP" means generally accepted accounting principles, as applied in the United States.

"Government Official" means (i) any officer or employee of a Governmental Entity or any department, agency or instrumentality thereof, including state-owned entities, or of a public organization or any Person acting in an official capacity for or on behalf of any such government, department, agency, or instrumentality or on behalf of any such public organization, or (ii) any relative of a Person described in clause (i).

"Governmental Entity" means any government, any agency, bureau, board, commission, court, department, official, political subdivision, tribunal or other instrumentality of any government (including any Automotive Authority), whether foreign, federal, state or local, any self-regulatory organization (including any securities exchange), or any arbitrational tribunal.

"Hazardous Substances" means any pollutant or contaminant or any material, substance or waste defined or regulated as hazardous or toxic (or for which liability or standards of conduct may be imposed due to its dangerous or deleterious properties or characteristics) under Environmental Laws, including asbestos or asbestos-containing materials, pesticides, petroleum, petroleum products or byproducts, polychlorinated biphenyls, lead, mold, radiation, noise and odor.

"HSR Act" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, and the rules and regulations thereunder.

"Indentures" means, collectively, the Secured Notes Indentures and the Unsecured Notes Indenture.

"India MTO" means the mandatory tender offer to be made by Parent to the public shareholders of Federal Mogul Goetze (India) Ltd. pursuant to Regulation 5(1) of the Takeover Regulations.

"Inquiry" means an inquiry, request for discussions or negotiations or request to review non-public information that would reasonably be expected to indicate an interest in making or effecting an Acquisition Proposal.

"Insurance Policies" means all insurance policies and arrangements held by or for the benefit of the Company, any of its Subsidiaries, or the business, assets or properties owned, leased or operated by the Company or any of its Subsidiaries, as the case may be.

"Intellectual Property" means any and all intellectual property rights (whether statutory or under common law) in any jurisdiction throughout the world, arising under or associated with: (i) registered and unregistered trademarks and service marks, trade dress and trade names, corporate names, Internet domain names, social media identifications, logos, slogans, trade dress, design rights, and other similar designations of source or origin, (ii) patents, registered designs and similar or equivalent rights in inventions, (iii) copyrights, copyrightable works (and any other equivalent rights in works of authorship including software as a work of authorship), mask works and industrial designs, (iv) trade secrets and industrial secrets and any other intellectual property rights in proprietary, confidential or technical information, databases, data collections, algorithms, formulae, processes, techniques, technical data, and know-how, (v) all registrations, and applications for the registration or issuance of any of the foregoing, and (vi) any other similar or equivalent intellectual property rights anywhere in the world.

"IRS" means the United States Internal Revenue Service.

"Knowledge" means (a) when used with respect to the Company, the actual knowledge of the individuals listed in Section 8.1(a) of the Company Disclosure Schedule; and (b) when used with respect to Parent or Merger Sub, the actual knowledge of the officers and directors of Parent and Merger Sub.

"Landlord Leases" means the Leased Real Property Subleases and the Company Owned Real Property Leases.

"Law" means any law, statute, constitution, ordinance, rule, regulation, stock exchange listing requirement, treaty, regulation, decree, or other Order issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Entity, including common law and any Automotive Law.

"Leased Real Property Leases" means all leases, subleases, licenses, concessions and other agreements (written or oral) pursuant to which the Company or any of its Subsidiaries has rights to any Company Leased Real Property.

"Leased Real Property Subleases" means all subleases, licenses or other agreements pursuant to which the Company or any of its Subsidiaries conveys or grants to any Person a subleasehold estate in, or the right to use or occupy, any Company Leased Real Property or material portion thereof.

"Liabilities" shall mean any and all debts, liabilities and obligations, whether fixed, contingent or absolute, matured or unmatured, accrued or not accrued, determined or determinable, secured or unsecured, disputed or undisputed, subordinated or unsubordinated, or otherwise.

"Lien" means with respect to any property, equity interest or asset, any mortgage, deed of trust, hypothecation, lien, encumbrance, pledge, charge, security interest, right of first refusal, right of first offer, adverse claim, restriction on transfer, covenant or option in respect of such property, equity interest or asset.

"Marketing Period" means the first period of seventeen (17) consecutive calendar days after the date of this Agreement (i) throughout and at the end of which Parent shall have the Required Financial Information and the Required Financial Information shall be Compliant, (ii) throughout and at the end of which the conditions set forth in Article 6 shall be satisfied (other than those conditions that by their nature are to be satisfied at the Closing, but subject to the fulfillment or waiver of those conditions at the Closing) and (iii) nothing shall have occurred and no condition shall exist that would cause any of such conditions to fail to be satisfied assuming the Closing were to be scheduled for any time during such seventeen (17) consecutive calendar day period; provided, that (x) May 30, 2022, July 4, 2022, July 5, 2022, November 24, 2022 and November 25, 2022 shall not constitute days for purposes of such seventeen (17) consecutive calendar day period (provided, however, that such exclusion shall not restart such period); (y) if such seventeen (17) consecutive calendar day period has not ended on or prior to August 19, 2022, such seventeen (17) consecutive calendar day period shall commence no earlier than September 6, 2022; and (z) if such seventeen (17) consecutive calendar day period has not ended on or prior to December 16, 2022, such seventeen (17) consecutive calendar day period shall commence no earlier than January 3, 2023; provided, further, that (x) the Marketing Period shall end on any earlier date prior to the expiration of the seventeen (17) consecutive calendar day period described above if the Debt Financing is closed on such earlier date (including closing into escrow) and (y) the Marketing Period shall not be deemed to have commenced if, after the date of this Agreement and prior to the completion of such seventeen (17) consecutive calendar day period: (A) the Company has publicly announced its intention to, or determines that it must, restate any historical financial statements or other financial information included in or that includes the Required Financial Information or any such restatement is under active consideration, in which case, the Marketing Period shall not commence or be deemed to commence unless and until such restatement has been completed and the applicable Required Financial Information has been amended and updated or the Company has publicly announced or informed Parent that it has concluded that no restatement shall be required in accordance with GAAP, (B) the Company's independent accountants shall have withdrawn their audit opinion with respect to any audited financial statements contained in or that includes the Required Financial Information, in which case the Marketing Period shall not commence or be deemed to commence unless and until a new unqualified audit opinion is issued with respect to such audited financial statements (or portion thereof) for the applicable periods by the independent accountants of the Company or another independent public accounting firm of national standing reasonably acceptable to Parent (and any "big four" accounting firm will be deemed acceptable), (C) any Required Financial Information would not be Compliant at any time during such seventeen (17) consecutive calendar day period or otherwise ceases to meet the requirement of "Required Financial Information", in which case the Marketing Period shall not commence or be

deemed to commence unless and until such Required Financial Information is updated or supplemented so that it is Compliant and meets the requirement of "Required Financial Information" (it being understood that if any Required Financial Information provided at the commencement of the Marketing Period ceases to be Compliant during such seventeen (17) consecutive calendar day period, then the Marketing Period shall be deemed not to have commenced), or (D) the Company shall have failed to file any Report on Form 10-K, Form 10-Q or Form 8-K required to be filed with the SEC pursuant to the Exchange Act in accordance with the periods required by the Exchange Act, in which case (1) in the case of failure to file a Form 10-K or Form 10-Q, the Marketing Period shall not commence or be deemed to commence unless and until such reports have been filed and (2) in the case of failure to file a Form 8-K, the Marketing Period shall toll until such report has been filed; provided, that if the failure to file such report occurs during the final five days of the Marketing Period, the Marketing Period will be extended so that the final day of the Marketing Period shall be no earlier than the fifth Business Day after such report has been filed. If at any time the Company shall in good faith believe that it has provided the Required Financial Information, it may deliver to Parent a written notice to that effect (stating when it believes it completed such delivery), in which case, the requirement in the foregoing clause (i) to deliver the Required Financial Information will be deemed to have been satisfied as of the date of delivery of such notice, unless Parent in good faith reasonably believes the Company has not completed the delivery of the Required Financial Information on such date and, within three (3) Business Days after the date of delivery of such notice, delivers a written notice to the Company to that effect (stating with specificity which Required Financial Information the Company has not delivered) and, following delivery of such Required Financial Information specified in such notice, the Marketing Period will commence so long as all other conditions and requirements for the Marketing Period to commence are satisfied; provided, that such written notice from Parent to the Company will not prejudice the Company's right to assert that the Required Financial Information was, in fact, delivered and is Compliant.

"NYSE" means The New York Stock Exchange.

"Offering Documents" means prospectuses, private placement memoranda, offering memoranda, information memoranda and packages and lender and investor presentations, in each case, to the extent the same are customary or required under the terms of the Debt Financing Commitment Letter, in connection with the Debt Financing.

"Order" means any judgment, ruling, order, decision, writ, injunction, determination, ruling or decree of any Governmental Entity.

"Outside Date" means December 31, 2022; provided, that, in the event that the Marketing Period has commenced but has not been completed as of the date that is four (4) Business Days prior to the Outside Date, the Outside Date shall automatically be extended to the date that is four (4) Business Days following the final day of the Marketing Period and the Outside Date shall be deemed for all purposes hereof to be such later date.

"Parent and Merger Sub Fundamental Reps" means Section 4.1 (*Corporate Organization*), Section 4.2 (*Authority, Execution and Delivery; Enforceability*) and Section 4.11 (*Brokers*).

"Parent Material Adverse Effect" means any change, event, development, condition, occurrence or effect that would have a material adverse effect on Parent's or Merger Sub's ability to timely consummate the Merger.

"Permits" means any license, permit, consent, qualification, franchise, registration, certificate or other similar authorization issued by, or otherwise granted by, any Governmental Entity under applicable Law.

"Permitted Action" means any such commercially reasonable action or inaction, whether or not in the ordinary course of business, that the Company reasonably believes is necessary or prudent for the Company or any of its Subsidiaries to take or abstain from taking, in order to carry on and preserve or protect their respective businesses, assets or properties or to protect the health or safety of natural Persons employed by the Company or any of its Subsidiaries, in each case, solely in connection with COVID-19 or the COVID-19 Measures.

"Permitted Liens" means (i) statutory Liens for current Taxes or other governmental charges not yet due and payable or the amount or validity of which is being contested in good faith by appropriate proceedings by the Company or its Subsidiaries and for which adequate reserves have been established in the Company SEC Financial Statements in accordance with GAAP; (ii) mechanics', carriers', workers', repairers' and similar statutory Liens arising or incurred in the ordinary course of business for amounts which are not delinquent, are being contested in good faith, or are not, individually or in the aggregate, material; (iii) municipal Laws, development agreements, restrictions or regulations, and zoning, entitlement, land use, building or planning restrictions or regulations, in each case, promulgated by any Governmental Entity, which do not materially impair the occupancy or use of the Company Leased Real Property and the Company Owned Real Property for the purposes for which it is currently used; (iv) Liens not securing indebtedness, covenants, conditions, restrictions, easements and other matters encumbering or otherwise affecting the Company Leased Real Property or the Company Owned Real Property, which do not materially impair the occupancy or use of the Company Leased Real Property and the Company Owned Real Property for the purposes for which it is currently used or proposed to be used; (v) Liens on goods in transit incurred pursuant to documentary letters of credit; (vi) Liens securing rental payments under capital lease arrangements; (vii) Liens in favor of customs and revenue authorities arising as a matter of Law and in the ordinary course of business to secure payment of customs duties in connection with the importation of goods; (viii) Liens resulting from securities Laws; (ix) Liens incurred in the ordinary course of business in connection with any purchase money security interests, equipment leases or similar ordinary course financing arrangements that are not overdue; (x) matters that would be disclosed by an accurate survey or a visual inspection of the Company Leased Real Property and the Company Owned Real Property; (xi) Liens securing the Secured Notes or the Company's existing credit facilities (including its revolving credit facility) as of the date of this Agreement; and (xii) Liens set forth on Section 8.1(b) of the Company Disclosure Schedule.

"Person" means an individual, a partnership, a corporation, a limited liability company, an association, a joint stock company, a trust, a joint venture, an unincorporated organization or a Governmental Entity.

"Proceeding" means any civil, criminal or administrative action, claim, suit, petition, proceeding (including arbitration proceeding), charge, complaint, subpoena, demand, audit, notice of inquiry, liability, noncompliance or violation, investigation or proceeding by or before any Governmental Entity or other Person.

"Release" means disposing, discharging, injecting, spilling, leaking, pumping, pouring, leaching, dumping, emitting, escaping or emptying into or upon the indoor or outdoor environment, including any soil, sediment, subsurface strata, surface water, groundwater, ambient air, the atmosphere or any other media.

"Representative" means, with respect to any Person, any affiliate, director, officer, manager, partner or employee of such Person, or any financial advisor, accountant, legal counsel, consultant, debt financing source or other authorized agent or representative retained by such Person.

"Required Financial Information" means (i) all financial statements, financial data, audit reports and other information regarding the Company and its Subsidiaries of the type and form that would be required by Regulation S-X promulgated by the SEC and Regulation S-K promulgated by the SEC for a registered public offering of debt securities on a registration statement on Form S-1 under the 1933 Act in order for the Company to consummate the offerings of high-yield debt securities contemplated by the Debt Financing Commitment Letter (including all audited financial statements and all unaudited quarterly interim financial statements, in each case prepared in accordance with GAAP applied on a consistent basis for the periods covered thereby, including applicable comparison period, which, in the case of unaudited quarterly interim financial statements (other than the fourth quarter), will have been reviewed by the Company's independent public accountants as provided in Statement on Auditing Standards 100); and (ii) such other pertinent and customary information regarding the Company and its Subsidiaries as may be reasonably requested by Parent (or the Debt Financing Sources) to the extent that such information is (A) required in connection with the Debt Financing or of the type and form customarily included in (I) marketing documents used to syndicate credit facilities of the type contemplated by the Debt Financing Commitment Letter or (II) an offering memorandum for private placements of non-convertible high-yield bonds pursuant to Rule 144A promulgated under the 1933 Act or (B) as otherwise necessary to receive from the Company's independent public accountants (and any other accountant to the extent that financial statements audited or reviewed by such accountants are or would be included in such offering memorandum) customary "comfort" (including negative assurance and customary change period comfort), together with drafts of customary comfort letters that such independent public accountants are prepared to deliver upon the "pricing" of any high-yield bonds being issued in connection with the Debt Financing, with respect to the financial information to be included in such offering memorandum. Notwithstanding anything to the contrary in this definition, nothing will require the Company to provide (or be deemed to require the Company to prepare) any Excluded Information.

"Reverse Termination Fee" means an amount equal to $108,000,000.

"Sanctioned Country" means any country or region that is, or has been in the last five years, the subject or target of a comprehensive embargo under Sanctions Laws (including Cuba, Iran, North Korea, Sudan, Syria, and the Crimea region of Ukraine).

"Sanctioned Person" means any Person that is the subject or target of sanctions or restrictions under Sanctions Laws or Ex-Im Laws, including: (i) any Person listed on any applicable U.S. or non-U.S. sanctions- or export-related restricted party list, including OFAC's Specially Designated Nationals and Blocked Persons List, the EU Consolidated List and HM Treasury's Consolidated List of Financial Sanctions Targets; (ii) any entity that is, in the aggregate, 50% or greater owned, directly or indirectly, or otherwise controlled by a Person or Persons described in clause (i); (iii) any Person acting on behalf or at the direction of any of the Persons mentioned in clauses (i) and (ii); or (iv) any national or Governmental Entity of a Sanctioned Country.

"Sanctions Laws" means all U.S. and non-U.S. Laws relating to economic or trade sanctions, including the Laws administered or enforced by the United States (including by OFAC), the United Nations Security Council, the European Union, the United Kingdom and all other applicable EU member states.

"SEC" means the U.S. Securities and Exchange Commission.

"Secured Notes" means, collectively, (i) the Company's 7.875% Senior Secured Notes due 2029 that as of the date of this Agreement are outstanding in the aggregate principal amount of $500 million and (ii) the Company's 5.125% Senior Secured Notes due 2029 that as of the date of this Agreement are outstanding in the aggregate principal amount of $800 million.

"Secured Notes Indentures" means, collectively, (i) that certain indenture, dated as of November 30, 2020, among the Company, as issuer, the subsidiary guarantors party thereto, and Wilmington Trust, National Association, as trustee, pursuant to which the Company's 7.875% Senior Secured Notes due 2029 were issued and (ii) that certain indenture, dated as of March 17, 2021, among the Company, as issuer, the subsidiary guarantors party thereto, and Wilmington Trust, National Association, as trustee, pursuant to which the Company's 5.125% Senior Secured Notes due 2029 were issued.

"Securities Act" means the Securities Act of 1933, as amended.

"Senior Notes" means, collectively, the Secured Notes and the Unsecured Notes.

"Sensitive Data" means personally identifying information and data (whether of employees, contractors, consultants, customers, consumers, or other Persons and whether in electronic or any other form or medium) that is accessed, collected, used, processed, stored, shared, distributed, transferred, disclosed, destroyed, or disposed of by or on behalf of the Company, any of its Subsidiaries or any of the Systems.

"Subsidiary" means, with respect to any Person, any corporation of which a majority of the total voting power of shares of stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by such Person or one or more of the other

Subsidiaries of such Person or a combination thereof, or any partnership, limited liability company, association or other business entity of which a majority of the partnership or other similar ownership interest is at the time owned or controlled, directly or indirectly, by such Person or one or more Subsidiaries of such Person or a combination thereof. For purposes of this definition, a Person is deemed to have a majority ownership interest in a partnership, limited liability company, association or other business entity if such Person is allocated a majority of the gains or losses of such partnership, association or other business entity or is or controls (or is entitled to control, by virtue of such Person's ownership of voting interests, by contract, or otherwise) the board, managing director, general partner or similar governing body of such partnership, association or other business entity.

"Superior Proposal" means any *bona fide*, written Acquisition Proposal made after the date of this Agreement (except that the references in the definition thereof to 25% shall be replaced with 80%), other than this Agreement and the transactions contemplated by this Agreement, on terms that the Company Board determines in good faith, after consultation with the Company's outside financial advisors and outside legal counsel, taking into account the timing, likelihood of consummation, legal, financial, tax, regulatory and other aspects of such proposal or offer and the person making such proposal or offer, including the financing terms thereof and any break-up fees or reimbursement provisions, and such other factors as the Company Board considers to be appropriate, to be (a) more favorable to the Company or the Company's stockholders, including from a financial point of view, than the transactions contemplated by this Agreement (taking into account any revisions pursuant to Section 5.3(d)) and (b) reasonably capable of being completed on the terms proposed.

"Takeover Regulations" means the Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011.

"Tax Return" means any report, return (including information return), claim for refund, estimated filing or declaration required to be filed or actually filed with a Governmental Entity in connection with the determination, assessment or collection of any Tax, including any schedule or attachment thereto, and including any amendments thereof.

"Taxes" means all taxes, fees, levies, duties, tariffs, imposts and other charges in the nature of a tax imposed by any Governmental Entity, including, without limitation, income, franchise, windfall or other profits, gross receipts, real property, personal property, sales, use, goods and services, net worth, capital stock, business license, occupation, commercial activity, customs duties, alternative or add-on minimum, environmental, payroll, employment, social security, workers' compensation, unemployment compensation, excise, estimated, withholding, ad valorem, stamp, transfer, registration, value-added and gains tax, and any interest, penalties, or additional amounts imposed in respect of any of the foregoing.

"Third Party" shall mean any Person other than Parent, Merger Sub and their respective affiliates.

"Transaction Documents" means this Agreement, together with the exhibits hereto, the Company Disclosure Schedule, the Parent Disclosure Schedule, the Equity Commitment Letter, the Guaranty and the Confidentiality Agreement.

"Treasury Regulations" means the final and temporary regulations promulgated under the Code by the U.S. Department of Treasury.

"Unsecured Notes Indenture" means the Indenture, dated as of December 5, 2014, among the Company, as issuer, the subsidiary guarantors party thereto, and U.S. Bank National Association, as trustee (the "Unsecured Notes Trustee"), as amended and supplemented by (i) the First Supplemental Indenture, dated as of December 5, 2014, among the Company, as issuer, the subsidiary guarantors party thereto and the Unsecured Notes Trustee, pursuant to which the Company's 5⅜% Senior Notes due 2024 were issued and (ii) the Second Supplemental Indenture, dated as of June 16, 2016, among the Company, as issuer, the subsidiary guarantors party thereto and the Unsecured Notes Trustee, pursuant to which the Company's 5.00% Senior Notes due 2026 (the "Unsecured Notes") were issued and as further amended and supplemented as of the date hereof.

"Willful and Material Breach" means (i) with respect to any material breach of a representation and warranty, that the breaching party had Knowledge of such breach as of the date of this Agreement and (ii) with respect to any material breach of a covenant or other agreement, that is a consequence of an act or failure to act undertaken by the breaching party with actual knowledge that such party's action or failure to act would result in or constitute a material breach of this Agreement.

8.2Terms Defined Elsewhere. The following terms are defined elsewhere in this Agreement, as indicated below:

Term	Sectior
2022 Bonus Plan	5.8(c)
Affiliate Contract	3.2
Agreement	Preamble
Alternative Acquisition Agreement	5.3(a)
Applicable Courts	9.15(b)
Book-Entry Shares	2.2(b)(ii)
Cash-Settled PSU	2.4(a)
Cash-Settled RSU	2.4(b)
Certificate of Merger	1.2
Certificates	2.2(b)(i)
Class B Common Stock	3.2(a)
Closing	1.2
Closing Date	1.2
Closing Legal Impediment	6.1(b)
Collective Labor Agreement	3.12(a)
Commitment Letters	4.5(a)
Company	Preamble
Company Awards	2.4(c)
Company Benefit Plan	3.11(a)
Company Board	Recitals
Company Board Recommendation	3.3(b)
Company Board Recommendation Change	5.3(c)

Company Bylaws	3.1
Company Charter	3.1
Company Disclosure Schedule	Article 3
Company Leased Real Property	3.14(b)
Company Material Contracts	3.16(b)
Company Meeting	5.4(a)(i)
Company Owned Real Property	3.14(a)
Company Preferred Stock	3.2(a)
Company Real Property	3.14(c)
Company Registered IP	3.19(a)
Company Related Parties	7.2(e)
Company SEC Documents	3.5(a)
Company SEC Financial Statements	3.5(c)
Company Stockholder Approval	3.3(c)
Confidentiality Agreement	5.2(b)
Continuation Period	5.8(a)
Continuing Employee	5.8(a)
D&O Insurance	5.9(c)
Debt Financing	4.5(a)
Debt Financing Commitment Letter	4.5(a)
Debt Offer	5.16(b)
DGCL	Recitals
Disclosure Schedule	Article 4
Dissenting Shares	2.3
Effective Time	1.2
Equity Commitment Letter	4.5(a)
Equity Financing	4.5(a)
Event Notice Period	5.3(d)(i)(1)
FDI Approval	5.7(a)
Financing	4.5(a)
Financing Action	5.6(a)
Financing Purposes	4.5(a)
Financing Source Related Parties	7.2(g)
Guarantors	Recitals
Guaranty	Recitals
Indemnitee	5.9(a)
Indemnitees	5.9(a)
Intervening Event	5.3(d)(i)
Merger	Recitals
Merger Consideration	2.1(a)
Merger Sub	Preamble
Parent	Preamble
Parent Disclosure Schedule	Article 4
Parent Related Parties	7.2(e)
Parent Subsidiaries	4.3(a)
Parent Subsidiary	4.3(a)

Payee	2.5
Paying Agent	2.2(a)
Payoff Letters	5.16(g)
Payor	2.5
Proposal Notice Period	5.3(d)(ii)(2)
Proxy Statement	5.4(a)(ii)
Replacement Debt Financing	5.6(d)
Sarbanes-Oxley Act	3.5(a)
Share	Recitals
Shares	Recitals
Share-Settled PSUs	2.4(c)
Share-Settled RSUs	2.4(c)
Solvent	4.8
Surviving Corporation	1.1(a)
Systems	3.19(e)
Tax Sharing Agreement	3.15(f)
Termination Fee Collection Costs	7.2(d)
Trade Control Laws	3.17(a)
Transactions	1.1(a)
Trustee	5.16(c)
Unsecured Notes	Definition of Unsecured Notes Indenture
Unsecured Notes Trustee	Definition of Unsecured Notes Indenture

ARTICLE 9
GENERAL PROVISIONS

9.1 Fees and Expenses. Except as otherwise expressly provided herein (including in Section 2.2(a) (*Paying Agent*), Section 5.2 (*Access to Information, Employees and Facilities; Confidentiality*), Section 5.5(b) (*Parent Financing Assistance*), Section 5.9 (*Indemnification*); Section 5.17 (*Transfer Taxes*) and Section 7.2(d) (*Termination Fee and Expenses*)), (a) the Company shall pay or cause to be paid all of its and its Subsidiaries' fees, costs and expenses (including fees, costs and expenses of legal counsel, investment bankers, brokers and other representatives and consultants), and (b) Parent and Merger Sub shall each pay or cause to be paid all of its fees, costs and expenses (including fees, costs and expenses of legal counsel, investment bankers, brokers and other representatives and consultants), in each case, incurred in connection with the negotiation of this Agreement, the performance of its obligations hereunder, and the consummation of the transactions contemplated hereby. The Company and Parent shall each pay for and be responsible for 50% of any and all filing fees incurred by the parties and payable to any Governmental Entity in connection with any such filings or other submissions with respect to Antitrust Laws.

9.2 Notices. All notices, demands and other communications to be given or delivered under or by reason of the provisions of this Agreement shall be in writing and shall be deemed to have been given (a) when personally delivered, (b) when transmitted via electronic mail to the applicable e-mail address set out below, in each case before 6:00 p.m., Central Time, on a Business Day (provided confirmation of transmission is mechanically or electronically generated and the sender has not received notice that such transmission was not received), (c) the

next Business Day following the day on which the same has been delivered prepaid to a reputable national overnight air courier service, or (d) the third (3rd) Business Day following the day on which the same is sent by certified or registered mail, postage prepaid. Notices, demands and communications, in each case to the respective parties hereto, shall be sent to the applicable address set forth below, unless another address has been previously specified in writing by the applicable party:

Notices to the Parent:

Pegasus Holdings III, LLC
c/o Apollo Management IX, L.P.
9 West 57th Street, 43rd Floor
New York, NY 10019
Attenti
on: James Elworth
Michael Reiss
Email: jelworth@apollo.com
mreiss@apollo.com

with a copy (which shall not constitute notice) to:

Wachtell, Lipton, Rosen & Katz
51 West 52nd Street
New York, NY 10019
/
ttention: Andrew J. Nussbaum
Karessa L. Cain
T
elephone (212)
No.: 403-1000
E
mail: AJNussbaum@wlrk.com
KLCain@wlrk.com

Notices to the Company:

Tenneco Inc.
500 North Field Drive
Lake Forest, Illinois 60045
/
ttention: Thomas J. Sabatino, Jr.
T
elephone
No.: (847) 482-5000
E
mail: tom.sabatino@tenneco.com

with a copy (which shall not constitute notice) to:

Latham & Watkins LLP
330 North Wabash Ave, Suite 2800
Chicago, Illinois 60611
Attenti
on: Mark D. Gerstein
Bradley C. Faris
Max N. Schleusener
Teleph
one No.: (312) 876-7700
Email: mark.gerstein@lw.com
brad.faris@lw.com
max.schleusener@lw.
com

9.3Assignment. This Agreement and all of the provisions hereof shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns, except that neither this Agreement nor any of the rights, interests or obligations hereunder may be assigned, in whole or in part (whether by operation of law or otherwise), or delegated by (a) Parent or Merger Sub, without the prior written consent of the Company; provided, that the Parent or Merger Sub may, without the consent of the Company, assign in whole or in part its rights, interests and obligations pursuant to this Agreement to (i) another wholly owned direct or indirect Subsidiary of Parent or (ii) any Debt Financing Source pursuant to the terms of the Debt Financing for purposes of creating a security interest herein or otherwise assigning as collateral in respect of the Debt Financing; provided further, that such assignment contemplated by the immediately preceding clause shall not relieve Parent or Merger Sub of any of their obligations hereunder, or (b) the Company, without the prior written consent of Parent.

9.4Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable Law, but if any provision of this Agreement is held to be prohibited by or invalid under applicable Law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement.

9.5References. Capitalized terms used herein shall have the respective meanings assigned thereto herein (such definitions to be equally applicable to both the singular and plural forms and to the masculine as well as to the feminine and neuter genders of the terms defined). A term defined as one part of speech (such as a noun) shall have a corresponding meaning when used as another part of speech (such as a verb). All terms defined in this Agreement shall have the defined meanings when used in any certificate or other document made or delivered pursuant hereto unless otherwise defined therein. The table of contents and the section and other headings and subheadings contained in this Agreement and the exhibits hereto (including in headings in any parentheticals following section references) are solely for the purpose of reference, are not part of the agreement of the parties hereto, and shall not in any way affect the meaning or interpretation of this Agreement or any exhibit hereto. As used in this Agreement, references to a "party" or the "parties" are intended to refer to a party to this Agreement of the parties to this Agreement. All references to days or months shall be deemed references to calendar days or months. All references to "$" shall be deemed references to United

States dollars. Unless the context otherwise requires, any reference to a "Section," "Exhibit," "Disclosure Schedule" or "Schedule" shall be deemed to refer to a section of this Agreement, exhibit to this Agreement or a schedule to this Agreement, as applicable. The words "hereof," "herein" and "hereunder" and words of similar import referring to this Agreement refer to this Agreement as a whole and not to any particular provision of this Agreement. English shall be the governing language of this Agreement. The word "including" shall mean "including, without limitation." "Shall" and "will" mean "must," and shall and will have equal force and effect and express an obligation. "Writing," "written" and comparable terms refer to printing, typing, and other means of reproducing in a visible form. The word "or" shall not be given its exclusive meaning. The words "made available to Parent" and words of similar import refer to documents (i) posted to the data room maintained by the Company or its Representatives in connection with the transactions contemplated by this Agreement, (ii) delivered in person or electronically to Parent, Merger Sub or any of their respective Representatives or (iii) that are publicly available in the Electronic Data Gathering, Analysis and Retrieval (EDGAR) database of the SEC, in each case, by 2:00 p.m. U.S. Eastern Standard Time on February 22, 2022. References herein to this Agreement mean this Agreement as from time to time amended, modified or supplemented, including by waiver or consent. Any agreement or instrument defined or referred to herein, or in any agreement or instrument that is referred to herein, means such agreement or instrument as from time to time amended, modified or supplemented, including by waiver or consent. Any reference to any particular Code section or any other Law will be interpreted to include any revision of or successor to that section regardless of how it is numbered or classified. All references to "wholly owned Subsidiaries" shall be deemed to include Persons with respect to whom the Company or its wholly owned Subsidiaries own in excess of ninety-eight percent (98%) of the outstanding voting equity securities and where the remainder is held by one or more parties for purposes of compliance with applicable Law.

9.6Construction.

(a)The language used in this Agreement shall be deemed to be the language chosen by the parties hereto to express their mutual intent, and no rule of strict construction shall be applied against any Person.

(b)The specification of any dollar amount or the inclusion of any item in the representations and warranties contained in this Agreement or the Disclosure Schedules or Exhibits attached hereto is not intended to imply that the amounts, or higher or lower amounts, or the items so included, or other items, are or are not required to be disclosed (including whether such amounts or items are required to be disclosed as material or threatened) or are within or outside of the ordinary course of business, and no party hereto shall use the fact of the setting of the amounts or the fact of the inclusion of any item in this Agreement or the Disclosure Schedules or Exhibits in any dispute or controversy between the parties as to whether any obligation, item or matter not described or included in this Agreement or in any Schedule or Exhibit is or is not required to be disclosed (including whether the amount or items are required to be disclosed as material or threatened) or is within or outside of the ordinary of business for purposes of this Agreement. The information contained in this Agreement and in the Disclosure Schedules and Exhibits hereto is disclosed solely for purposes of this Agreement, and no information contained herein or therein shall be deemed to be an admission by any party hereto

to any Third Party of any matter whatsoever (including any violation of Law or breach of contract).

9.7Amendment and Waiver. This Agreement may be amended, and any provision of this Agreement may be waived; provided, however, that, after receipt of the Company Stockholder Approval, no amendment may be made which, by Law or in accordance with the rules of any relevant stock exchange, requires further approval by the Company's stockholders without such approval; provided further, that any such amendment or waiver shall be binding upon the Company only if such amendment or waiver is set forth in a writing executed by the Company, and any such amendment or waiver shall be binding upon Parent or Merger Sub only if such amendment or waiver is set forth in a writing executed by Parent or Merger Sub, as applicable; provided further that no amendment, supplement or change may be made to, or whole or partial waiver may be made with respect to, Section 7.2 (*Termination Fees and Expenses*), Section 9.3 (*Assignments*), this Section 9.7 (*Amendment and Waiver*), Section 9.9 (*Third Party Beneficiaries*), Section 9.10 (*Waiver of Trial by Jury*), Section 9.14 (*Governing Law*), Section 9.15 (*Consent to Jurisdiction*) or Section 9.17 (*Non-Recourse*) that adversely impacts any Debt Financing Source without the prior written consent of such Debt Financing Source adversely impacted thereby. No waiver of any provision hereunder or any breach or default thereof shall extend to or affect in any way any other provision or prior or subsequent breach or default.

9.8Complete Agreement. This Agreement and the other agreements expressly referred to herein (including the Commitment Letters, the Guaranty and the Confidentiality Agreement) contain the complete agreement between the parties hereto and supersede any prior understandings, agreements or representations by or between the parties, written or oral, which may have related to the subject matter hereof in any way.

9.9Third Party Beneficiaries. Except as otherwise expressly provided herein, nothing expressed or referred to in this Agreement will be construed to give any Person other than the parties to this Agreement any legal or equitable right, remedy, or claim under or with respect to this Agreement or any provision of this Agreement, except that (a) the Company and its Subsidiaries shall be express third party beneficiaries of and have the right to enforce Sections 5.5(b)(ii), 5.5(c) and 5.16(f), (b) the Company Related Parties and the Parent Related Parties shall be express third party beneficiaries of and have the right to enforce Section 7.2(e) and Section 7.2(f), (c) the Financing Source Related Parties shall be express third party beneficiaries of and have the right to enforce Section 7.2(g), (d) the Debt Financing Sources shall be express third party beneficiaries of and have the right to enforce Section 7.2(g) (*Termination Fees and Expenses*), Section 9.3 (*Assignment*), Section 9.7 (*Amendment and Waiver*), this Section 9.9 (*Third Party Beneficiaries*), Section 9.10 (*Waiver of Trial by Jury*), Section 9.14 (*Governing Law*), Section 9.15 (*Consent to Jurisdiction*) or Section 9.17 (*Non-Recourse*) and Section 9.19 (*Survival*), and (e) following the Effective Time, the holders of Shares and Company Awards shall be express third party beneficiaries of, and have the right to enforce the right to receive the consideration set forth in, Article 2.

9.10Waiver of Trial by Jury. THE PARTIES HERETO WAIVE ANY RIGHT, TO THE FULLEST EXTENT PERMITTED BY LAW, TO A TRIAL BY JURY IN ANY ACTION, CLAIM OR PROCEEDING (I) ARISING UNDER THIS AGREEMENT, (II)

ARISING OUT OF THE TRANSACTIONS CONTEMPLATED HEREBY, REGARDLESS OF WHICH PARTY INITIATES SUCH ACTION OR PROCEEDING, OR (III) ARISING OUT OF OR RELATING TO THE FINANCING OR THE COMMITMENT LETTERS.

9.11 Specific Performance.

(a) The parties hereto each acknowledge and agree that the other parties hereto would be damaged irreparably in the event any provision of this Agreement is not performed in accordance with its specific terms or is otherwise breached, and that monetary damages, even if available, would not be an adequate remedy therefor. Accordingly, except as otherwise provided in this Section 9.11, each of the Company, Parent and Merger Sub agrees that the other parties hereto shall be entitled to an injunction or injunctions to prevent breaches of the provisions of this Agreement and to enforce specifically this Agreement and the terms and provisions hereof in any action instituted in any court in the United States or in any state having jurisdiction over the parties hereto and the matter, in addition to any other remedy to which they may be entitled pursuant hereto or at law or equity (and each party hereto hereby waives any requirement for the securing or posting of any bond in connection with such remedy). Each of the parties hereto further acknowledges and agrees that it shall not assert that a remedy of specific enforcement is unenforceable, invalid, contrary to applicable Law, or inequitable for any reason, nor to assert that a remedy of monetary damages would provide an adequate remedy for any such breach.

(b) Until such time as Parent pays and the Company accepts the Reverse Termination Fee, the remedies available to the Company pursuant to this Section 9.11 shall be in addition to any other remedy to which it is entitled at law or in equity in accordance with this Agreement, and the election to pursue an injunction or specific performance shall not restrict, impair or otherwise limit the Company from, in the alternative, seeking to terminate this Agreement and collect the Reverse Termination Fee under Section 7.2. For the avoidance of doubt, although the Company may pursue both a grant of specific performance to the extent permitted by this Section 9.11 and the payment of the Reverse Termination Fee, under no circumstances shall the Company, directly or indirectly, be permitted or entitled to receive (i) both a grant of specific performance to cause the Equity Financing to be funded (whether under this Agreement or the Equity Commitment Letter) or other equitable relief, on the one hand, and payment of any monetary damages whatsoever and/or the payment of the Reverse Termination Fee, on the other hand, or (ii) both payment of any monetary damages whatsoever, on the one hand, and payment of the Reverse Termination Fee, on the other hand.

(c) In furtherance of the foregoing, the parties hereto hereby further acknowledge and agree that prior to the Closing, the Company shall be entitled to specific performance (i) to enforce specifically the terms and provisions of, and to prevent or cure breaches of, this Agreement (including Section 5.6) by Parent and (ii) to cause Parent to draw down the full proceeds of the Financing and to cause Parent to consummate the Merger and the Transactions, including to effect the Closing in accordance with the terms and subject to the conditions in this Agreement, if, solely in the case of this clause (ii), (A) all conditions in Section 6.1 and Section 6.3 (other than those conditions that by their nature are to be satisfied at the Closing) have been satisfied or waived, (B) Parent fails to complete the Closing by the date the Closing is required to have occurred pursuant to Section 1.2, (C) the Debt Financing (or, if

applicable, the Replacement Debt Financing) has been funded or will be funded at the Closing if the Equity Financing is funded at the Closing (provided that Parent shall not be required to draw down the Equity Commitment Letter or consummate the Closing if the Debt Financing is not in fact funded at Closing) and (D) the Company has irrevocably confirmed to Parent in writing that if specific performance is granted and the Equity Financing and Debt Financing (or, if applicable, the Replacement Debt Financing) are funded, then the Company will take such actions required of it by this Agreement to cause the Closing to occur.

9.12Delivery. This Agreement and any signed agreement entered into in connection herewith or contemplated hereby, and any amendments hereto or thereto, to the extent signed and delivered by means of a facsimile machine or electronic mail, shall be treated in all manner and respects as an original contract and shall be considered to have the same binding legal effects as if it were the original signed version thereof delivered in person. At the request of any party hereto or to any such contract, each other party hereto or thereto shall re-execute original forms thereof and deliver them to all other parties. No party hereto or to any such contract shall raise the use of a facsimile machine or electronic mail to deliver a signature or the fact that any signature or contract was transmitted or communicated through the use of facsimile machine or in electronic or digital form as a defense to the formation of a contract and each such party forever waives any such defense.

9.13Counterparts. This Agreement may be executed in multiple counterparts, any one of which need not contain the signature of more than one party hereto, but all such counterparts taken together shall constitute one and the same instrument.

9.14Governing Law. This Agreement, together with all Proceedings, issues and questions concerning the construction, validity, interpretation and enforceability of this Agreement and the exhibits and schedules hereto (whether in contract or tort) that may be based upon, arise out of or relate to this Agreement or the negotiation, execution or performance of this Agreement (including any Proceeding or cause of action based upon, arising out of or related to any representation or warranty made in or in connection with this Agreement), or the transactions contemplated hereby, shall be governed by, and construed in accordance with, the Laws of the State of Delaware applicable to agreements executed and performed entirely within such State, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction), that would cause the application of the Laws of any jurisdiction other than the State of Delaware; provided, that, notwithstanding the foregoing, any disputes involving the Debt Financing Sources will be governed by and construed in accordance with the applicable Laws of the State of New York without giving regard to conflicts or choice of law principles that would result in the applicability of any Law other than the Law of the State of New York.

9.15Consent to Jurisdiction.

(a)THE PARTIES AGREE THAT JURISDICTION AND VENUE IN ANY SUIT, ACTION, OR PROCEEDING BROUGHT BY ANY PARTY IN CONNECTION WITH THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREBY, OR THE PERFORMANCE OF THE OBLIGATIONS IMPOSED HEREUNDER SHALL PROPERLY AND EXCLUSIVELY LIE IN THE COURT OF CHANCERY OF THE

STATE OF DELAWARE (OR, SOLELY TO THE EXTENT SUCH COURT DECLINES JURISDICTION OR DOES NOT HAVE SUBJECT MATTER JURISDICTION, ANY OTHER FEDERAL OR STATE COURT LOCATED IN THE STATE OF DELAWARE). EACH PARTY ALSO AGREES NOT TO BRING ANY SUIT, ACTION, OR PROCEEDING IN CONNECTION WITH THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREBY, OR THE PERFORMANCE OF THE OBLIGATIONS IMPOSED HEREUNDER IN ANY OTHER COURT. BY EXECUTION AND DELIVERY OF THIS AGREEMENT, EACH PARTY IRREVOCABLY SUBMITS TO THE JURISDICTION OF SUCH COURTS FOR ITSELF AND IN RESPECT OF ITS PROPERTY WITH RESPECT TO ANY SUCH SUIT, ACTION, OR PROCEEDING. THE PARTIES IRREVOCABLY AGREE THAT VENUE WOULD BE PROPER IN SUCH COURT, AND HEREBY WAIVE ANY OBJECTION THAT ANY SUCH COURT IS AN IMPROPER OR INCONVENIENT FORUM FOR THE RESOLUTION OF SUCH SUIT, ACTION, OR PROCEEDING. THE PARTIES FURTHER AGREE THAT THE MAILING BY CERTIFIED OR REGISTERED MAIL, RETURN RECEIPT REQUESTED, OF ANY PROCESS REQUIRED BY ANY SUCH COURT SHALL CONSTITUTE VALID AND LAWFUL SERVICE OF PROCESS AGAINST THEM, WITHOUT NECESSITY FOR SERVICE BY ANY OTHER MEANS PROVIDED BY STATUTE OR RULE OF COURT.

(b)NOTWITHSTANDING ANYTHING IN THIS SECTION 9.15 TO THE CONTRARY, THE PARTIES AGREE THAT WITH RESPECT TO ANY DISPUTE INVOLVING THE DEBT FINANCING OR DEBT FINANCING SOURCES, THE PARTIES SUBMIT TO THE EXCLUSIVE JURISDICTION OF THE COURTS OF THE STATE OF NEW YORK OR FEDERAL COURTS OF THE UNITED STATES OF AMERICA, IN EACH CASE, SITTING IN THE BOROUGH OF MANHATTAN, AND ANY APPELLATE COURT FROM ANY THEREOF (THE COURTS DESCRIBED IN THIS SECTION 9.15(b), THE "APPLICABLE COURTS"), AND AGREES THAT (I) ALL CLAIMS IN RESPECT OF ANY SUCH LITIGATION MAY BE HEARD AND DETERMINED ONLY IN AN APPLICABLE COURT, (II) WAIVES, TO THE FULLEST EXTENT IT MAY LEGALLY DO SO, ANY OBJECTION WHICH IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE OF ANY PROCEEDING IN ANY APPLICABLE COURT, (III) WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH PROCEEDING IN ANY APPLICABLE COURT, AND (IV) AGREES THAT A FINAL JUDGMENT IN ANY SUCH PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR ANY OTHER MANNER PROVIDED BY LAW.

9.16Payments under This Agreement. Each party agrees that all amounts required to be paid hereunder shall be paid in United States currency and, except as otherwise expressly set forth in this Agreement, without discount, rebate, reduction or withholding and not subject counterclaim or offset, on the dates required hereby (with time being of the essence).

9.17Non-Recourse. Notwithstanding anything herein to the contrary, any Proceeding (whether in Contract or in tort, in Law or in equity or otherwise, or granted by statute or otherwise, whether by or through attempted piercing of the corporate, limited partnership or limited liability company veil or any other theory or doctrine, including alter ego or otherwise) that is based upon, arising out of, or related to (i) this Agreement or any other Transaction

Document or the transactions contemplated hereby or thereby, (ii) the negotiation, execution, performance or non-performance of this Agreement or any other Transaction Document (including any representation or warranty made in, in connection with, or as an inducement to, this Agreement or any other Transaction Document), (iii) any breach or violation of this Agreement or any other Transaction Document or (iv) any failure of the transactions contemplated hereunder or under any Transaction Document (including the Financing) to be consummated may only be brought against, the Persons that are expressly named as parties hereto or thereto, as applicable (together with any assignee of a party hereto pursuant to Section 9.3 (*Assignment*) and, in accordance with the terms and conditions of the Guaranty, the Guarantors) and then only with respect to the specific obligations set forth herein with respect to such party. In no event shall any named party to the Transaction Documents have any shared or vicarious liability for the actions or omissions of any other Person. In furtherance and not in limitation of the foregoing, and notwithstanding anything contained in this Agreement, any other Transaction Document or any other document or certificate referenced herein or therein or otherwise to the contrary, each party hereto covenants, agrees and acknowledges, on behalf of itself and the Company Related Parties and Parent Related Parties, as applicable, that no recourse under this Agreement, any other Transaction Document or any other document or certificate referenced herein or therein or in connection with any transactions contemplated hereby or thereby (including the Financing) shall be sought or had against any other Person, including any Parent Related Party or Company Related Party, and no other Person, including any Parent Related Party or Company Related Party, shall have any liabilities or obligations (whether in Contract or in tort, in Law or in equity or otherwise, or granted by statute or otherwise, whether by or through attempted piercing of the corporate, limited partnership or limited liability company veil or any other theory or doctrine, including alter ego or otherwise) for any claims, causes of action, obligations or Liabilities arising under, out of, in connection with or related to the items in the immediately preceding clauses (i) through (iv), it being expressly agreed and acknowledged that no Liability or losses whatsoever shall attach to, be imposed on or otherwise be incurred by any of the aforementioned, as such, arising under, out of, in connection with or related to the items in the immediately preceding clauses (i) through (iv), in each case, except for claims that (1) the Company, Parent or Merger Sub, as applicable, may assert (subject, with respect to the following clauses (x) and (y), in all respects to the limitations set forth in Section 7.2, Section 7.3, Section 9.11 and this Section 9.17) (w) against any person that is party to, and solely pursuant to the terms and conditions of, the Confidentiality Agreement, (x) against each Guarantor, solely in accordance with, and pursuant to the terms and conditions of, the Guaranty, (y) against the equity financing sources under the Equity Commitment Letter for specific performance of the obligation of such equity financing sources to fund their respective commitments under the Equity Commitment Letter, solely in accordance with, and pursuant to the terms and conditions of, the Equity Commitment Letter, or (z) against the Company, Parent and Merger Sub solely in accordance with, and pursuant to the terms and conditions of, this Agreement, (2) Parent and its affiliates may assert against the Debt Financing Sources pursuant to the terms and conditions of the Debt Financing and (3) any Guarantor or equity financing source may assert pursuant to the terms and conditions of the Guaranty and the Equity Commitment Letter, as applicable. Notwithstanding anything to the contrary herein or otherwise, no Parent Related Party or Company Related Party shall be responsible or liable for any multiple, indirect, special, statutory, exemplary or punitive damages which may be alleged as a result of this Agreement, the other Transaction Documents or any other agreement referenced herein or

therein or the transactions contemplated hereunder or thereunder (including the Debt Financing), or the termination or abandonment of any of the foregoing (provided, for the avoidance of doubt, that nothing in this sentence shall limit any party's right to receive a fee pursuant to Section 7.2 hereof).

9.18Disclosure Schedules. The parties hereto agree that any reference in a particular Section of the Disclosure Schedule shall be deemed to be an exception to (or, as applicable, a disclosure for purposes of), the representations and warranties (or covenants, as applicable), of the relevant party that are contained in the corresponding Section of this Agreement and any other representations and warranties of such party that is contained in this Agreement to which the relevance of such item thereto is reasonably apparent on its face (other than any matters required to be disclosed for purposes of Section 3.2(a) (*Capitalization*), Section 5.1 (*Conduct of Business Pending the Closing*) or the first sentence of Section 3.6 (*Absences of Certain Changes or Events*), which matters shall only be disclosed by specific disclosure in the corresponding section of the Disclosure Schedules). Each party hereto has or may have set forth information in the Disclosure Schedules in a section thereof that corresponds to the Section of this Agreement to which it relates. The specification of any dollar amount contained in the representations or warranties in this Agreement, or the fact that any item of information is disclosed in the Disclosure Schedule shall not be construed to mean that such information is required to be disclosed by this Agreement. The mere inclusion of an item in the Disclosure Schedule as an exception to (or, as applicable, a disclosure for purposes of) a representation or warranty shall not be deemed an admission that (a) such item represents a material exception or material fact, event or circumstance or that such item has had or would reasonably be expected to have a Company Material Adverse Effect or Parent Material Adverse Effect, as applicable, or (b) such information (or any non-disclosed information of comparable or greater significance) is required to be disclosed by the terms of this Agreement or is material to the business, results of operations or financial condition of the Company, Parent or Merger Sub, as applicable. Capitalized terms used and not otherwise defined in the Disclosure Schedule shall have the meanings given to them in this Agreement.

9.19Survival. The representations, warranties, covenants and agreements of the parties hereto contained in this Agreement shall not survive the Closing except that this Section 9.19 shall not limit any covenant or agreement of the parties which by its terms contemplates performance after the Effective Time, which shall survive to the extent expressly provided for herein.

9.20Waiver of Conditions.

(a)The conditions to the obligations of each party hereto to consummate the transactions contemplated by this Agreement are for the sole benefit of each such party, and may be waived only by each such party in whole or in part to the extent permitted by applicable Laws.

(b)No failure or delay by any party hereto in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right,

power or privilege. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by applicable Law.

9.21 Obligations of Parent, Merger Sub and the Company. Whenever this Agreement requires a Subsidiary of Parent (including Merger Sub) to take any action, such requirement shall be deemed to include an undertaking on the part of Parent to cause such Subsidiary to take such action. Whenever this Agreement requires a Subsidiary of the Company to take any action, such requirement shall be deemed to include an undertaking on the part of the Company to cause such Subsidiary to take such action.

[*Signature page follows*]

IN WITNESS WHEREOF, Parent, Merger Sub and the Company have caused this Agreement to be executed as of the date first written above by their respective officers or managers thereunto duly authorized.

Parent:

PEGASUS HOLDINGS III, LLC

By: /s/ Michael A. Reiss
Name: Michael A. Reiss
Title: President

Merger Sub:

PEGASUS MERGER CO.

By: /s/ Michael A. Reiss
Name: Michael A. Reiss
Title: President

[Signature Page to Agreement and Plan of Merger]

The Company:

TENNECO INC.

By: /s/ Brian J. Kessesler
Name: Brian J. Kesseler
Title: Chief Executive Officer

[Signature Page to Agreement and Plan of Merger]

CERTIFICATE OF INCORPORATION
OF
[COMPANY]

[•]

FIRST: The name of this corporation (the "Corporation") shall be [COMPANY].

SECOND: Its registered office in the State of Delaware is to be located at 1209 Orange Street, Corporation Trust Center, Wilmington, New Castle County, Delaware 19801, United States, and the name of its registered agent at such address is The Corporation Trust Company.

THIRD: The purpose or purposes of the Corporation shall be to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware (the "DGCL").

FOURTH: The total number of shares of stock which this Corporation is authorized to issue is 1,000. All such shares are of one class and are shares of Common Stock with the par value of $0.01 per share.

FIFTH: The Board of Directors shall have the power to adopt, amend or repeal the bylaws.

SIXTH: A director of the Corporation shall not be liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL as the same exists or may hereafter be amended. Any amendment, modification or repeal of the foregoing sentence shall not adversely affect any right or protection of a director of the Corporation hereunder in respect of any act or omission occurring prior to the time of such amendment, modification or repeal.

SEVENTH: To the fullest extent permitted by applicable law, the Corporation is authorized to provide indemnification of (and advancement of expenses to) the directors, officers, employees and agents of the Corporation through bylaw provisions, agreements with such directors, officers, employees and agents, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the DGCL.

Any amendment, repeal or modification of the foregoing provisions of this Article Seventh shall not adversely affect any right or protection of a director, officer, employee or agent existing at the time of any acts or omissions of such director, officer, employee or agent occurring prior to such amendment, repeal or modification.

BYLAWS
OF
[COMPANY]
Dated as of: [•]

ARTICLE I

OFFICES

Section 1. REGISTERED OFFICES. The registered office shall be in Wilmington, Delaware, or such other location as the Board of Directors of the corporation (the "Board of Directors") may determine or the business of the corporation may require.

Section 2. OTHER OFFICES. The corporation may also have offices at such other places both within and without the State of Delaware as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II

MEETINGS OF STOCKHOLDERS

Section 1. PLACE OF MEETINGS. Meetings of stockholders shall be held at any place within or outside the State of Delaware as designated by the Board of Directors. In the absence of any such designation, stockholders' meetings shall be held at the principal executive office of the corporation.

Section 2. ANNUAL MEETING OF STOCKHOLDERS. The annual meeting of stockholders shall be held each year on a date and a time designated by the Board of Directors. At each annual meeting directors shall be elected and any other proper business may be transacted.

Section 3. QUORUM; ADJOURNED MEETINGS AND NOTICE THEREOF. A majority of the stock issued and outstanding and entitled to vote at any meeting of stockholders, the holders of which are present in person or represented by proxy, shall constitute a quorum for the transaction of business except as otherwise provided by law, by the Certificate of Incorporation of the corporation (the "Certificate of Incorporation"), or by these Bylaws. A quorum, once established, shall not be broken by the withdrawal of enough votes to leave less than a quorum and the votes present may continue to transact business until adjournment. If, however, such quorum shall not be present or represented at any meeting of the stockholders, a majority of the voting stock represented in person or by proxy may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present or represented. At such adjourned meeting at which a quorum shall be present or represented, any business may be transacted which might have been transacted at the meeting as originally notified. If the adjournment is for more than thirty days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote thereat.

Section 4. VOTING. When a quorum is present at any meeting, in all matters other than the election of directors, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which by express provision of the statutes, or the Certificate of Incorporation, or these Bylaws, a different vote is required in which case such express provision shall govern and control the decision of such question. Directors shall be elected by a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors.

Section 5. PROXIES. At each meeting of the stockholders, each stockholder having the right to vote may vote in person or may authorize another person or persons to act for him by proxy appointed by an instrument in writing subscribed by such stockholder and bearing a date not more than three years prior to said meeting, unless said instrument provides for a longer period. All proxies must be filed with the Secretary of the corporation at the beginning of each meeting in order to be counted in any vote at the meeting. Each stockholder shall have one vote for each share of stock having voting power, registered in his name on the books of the corporation on the record date set by the Board of Directors as provided in Article VI, Section 5 hereof.

Section 6. SPECIAL MEETINGS. Special meetings of the stockholders, for any purpose or purposes, unless otherwise prescribed by statute or by the Certificate of Incorporation, may be called by the President and shall be called by the President or the Secretary at the request in writing of a majority of the Board of Directors, or at the request in writing of stockholders owning a majority in amount of the entire capital stock of the corporation issued and outstanding, and entitled to vote. Such request shall state the purpose or purposes of the proposed meeting. Business transacted at any special meeting of stockholders shall be limited to the purposes stated in the notice.

Section 7. NOTICE OF STOCKHOLDERS' MEETINGS. Whenever stockholders are required or permitted to take any action at a meeting, a written notice of the meeting shall be given which notice shall state the place, date and hour of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. The written notice of any meeting shall be given to each stockholder entitled to vote at such meeting not less than ten nor more than sixty days before the date of the meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at his address as it appears on the records of the corporation.

Section 8. MAINTENANCE AND INSPECTION OF STOCKHOLDER LIST. The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

Section 9. STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING. Unless otherwise provided in the Certificate of Incorporation, any action required to be taken at any annual or special meeting of stockholders of the corporation, or any action which may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted and shall be delivered to the corporation by delivery to its registered office in Delaware, its principal place of business, or to an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Every written consent shall bear the date of signature of each stockholder who signs the consent and no written consent shall be effective to take the corporate action referred to therein unless, within sixty days of the earliest dated consent delivered in the manner required by this Section 9 to the corporation, written consents signed by a sufficient number of holders to take action are delivered to the corporation by delivery to its registered office in Delaware, its principal place of business or to an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing.

ARTICLE III
DIRECTORS

Section 1. THE NUMBER OF DIRECTORS. The initial number of directors shall be equal to the number of directors appointed by the incorporator. Thereafter, the Board of Directors shall consist of at least one (1) director, the number thereof to be determined from time to time by resolution of the Board of Directors. The directors need not be stockholders. The directors shall be elected at the annual meeting of the stockholders, except as provided in Section 2 of this Article, and the directors elected shall hold office until his successor is elected and qualified; provided, however, that unless otherwise restricted by the Certificate of Incorporation or by law, any director or the entire Board of Directors may be removed, either with or without cause, from the Board of Directors at any meeting of stockholders by a majority of the stock represented and entitled to vote thereat.

Section 2. VACANCIES. Vacancies on the Board of Directors by reason of death, resignation, retirement, disqualification, removal from office, or otherwise, and newly created directorships resulting from any increase in the authorized number of directors may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director. The directors so chosen shall hold office until the next annual election of directors and until their successors are duly elected and shall qualify, unless sooner displaced. If there are no directors in office, then an election of directors may be held in the manner provided by statute.

Section 3. POWERS. The property and affairs of the corporation shall be managed by or under the direction of its Board of Directors.

Section 4. PLACE OF DIRECTORS' MEETINGS. The directors may hold their meetings and have one or more offices, and keep the books of the corporation outside of the State of Delaware.

Section 5. REGULAR MEETINGS. Regular meetings of the Board of Directors may be held without notice at such time and place as shall from time to time be determined by the Board of Directors.

Section 6. SPECIAL MEETINGS. Special meetings of the Board of Directors may be called by the President on forty-eight hours' notice to each director, either personally or by mail; special meetings shall be called by the President or the Secretary in like manner and on like notice on the written request of two directors unless the Board of Directors consists of only one director; in which case special meetings shall be called by the President or Secretary in like manner or on like notice on the written request of the sole director.

Section 7. QUORUM. At all meetings of the Board of Directors a majority of the authorized number of directors shall be necessary and sufficient to constitute a quorum for the transaction of business, and the vote of a majority of the directors present at any meeting at which there is a quorum, shall be the act of the Board of Directors, except as may be otherwise specifically provided by statute, by the Certificate of Incorporation or by these Bylaws. If a quorum shall not be present at any meeting of the Board of Directors, the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present. If only one director is authorized, such sole director shall constitute a quorum.

Section 8. ACTION WITHOUT MEETING. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing, and the writing or writings are filed with the minutes of proceedings of the Board of Directors or committee.

Section 9. TELEPHONIC MEETINGS. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, members of the Board of Directors, or any committee designated by the Board of Directors, may participate in a meeting of the Board of Directors, or any committee, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at such meeting.

Section 10. COMMITTEES OF DIRECTORS. The Board of Directors may, by resolution passed by a majority of the whole Board of Directors, designate one or more committees, each such committee to consist of one or more of the directors of the corporation. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee,

to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to amending the Certificate of Incorporation, adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease or exchange of all or substantially all of the corporation's property and assets, recommending to the stockholders a dissolution of the corporation or a revocation of a dissolution, or amending the Bylaws of the corporation; and, unless the resolution or the Certificate of Incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend or to authorize the issuance of stock.

Section 11. MINUTES OF COMMITTEE MEETINGS. Each committee shall keep regular minutes of its meetings and report the same to the Board of Directors when required.

Section 12. COMPENSATION OF DIRECTORS. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, the Board of Directors shall have the authority to fix the compensation of directors. The directors may be paid their expenses, if any, of attendance at each meeting of the Board of Directors and may be paid a fixed sum for attendance at each meeting of the Board of Directors or a stated salary as director. No such payment shall preclude any director from serving the corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like compensation for attending committee meetings.

ARTICLE IV
OFFICERS

Section 1. OFFICERS. The officers of this corporation shall be chosen by the Board of Directors and shall include a Chairman of the Board of Directors or a President, or both, and a Secretary. The corporation may also have, at the discretion of the Board of Directors, such other officers as are desired, including a Vice-Chairman of the Board of Directors, a Chief Executive Officer, a Chief Financial Officer, one or more Vice Presidents, one or more Assistant Secretaries and Assistant Treasurers, and such other officers as may be appointed in accordance with the provisions of Section 3 hereof. At the time of the election of officers, the directors may by resolution determine the order of their rank, if any. Any number of offices may be held by the same person, unless the Certificate of Incorporation or these Bylaws otherwise provide.

Section 2. ELECTION OF OFFICERS. The Board of Directors, at its first meeting after each annual meeting of stockholders, shall choose the officers of the corporation.

Section 3. SUBORDINATE OFFICERS. The Board of Directors may appoint such other officers and agents as it shall deem necessary who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board of Directors.

Section 4. TERM OF OFFICE; REMOVAL AND VACANCIES. The officers of the corporation shall hold office until their successors are chosen and qualify in their stead. Any officer elected or appointed by the Board of Directors may be removed at any time by the

affirmative vote of a majority of the Board of Directors. If the office of any officer or officers becomes vacant for any reason, the vacancy shall be filled by the Board of Directors.

Section 5. CHAIRMAN OF THE BOARD. The Chairman of the Board, if such an officer be elected, shall, if present, preside at all meetings of the Board of Directors and exercise and perform such other powers and duties as may be from time to time assigned to him by the Board of Directors or prescribed by these Bylaws. If there is no President, the Chairman of the Board shall in addition be the Chief Executive Officer of the corporation and shall have the powers and duties prescribed in Section 6 of this Article IV.

Section 6. PRESIDENT. Subject to such supervisory powers, if any, as may be given by the Board of Directors to the Chairman of the Board, if there be such an officer, the President shall be the Chief Executive Officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. He shall preside at all meetings of the stockholders and, in the absence of the Chairman of the Board, or if there be none, at all meetings of the Board of Directors. He shall be an ex-officio member of all committees and shall have the general powers and duties of management usually vested in the office of President and Chief Executive Officer of corporations, and shall have such other powers and duties as may be prescribed by the Board of Directors or these Bylaws.

Section 7. VICE PRESIDENTS. In the absence or disability of the President, the Vice Presidents in order of their rank as fixed by the Board of Directors, or if not ranked, the Vice President designated by the Board of Directors, shall perform all the duties of the President, and when so acting shall have all the powers of and be subject to all the restrictions upon the President. The Vice Presidents shall have such other duties as from time to time may be prescribed for them, respectively, by the Board of Directors.

Section 8. SECRETARY. The Secretary shall attend all sessions of the Board of Directors and all meetings of the stockholders and record all votes and the minutes of all proceedings in a book to be kept for that purpose; and shall perform like duties for the standing committees when required by the Board of Directors. He shall give, or cause to be given, notice of all meetings of the stockholders and of the Board of Directors, and shall perform such other duties as may be prescribed by the Board of Directors or these Bylaws. He shall keep in safe custody the seal of the corporation, and when authorized by the Board of Directors, affix the same to any instrument requiring it, and when so affixed it shall be attested by his signature or by the signature of an Assistant Secretary. The Board of Directors may give general authority to any other officer to affix the seal of the corporation and to attest the affixing by his signature.

Section 9. ASSISTANT SECRETARY. The Assistant Secretary, or if there be more than one, the Assistant Secretaries in the order determined by the Board of Directors, or if there be no such determination, the Assistant Secretary designated by the Board of Directors, shall, in the absence or disability of the Secretary, perform the duties and exercise the powers of the Secretary and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

Section 10. CHIEF FINANCIAL OFFICER. The Chief Financial Officer shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation and shall deposit all moneys, and other valuable effects in the name and to the credit of the corporation, in such depositories as may be designated by the Board of Directors. He shall disburse the funds of the corporation as may be ordered by the Board of Directors, taking proper vouchers for such disbursements, and shall render to the Board of Directors, at its regular meetings, or when the Board of Directors so requires, an account of all his transactions as Chief Financial Officer and of the financial condition of the corporation. If required by the Board of Directors, he shall give the corporation a bond, in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors, for the faithful performance of the duties of his office and for the restoration to the corporation, in case of his death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his possession or under his control belonging to the corporation.

Section 11. ASSISTANT TREASURER. The Assistant Treasurer, or if there shall be more than one, the Assistant Treasurers in the order determined by the Board of Directors, or if there be no such determination, the Assistant Treasurer designated by the Board of Directors, shall, in the absence or disability of the Chief Financial Officer, perform the duties and exercise the powers of the Chief Financial Officer and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

ARTICLE V

INDEMNIFICATION OF DIRECTORS AND OFFICERS AND ADVANCEMENT OF EXPENSES

Section 1. INDEMNIFICATION. The corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (an "Indemnitee") who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative, including appeals (a "proceeding"), by reason of the fact that he, or a person for whom he is the legal representative, is or was a director or officer of the corporation or, while a director or officer of the corporation is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such Indemnitee. Notwithstanding the preceding sentence, except as otherwise provided in this Article V, the corporation shall be required to indemnify an Indemnitee in connection with a proceeding (or part thereof) commenced by such Indemnitee only if the commencement of such proceeding (or part thereof) by the Indemnitee was authorized by the Board of Directors. The corporation shall pay the expenses (including attorneys' fees) incurred by an Indemnitee in defending any proceeding in advance of its final disposition, provided, however, that, to the extent required by law, such payment of expenses in advance of the final disposition of the proceeding shall be made only upon receipt of an undertaking by the Indemnitee to repay all amounts advanced if it should be ultimately determined that the Indemnitee is not entitled to be indemnified under this Article V or otherwise. If a claim for indemnification under this Article V (following the final disposition of such action, suit or proceeding) or if a claim for any advancement of expenses under this Article V is not paid in full within thirty days after a written claim therefor by the Indemnitee has been received by the

corporation, the Indemnitee may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim to the fullest extent permitted by law. In any such action the corporation shall have the burden of proving that the Indemnitee is not entitled to the requested indemnification or advancement of expenses under applicable law.

Section 2. RIGHTS NOT EXCLUSIVE. The rights conferred on any Indemnitee by this Section 14 shall not be exclusive of any other rights which such Indemnitee may have or hereafter acquire under any statute, provision of the Certificate of Incorporation, these Bylaws, agreement, vote of stockholders or disinterested directors or otherwise. This Article V shall not limit the right of the corporation, to the extent and in the manner permitted by law, to indemnify and to advance expenses to persons other than Indemnitees when and as authorized by appropriate corporate action.

Section 3. INDEMNIFICATION BY THIRD PARTIES. The corporation's obligation, if any, to indemnify or to advance expenses to any Indemnitee who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, enterprise or nonprofit entity shall be reduced by an amount such Indemnitee may collect as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust enterprise or nonprofit enterprise.

Section 4. AMENDMENT TO INDEMNIFICATION RIGHTS. Any right to indemnification or to advancement of expenses of any Indemnitee arising hereunder shall not be eliminated or impaired by an amendment to or repeal of these Bylaws after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought.

Section 5. DIRECTORS AND OFFICERS INSURANCE. The Board of Directors may authorize, by a vote of a majority of a quorum of the Board of Directors, the corporation to purchase and maintain insurance on behalf of any person who is or was a director or officer of the corporation, or is or was serving at the request of the corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify him against such liability under the provisions of this Article V.

Section 6. CORPORATION DEFINED; EFFECTS OF MERGER OR CONSOLIDATION. For the purposes of this Article V, references to "the corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors or officers so that any person who is or was a director or officer of such constituent corporation, or is or was serving at the request of such constituent corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Article V with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

Section 7. OTHER ENTERPRISES DEFINED. For purposes of this section, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "serving at the request of the corporation" shall include service as a director or officer of the corporation which imposes duties on, or involves services by, such director or officer with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this section.

Section 8. CESSATION OF DIRECTOR OR OFFICER STATUS. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article V shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director or officer and shall inure to the benefit of the heirs, executors and administrators of such a person.

ARTICLE VI
CERTIFICATES OF STOCK

Section 1. CERTIFICATES. At the option of the Board of Directors, the stock of the corporation may be (i) uncertificated, evidenced by entries into the corporation's stock ledger or other appropriate corporate books and records, as the Board of Directors may determine from time to time, or (ii) evidenced by a certificate signed by, or in the name of the corporation by, the Chairman or Vice-Chairman of the Board of Directors, or the President or a Vice President, and by the Secretary or an Assistant Secretary, or the Chief Financial Officer or an Assistant Treasurer of the corporation, certifying the number of shares represented by the certificate owned by such stockholder in the corporation.

Section 2. SIGNATURES ON CERTIFICATES. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if he were such officer, transfer agent, or registrar at the date of issue.

Section 3. LOST CERTIFICATES. The Board of Directors may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed. When authorizing such issue of a new certificate or certificates, the Board of Directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificate or certificates, or his legal representative, to advertise the same in such manner as it shall require and/or to give the corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

Section 4. TRANSFERS OF STOCK. Upon surrender to the corporation, or the transfer agent of the corporation, of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books.

Section 5. FIXED RECORD DATE. In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of the stockholders, or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix a record date which shall not be more than sixty nor less than ten days before the date of such meeting, nor more than sixty days prior to any other action. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting. In order that the corporation may determine the stockholders entitled to consent to corporate action in writing without a meeting, the Board of Directors may fix a record date which shall not be more than ten days after the date upon which the resolution fixing the record date is adopted by the Board of Directors.

Section 6. REGISTERED STOCKHOLDERS. The corporation shall be entitled to treat the holder of record of any share or shares of stock as the holder in fact thereof and accordingly shall not be bound to recognize any equitable or other claim or interest in such share on the part of any other person, whether or not it shall have express or other notice thereof, save as expressly provided by the laws of the State of Delaware.

ARTICLE VII
GENERAL PROVISIONS

Section 1. DIVIDENDS. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation, if any, may be declared by the Board of Directors at any regular or special meeting, pursuant to law. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation.

Section 2. PAYMENT OF DIVIDENDS; DIRECTORS' DUTIES. Before payment of any dividend there may be set aside out of any funds of the corporation available for dividends such sum or sums as the directors from time to time, in their absolute discretion, think proper as a reserve fund to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the directors shall think conducive to the interests of the corporation, and the directors may abolish any such reserve.

Section 3. CHECKS. All checks or demands for money and notes of the corporation shall be signed by such officer or officers as the Board of Directors may from time to time designate.

Section 4. FISCAL YEAR. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

Section 5. CORPORATE SEAL. The corporate seal shall have inscribed thereon the name of the corporation, the year of its organization and the words "Corporate Seal, Delaware." Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

Section 6. MANNER OF GIVING NOTICE. Whenever, under the provisions of the statutes or of the Certificate of Incorporation or of these Bylaws, notice is required to be given to any director or stockholder, it shall not be construed to mean personal notice, but such notice may be given in writing, by mail, addressed to such director or stockholder, at his address as it appears on the records of the corporation, with postage thereon prepaid, and such notice shall be deemed to be given at the time when the same shall be deposited in the United States mail. Notice to directors may also be given by telegram.

Section 7. WAIVER OF NOTICE. Whenever any notice is required to be given under the provisions of the statutes or of the Certificate of Incorporation or of these Bylaws, a waiver thereof in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent thereto.

ARTICLE VIII
AMENDMENTS

AMENDMENT BY DIRECTORS OR STOCKHOLDERS. These Bylaws may be altered, amended or repealed or new Bylaws may be adopted by the stockholders or by the Board of Directors, when such power is conferred upon the Board of Directors by the Certificate of Incorporation, at any regular meeting of the stockholders or of the Board of Directors or at any special meeting of the stockholders or of the Board of Directors. If the power to adopt, amend or repeal Bylaws is conferred upon the Board of Directors by the Certificate of Incorporation it shall not divest or limit the power of the stockholders to adopt, amend or repeal Bylaws.

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Exhibit 10.16

TENNECO INC. ANNUAL INCENTIVE PLAN
(As Amended and Restated Effective as of January 1, 2022)

1. History and Purpose. Tenneco Inc., a Delaware corporation (together with its successors and assigns, the "Company"), previously established the Tenneco Inc. Annual Incentive Plan (the "Plan") to aid it in attracting, retaining, motivating and rewarding employees of the Company and its Affiliates (as defined herein) by providing for a cash bonus program that will serve as an incentive to foster a culture of performance and ownership, promote employee accountability, and to reward continuing improvements in stockholder value with an opportunity to participate in a portion of the wealth created. The following provisions constitute an amendment, restatement and continuation of the Plan effective for periods on and after January 1, 2022.

2. Definitions. Capitalized terms used herein shall have the following meanings:

(a) "Affiliate" means a corporation or other entity that directly, or indirectly through one or more intermediaries, controls, is controlled by or is under common control with the Company. For purposes of the Plan, an ownership interest of more than fifty percent (50%) shall be deemed to be a controlling interest.

(b) "Administrator" means the Board or the Committee. The term Administrator shall include, with respect to any authority delegated to them pursuant to the Plan, officers of the Company (or committees thereof) to whom the Board or the Committee may from time to time delegate authority hereunder as provided in subsection 3(d).

(c) "AIP Bonus" means the amount of the annual bonus for a given Performance Year payable to a Participant, as determined by the Administrator in accordance with the AIP Bonus Formula and in accordance with the terms and conditions of the Plan and the Bonus Formula Methodology approved by the Administrator for the applicable Performance Year. An AIP Bonus is not payable to a Participant until it is earned and vested in accordance with the terms of the Plan.

(d) "AIP Bonus Formula" means, for a Performance Year, the methodology to be used to calculate the AIP Bonus for each Participant, as set forth in the Bonus Formula Methodology for such Performance Year. Application of the AIP Bonus Formula in the calculation of any AIP Bonus shall be subject to the terms and conditions of the Plan and the Bonus Formula Methodology for the applicable Performance Year.

(e) "AIP Target Bonus Opportunity" means an amount (specified as such or determined pursuant to a formula) and denominated in local currency that a Participant potentially may earn as an AIP Bonus in respect of a specified Performance Year at the targeted level of Performance. An AIP Target Bonus Opportunity constitutes only a conditional right to receive an AIP Bonus and does not guarantee receipt of an AIP Bonus or any level of AIP Bonus based on Performance or otherwise.

(f) "Authorized Leave" means an authorized leave of absence determined in accordance with the human resource policies and procedures of the Company or its applicable Affiliate.

(g) "Board" means the Company's Board of Directors.

(h) "Bonus Formula Methodology" means, for any Performance Year, the methodology to be used to calculate the AIP Bonus for each Participant, as approved by the Administrator for such Performance Year.

(i) "Cause" means the Participant's (i) commission of an act of fraud, embezzlement or theft in connection with the Participant's employment, (ii) commission of intentional wrongful damage to property of the Company or an Affiliate, (iii) failure to perform the material duties of employment after receipt of written notice from the Company or an Affiliate, or (iv) conviction of a felony (or plea of guilty or nolo contendere with respect thereto).

(j) "Code" means the Internal Revenue Code of 1986, as amended.

(k) "Committee" means the Compensation Committee of the Board and any successor committee of the Board thereto or, in the absence of such a committee or at the Board's discretion, the full Board.

(l) "Company" has the meaning set forth in Section 1.

(m) "Completion Multiple" means (i) in the case of a Participant whose Termination Year occurs during a Performance Year, a fraction, the numerator of which shall equal the total number of calendar days during the Termination Year during which the Participant was employed by and actively at work for the Company and its Affiliates on or prior to his or her Termination Date, and the denominator of which shall be 365 (366 if the Termination Year is a leap year), (ii) in the case of a Participant who was on an Authorized Leave during a Performance Year, a fraction, the numerator of which shall equal the total number of calendar days that Performance Year during which the Participant was employed by and actively at work for the Company or its Affiliates and was not on an Authorized Leave, and the denominator of which shall be 365 (366 if the Performance Year is a leap year), and (iii) in the case of a Participant who ceases to be an Eligible Employee on or prior to the last day of a Performance Year (but whose Termination Date has not occurred), a fraction, the numerator of which shall equal the total number of calendar days during the Performance Year during which the Participant was an Eligible Employee and a Participant in the Plan, and the denominator of which shall be 365 (366 if the Performance Year is a leap year). The provisions of clauses (i), (ii) and (ii) are to be applied in addition to, and not in limitation of, each other. Notwithstanding the foregoing, the Company, in its discretion, may apply an alternative method of proration that approximates the foregoing proration, such as payroll periods or months.

(n) "Disability" means an event that results in the Participant being (i) unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, or (ii) by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, receiving income replacement benefits for a period of not less than three (3) months under an accident and health plan covering employees of the Company or its Affiliates.

(o) "Eligible Employee" means any salaried employee of the Company's Affiliates who holds the position of Plant Manager, Director or above, including employees who have been designated as an Officer of the Company; *provided* they hold the position of Plant Manager, Director or above.

(p) "Exchange Act" means the Securities and Exchange Act of 1934, as amended.

(q) "Participant" means, for a Performance Year, an Eligible Employee who has been granted an AIP Target Bonus Opportunity under the Plan for the Performance Year. An individual whose AIP Bonus under the Plan for a Performance Year is earned and vested but remains outstanding shall also be a Participant solely with respect to such earned and vested AIP Bonus.

(r) "Payment Date" means the date on which the AIP Bonus for a Performance Year is paid to a Participant, which date shall be in the calendar year following the last day of the Performance Year as determined by the Administrator.

(s) "Performance" means the extent to which the performance targets (including, if applicable, percentage levels of performance) and other components of the AIP Bonus Formula have been achieved for a Performance Year.

(t) "Performance Year" means the Company's fiscal year or portion thereof specified by the Administrator as the period over which Performance is to be measured pursuant to the AIP Bonus Formula for that period. Unless otherwise specified by the Administrator, the Performance Year shall be the calendar year.

(u) "PIP" means a performance improvement plan, as may be in effect from time to time, or similar probationary performance period instituted by the Company or any Affiliate.

(v) "Plan" has the meaning set forth in Section 1.

(w) "Retirement" means the Participant's termination of employment with the Company and its Affiliates, other than termination by the Company and its Affiliates for cause, which shall include the failure to meet the obligations required by the individual's position (as determined in the reasonable discretion of the Committee), after the date on which the Participant attains (i) age 65 or (ii) age 55 and has completed at least 10 years of service with the Company and its Affiliates.

(x) "Section 409A" has the meaning set forth in Section 9.

(y) "Termination Date" means the date on which the Participant's employment with the Company and its Affiliates terminates for any reason. A transfer of a Participant's employment between and among the Company or an Affiliate shall not be deemed to constitute a termination of employment for purposes of the Plan.

(z) "Termination Year" means the Performance Year in which the Participant's Termination Date occurs.

3. Administration.

(a) Authority of the Administrator. The Plan shall be administered by the Administrator, which shall have full and final authority and discretion, in each case subject to and consistent with the provisions of the Plan and any applicable laws or regulations, to:

(i) select, or determine the method of selecting, Eligible Employees who will receive the grant of an AIP Target Bonus Opportunity under the Plan for a Performance Year (and thereby become a Participant in the Plan for such Performance Year);

(ii) establish the AIP Bonus Formula for a Performance Year;

(iii) grant AIP Target Bonus Opportunities to Participants and determine the amount of AIP Bonuses to be paid under the Plan for any period;

(iv) modify the AIP Bonus Formula, any AIP Target Bonus Opportunity or, prior to the date on which it is earned and vested, any AIP Bonus otherwise payable under the Plan, whether based on the AIP Bonus Formula, Performance or otherwise, including decreasing such amounts as described herein;

(v) adopt such rules, regulations and guidelines for interpreting, implementing and administering the Plan as it deems necessary or proper;

(vi) conclusively construe and interpret the Plan documents and correct defects, supply omissions or reconcile inconsistencies therein;

(vii) employ attorneys, consultants, accountants, and other persons in connection with the administration of the Plan; and

(viii) make all other decisions and determinations as the Administrator may deem necessary or advisable for the administration of the Plan.

(b) Binding Effect of Administrator Actions. All actions taken and all interpretations and determinations made by the Administrator with respect to the Plan shall be final and binding upon the Participants, the Company and all other interested persons.

(c) Manner of Exercise Administrator Authority. The express grant of any specific power to the Administrator, and the taking of any action by the Administrator, shall not be construed as limiting any power or authority of the Administrator.

(d) Delegation of Authority. The Administrator may delegate to one or more officers or managers of the Company or an Affiliate, or committees thereof, the authority, subject to such terms as the Administrator shall determine, to perform such functions, including administrative functions, as the Administrator may determine, to the extent that such delegation is permitted under the applicable provisions of the Delaware General Corporation Law and the provisions of the Plan.

(e) Limitation of Liability. Each person acting in their capacity as Administrator, and each person acting pursuant to authority delegated by the Administrator, shall be entitled, in good faith, to rely or act upon any report or other information furnished by any executive officer, other officer or employee of the Company or its Affiliates, or the Company's independent auditors, consultants or other agents assisting in the administration of the Plan. Each person acting as the Administrator or pursuant to authority delegated by the Administrator, and any officer or employee of the Company or any of its Affiliates acting at the direction or on behalf of the Administrator or a delegate, shall not be personally liable for any action or determination taken or made in good faith with respect to the Plan and shall, to the fullest extent permitted by law and the Company's By-Laws, be fully indemnified and protected by the Company with respect to any such action or determination.

(f) Local Laws and Rules. Without limiting the generality of the duties and authorities granted to the Administrator under the Plan, the Administrator may establish rules and regulations for grants of AIP Target Bonus Opportunities and AIP Bonuses to nationals of countries other than the United States that may differ from the rules and regulations for grants of AIP Target Bonus Opportunities and AIP Bonuses to other persons if, in the judgment of the Administrator, such differences are necessary or desirable to foster and promote achievement of the purposes of the Plan (including compliance with provisions of laws in other countries or jurisdictions in which the Company or an Affiliate operates or in which a Participant is employed or performs services).

(g) Adjustment to Payments. Notwithstanding anything to the contrary contained herein, the Administrator shall have the authority to change the AIP Target Bonus Opportunity of any Participant based upon the recommendation of the Participant's manager or any of his or her direct or indirect supervisors (including, without limitation, the Chief Executive Officer). The Company retains the right to withhold any payment amounts determined hereunder (whether or not such amounts are earned and vested) from any Participant who violates any Company policy and to treat such withheld payments as forfeited by the Participant. Notwithstanding any other provision of the Plan or the applicable Bonus Formula Methodology for any Performance Year to the contrary, the Administrator may, in its sole and absolute discretion, adjust the amount of an AIP Target Bonus Opportunity or amend or cancel an AIP Bonus, in either case prior to the date on which the AIP Bonus is earned and vested; provided, however, that in no event shall the amount of a Participant's AIP Bonus for any Performance Year exceed the Maximum Amount, if any, set forth in the Bonus Formula Methodology for the applicable Performance Year. In addition, the Administrator, in its sole and absolute discretion, is authorized to make adjustments in the terms and conditions of, and the performance targets and other criteria included in, the AIP Bonus Formula.

4. Participation. The Administrator, in its sole and absolute discretion, may select any Eligible Employees to participate in the Plan for a specified Performance Year, which Eligible Employees so selected will be "Participants" for such Performance Year. An Eligible Employee who is not selected to participate in the Plan for a specified Performance Year shall not be entitled to any AIP Bonus under the Plan for such Performance Year and shall not be a Participant for such Performance Year. Unless otherwise provided by the Administrator, any Eligible Employee who has been selected for participation in the Plan for a Performance Year shall become a Participant as of the first day of such Performance Year; provided, however, that if an individual who is selected for participation is not an Eligible Employee as of the first day of the Performance Year, such individual shall become a Participant on the date specified by the Administrator (but in no event prior to the date on which such individual is an Eligible Employee). An individual whose employment with the Company or an Affiliate commences, or an individual who otherwise becomes an Eligible Employee, after September 30 of any Performance Year shall not be eligible to be a Participant for that Performance Year.

5. Establishment of AIP Bonus Formula and AIP Target Bonus Opportunities.

(a) Establishment of AIP Bonus Formula. Within the first ninety (90) days of the Performance Year, the Administrator shall establish the AIP Bonus Formula for the Performance Year.

(b) Establishment of AIP Target Bonus Opportunities. For each Performance Year, the Administrator shall designate, for each Participant, such Participant's AIP Target Bonus Opportunity. AIP Target Bonus Opportunities will be denominated in cash and all AIP Bonuses will be payable in cash.

(c) Newly Eligible Participants. In the case of an Eligible Employee who becomes a Participant after the beginning of a Performance Year, the Administrator shall designate, prior to the date on which such Eligible Employee becomes a Participant, such individual's AIP Target Bonus Opportunity for the portion of the Performance Year remaining after he or she becomes a Participant.

(d) Written Determinations. Determinations by the Administrator under this Section 5, including AIP Target Bonus Opportunities for each Participant, the level of Performance for the Performance Year and the amount of the AIP Bonus for each Participant shall be recorded in writing as determined in such form as the Administrator may determine.

6. Determination of AIP Bonus; Earning and Payment of AIP Bonus.

(a) Determination of AIP Bonus. As soon as practicable after the end of the Performance Year and prior to the Payment Date, the Administrator shall determine the amount of the AIP Bonus to be paid to each Participant for the Performance Year. Subject to the terms and conditions of the Plan, the AIP Bonuses shall be determined in accordance with the AIP Bonus Formula for the Performance Year. Unless otherwise specifically provided in the Plan or determined by the Administrator (or otherwise specifically provided under a separate agreement, plan or policy conferring rights on the Participant), the AIP Bonus shall be earned and vested upon the Payment Date and only with respect to a Participant who remains actively employed by the Company or an Affiliate on the Payment Date, unless otherwise required by applicable law.

(b) Determination of AIP Bonus--Leaves of Absence. If, during any Performance Year, a Participant is on an Authorized Leave, (i) the Participant's AIP Bonus for the Performance Year shall be equal to the amount of the AIP Bonus that the Participant would have been entitled to receive for that Performance Year (determined in accordance with Section 5 and subsection 6(a)) had he or she not been on an Authorized Leave during such Performance Year, as applicable, multiplied by the Completion Multiple.

(c) Determination of AIP Bonus--Ineligibility During Performance Year. If an Eligible Employee is a Participant in the Plan for a Performance Year and, during such Performance Year, he or she ceases to be an Eligible Employee (other than as a result of his or her Termination Date and other than as a result of an Authorized Leave), the Participant's AIP Bonus for the Performance Year shall be equal to the amount of the AIP Bonus that the Participant would have been entitled to receive for that Performance Year (determined in accordance with Section 5 and subsection 6(a)), multiplied by the Completion Multiple.

(d) Payment of AIP Bonus. Any AIP Bonus for a Performance Year shall be paid by the Company, or the Affiliate that employs the Participant, which payment shall be made no later than the Payment Date for such Performance Year. Except as otherwise provided herein or as provided by the Administrator in accordance with its authority under the Plan, if a Participant's Termination Date occurs prior to the Payment Date for any Performance Year, the Participant shall not be entitled to payment of an AIP Bonus for such Performance Year (including the AIP Bonus for any completed Performance Year for which the Payment Date has not yet occurred) and the Participant shall have no further rights under the Plan.

(e) Special Rules for Death, Retirement or Disability. Notwithstanding the provisions of subsection 6(a) or 6(d), except as otherwise provided herein or as provided by the Administrator in accordance with its authority under the Plan, in the event that a Participant's Termination Date occurs due to his or her death, Retirement or Disability:

(i) the Participant's AIP Bonus for the Termination Year shall be equal to the amount of the AIP Bonus that the Participant would have been entitled to receive for that Performance Year (determined in accordance with Section 5 and subsection 6(a)) had his or her Termination Date not occurred prior to the Payment Date for the Termination Year, multiplied by the Completion Multiple;

(ii) if the Termination Date occurs after the end of a Performance Year and prior to the Payment Date for such Performance Year, the Participant's AIP Bonus for such Performance Year shall be equal to the amount of the AIP Bonus for such prior Performance Year (determined in accordance with Section 5 and subsection 6(a)); and

(iii) notwithstanding that the Participant's Termination Date occurs prior to the Payment Date for the applicable Performance Year, the Participant shall be entitled to payment of the AIP Bonus described under paragraph (i) and/or (ii), such AIP Bonuses shall be earned and vested as of the Termination Date and such AIP Bonuses shall be paid as of the Payment Date for the applicable Performance Year with respect to Participants whose Termination Date has not occurred.

(f) Determination of AIP Bonus—PIPs and Low Performance Ratings. If, during any Performance Year, a Participant is subject to a PIP or receives a low performance rating, the Participant shall be paid an AIP Bonus in such amount, if any, as determined by the Company.

7. General Provisions.

(a) No Right to Employment. Neither the Plan, its adoption, its operation, nor any action taken under the Plan shall be construed as giving any employee the right to be retained or continued in the employ of the Company or any of its Affiliates, nor shall it interfere in any way with the right and power of the Company or any of its Affiliates to discharge any employee or take any action that has the effect of terminating any employee's employment or service at any time.

(b) Plan Expenses. The expenses of the Plan and its administration shall be borne by the Company.

(c) Plan Not Funded; No Guarantee. The Plan shall be unfunded. Neither the Company nor any of its Affiliates shall be required to establish any special or separate fund or to make any other segregation of assets to assure the payment of any AIP Bonus hereunder. Participation in the Plan is not a guarantee that any amounts will be paid under the Plan. Participation in the Plan is a privilege, not a right, and each individual Participant's participation in the Plan is subject to review from time to time at the discretion of the Company. Receipt of an AIP Bonus in any one year does not guarantee receipt of an AIP Bonus under the Plan in any other year.

(d) Reports. The appropriate officers of the Company shall cause to be filed any reports, returns or other information regarding the Plan as may be required by any applicable law.

(e) Governing Law. The validity, construction, and effect of the Plan and any rules and regulations or document hereunder, to the extent not otherwise governed by the Code or the laws of the United States, shall be determined in accordance with the laws of the State of Illinois, without giving effect to conflict of law principles.

(f) Nonexclusively of the Plan. The adoption of this Plan shall not be construed as creating any limitations on the power of the Company, Board or Committee to adopt such other compensation arrangements as any of them may deem desirable for any Participant or non-participating employee, including authorization of annual incentives under other plans and arrangements.

(g) Severability. The invalidity of any provision of the Plan or a document hereunder shall not be deemed to render the remainder of this Plan or such document invalid.

(h) Successors. The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise, and whether or not the corporate existence of the Company continues) to all or substantially all of the business and/or assets of the Company to expressly assume and agree to perform the Company's obligations under the Plan in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place; provided, however, that such successor may replace the Plan with a plan substantially equivalent in opportunity and achievability, as determined by a nationally recognized compensation consulting firm, and covering the persons who were Participants at the time of such succession. Any successor and the ultimate parent company of such successor shall in any event be subject to the requirements of this subsection 7(h) to the same extent as the Company. Subject to the forgoing, the Company may transfer and assign its rights and obligations hereunder.

(i) Tax Withholding. The Company and its Affiliates shall deduct from any payment of a Participant's AIP Bonus or from any other payment to the Participant, including wages, any Federal, state, local or provincial tax or charge that is then required to be deducted under applicable law with respect to the AIP Bonus or other payment or as determined by the Administrator to be appropriate under a program for withholding.

(j) Non-Transferability. An AIP Target Bonus Opportunity, any resulting AIP Bonus and any other right hereunder shall be non-assignable and non-transferable, and shall not be pledged, encumbered or hypothecated to or in favor of any party or subject to any lien, obligation or liability of the Participant to any party other than the Company or an Affiliate.

(k) Heirs and Successors. If any benefits deliverable to the Participant under the Plan have not been delivered at the time of the Participant's death, such benefits shall be delivered to the Participant's Designated Beneficiary, in accordance with the provisions of the Plan. The "Designated Beneficiary" shall be the beneficiary or beneficiaries designated by the Participant in a writing filed with the Company in such form and at such time as the Company shall require and in accordance with such rules and procedures established by the Company. If a deceased Participant fails to designate a beneficiary, or if the Designated Beneficiary does not survive the Participant, any rights that would have been exercisable by the Participant and any benefits distributable to the Participant shall be exercisable and distributed, as applicable, to the legal representative of the estate of the Participant.

(l) Recoupment. AIP Bonuses shall be subject to any then-applicable policy of the Company relating to forfeiture or recoupment of incentive awards to employees.

(m) Action by Company. Unless otherwise specified herein, any action required or permitted to be taken by the Company hereunder shall be by an officer of the Company or such other person authorized by the Board; provided, however, that in no event shall any officer be permitted to take any action on behalf of the Company with respect to himself or herself.

8. Amendment and Termination. The Board or the Committee may, at any time, amend, alter, suspend, discontinue or terminate this Plan, and such action shall not be subject to the approval of the Company's stockholders or Participants; provided, however, that, without the consent of the Participant, no such action shall materially impair the rights of a Participant with respect to an AIP Bonus that has been earned and vested in accordance with the terms of the Plan.

9. Section 409A. It is the intent of the Company that all AIP Bonuses under the Plan be exempt from or comply with Section 409A of the Code and all regulations, guidance and other interpretative guidance issued thereunder ("Section 409A"). The provisions of the Plan shall be construed and interpreted in accordance with the foregoing. Notwithstanding the foregoing, the Company shall not be required to assume any increased economic burden in connection therewith. Although the Company intends that the Plan be administered so as to be exempt from or in compliance with the requirements of Section 409A, neither the Company nor the Administrator represents or warrants that the Plan will comply with Section 409A or any other provision of federal, state, local or non-United States law. Neither the Company, its Affiliates nor their respective directors, officers, employees or advisers shall be liable to any Participant (or any other individual claiming a benefit through the Participant) for any tax, interest or penalties the Participant might owe as a result of participation in the Plan, and the Company and its Affiliates shall have no obligation to indemnify or otherwise protect any Participant from the obligation to pay any taxes or penalties pursuant to Section 409A. Without limiting the generality of the foregoing:

(a) Time and Form of Payment. Notwithstanding any other provision of the Plan to the contrary, if any payment or benefit hereunder is subject to Section 409A, and if such payment or benefit is to be paid or provided on account of the Participant's termination of employment (or other separation from service) and if the Participant is a specified employee (within the meaning of Code Section 409A(a)(2)(B)) such payment or benefit shall be delayed until the first day of the seventh month following the Participant's termination of employment (or separation from service). The determination as to whether a Participant has had a termination of employment (or separation from service) shall be made in accordance with the provisions of Section 409A and the guidance issued thereunder without application of any alternative levels of reductions of bona fide services permitted thereunder.

(b) Prohibition on Acceleration of Payments. Except as otherwise permitted under Section 409A and the guidance and Treasury regulations issued thereunder, the time or schedule of any payment or amount scheduled to be paid pursuant to the Plan shall not be accelerated.

Exhibit 10.30

March 31, 2021

Bradley S. Norton
Southfield, MI

Dear Brad,

I am pleased to inform you of your promotion to Executive Vice President, Business Operations Excellence effective May 14, 2021.

The key terms of this change are described below.

Position: Your position will be Executive Vice President, Business Operations Excellence reporting to Kevin Baird, EVP & Chief Operating Officer. Your work location will be Southfield, Michigan.

1. Base Salary: Your base salary will remain unchanged at $721,000 per year ($60,083.33 per month) less appropriate taxes and withholding, paid in accordance with Tenneco's normal payroll practices. Beginning in 2022 and each year thereafter, your base salary will be reviewed and, in turn, may be adjusted, subject to approval by the Compensation Committee of Tenneco Inc.'s Board of Directors.

2. Annual Incentive Compensation: Your target bonus opportunity under the AIP Plan will remain at 80% of your annual base salary (or $576,800). The payment of an annual incentive to you is subject to achievement of pre-defined performance goals for the Company, the approval by the Compensation Committee, as well as the terms of the AIP Plan (or successor plan).

3. Long-Term Incentive Compensation: You will continue to be eligible to participate in Tenneco's long-term incentive plan in a manner consistent with other Tenneco executives at your level.

   Each year the Compensation Committee will determine and approve the mix of long-term incentive (LTI) awards that will be granted to you and the aggregate target value of these awards. The final award size, performance conditions and other terms of this award will be approved by the Compensation Committee in February 2022 (for reference, this amount at your level is targeted at $1,100,000), at the same time the terms of these awards are established for other executives at the Company.

   Additionally, contingent upon shareholder approval of the 2021 Long-Term Incentive Plan, in recognition of this new role, you will be provided with a one-time grant of cash-settled restricted share units (RSUs) on May 14, 2021 valued at $720,000. The number of shares will be based on the 10-day VWAP leading up to and including this grant date of May 14, 2021. This one-time grant will vest 50% on May 14, 2022 and 50% May 14, 2023 in accordance with the award agreement for that grant.

4. Benefits: All other benefits remain unchanged.

5. Change-In-Control (CIC) Protection: You will continue to be eligible to participate in Tenneco's Change-In-Control Severance Benefit Plan for Key Executives (the "CIC Plan") at the Executive Group II level. Benefits under the CIC Plan are payable if you are discharged (either actually or constructively) within two years after a change-in-control. The CIC Plan generally provides a lump-sum payment equal to two times base salary and targeted annual bonus in effect immediately prior to the change-in-control for Executive Group II level participants. Continuing participation in certain insurance plans and outplacement services are also provided. All benefits are subject to the terms of the CIC Plan.

6. Severance (not related to CIC): You will continue to be eligible to participate in the Tenneco Automotive Operating Company Inc. Severance Benefit Plan, as amended (the "Severance Plan") as a member of Group 1. Benefits are payable under the Severance Plan if you are discharged by the company other than for Cause or if you terminate due to Constructive Termination (and, in any case, other than under circumstances which would entitle you to benefits under the CIC Plan). For Group 1 participants, the Severance Plan currently generally provides a one times annual base salary severance, payable in substantially equal installments in accordance with the normal payroll practices continuing during the severance period, and your targeted annual bonus for the year in which the termination occurs, subject to your execution of a general release and such other documents as the company may reasonably request. The Severance Plan also provides a medical coverage subsidy in certain cases and outplacement benefits. "Cause" and "Constructive Termination" have the meanings specified in the Severance Plan and all benefits under the Severance Plan are subject to the terms and conditions of the Severance Plan.

7. Stock Ownership Guidelines: You will continue to be subject to Tenneco's stock ownership guideline policy, requiring that you hold qualifying shares of Tenneco equal to three (3) times base salary, to be attained by the first month of January following five years since you became first subject to this new level of ownership requirement.

8. Insider Trading Policy: You will be subject to Tenneco's Insider Trading Policy, which, among other things, limits the timing and types of transactions you may make with respect to Tenneco securities and related derivatives.

9. Employment at Will: This offer does not constitute a contract of employment for any specific period of time but will create an employment at-will relationship that may be terminated at any time by you or the Company, with or without cause.

Brad, congratulations on your new role within Tenneco. We are excited for you to continue contributing and sharing in its future success. Please contact me if you have any questions or concerns.

Sincerely,

/s/ Kaled Awada

Kaled Awada
Senior Vice President and Chief Human Resources Officer
Tenneco Automotive Operating Company Inc., a Tenneco company

Exhibit 10.53

TENNECO INC.
CASH-SETTLED
PERFORMANCE SHARE UNIT AWARD AGREEMENT
([INSERT PERFORMANCE PERIOD RANGE] Performance Period)

_____
Participant Name

Effective as of [Grant Date] (the "Grant Date"), the Participant has been granted an Award under the Tenneco Inc. 2021 Long-Term Incentive Plan (the "Plan") in the form of cash-settled performance share units ("PSUs") with respect to the number of shares of Common Stock set forth herein ("Target PSUs"). The Award is subject to the following terms and conditions (sometimes referred to as this "Award Agreement") and the terms and conditions of the Plan as the same has been and may be amended from time to time. Terms used in this Award Agreement are defined elsewhere in this Award Agreement; provided, however, that, capitalized terms used herein and not otherwise defined shall have the meaning set forth in the Plan.

1. General Terms of the Award. The following terms and conditions apply to the Award:

Performance Period: January 1, [INSERT] to December 31, [INSERT]

Target PSUs: _____

Performance Targets: [X%] based on Cumulative EBITDA Performance
[X%] based on Net Leverage Ratio Performance

Appendix A of this Award Agreement, which is incorporated herein and forms a part of this Award Agreement, sets forth the manner in which the "Cumulative EBITDA Performance" and "Net Leverage Ratio Performance" are calculated for purposes of this Award Agreement for the Performance Period. Cumulative EBITDA and Net Leverage Ratio Performance are sometimes referred to herein individually as a "Performance Target" and collectively as the "Performance Targets".

2. Determination of Amount of Award. The number of Target PSUs that shall become vested pursuant to this Award shall be based on satisfaction of the Performance Targets and continuing employment as described in this Award Agreement. The number of Target PSUs that shall become vested pursuant to this Award based on the satisfaction of the Performance Targets shall be determined in accordance with the following:

EBITDA Target PSUs. For purposes hereof, the Participant's "EBITDA Target PSUs" are equal to [X]% of his or her total Target PSUs. The maximum number of EBITDA Target PSUs (expressed as a percentage, the "EBITDA Vesting Percentage") to which the Participant may become entitled under the Award (subject to the terms and conditions of the Plan and this Award Agreement) is based on Cumulative EBITDA (calculated as described in Appendix A) achieved for the Performance Period against the Cumulative EBITDA Target established by the Committee for the Performance Period based on the following chart:

Cumulative EBITDA Target	EBITDA Vesting Percentage
	200% (maximum)
	100% (target)
	50% (threshold)
	0%

(a)*Net Leverage Ratio Target PSUs*. For purposes hereof, the Participant's "Net Leverage Ratio Target PSUs" are equal to [X%] of his or her total Target PSUs. The maximum number of Net Leverage Ratio Target PSUs (expressed as a percentage, the "Net Leverage Ratio Vesting Percentage") to which the Participant may become entitled under the Award (subject to the terms and conditions of this Award Agreement) is based on the Net Leverage Ratio (calculated as described in Appendix A) achieved for the Performance Period against the Net Leverage Ratio Target established by the Committee for the Performance Period based on the following chart:

Net Leverage Ratio Target	Net Leverage Ratio Vesting Percentage
	200% (maximum)
	100% (target)
	50% (threshold)
	0%

(b)*Determination of Performance Targets and Number of Vested Target PSUs.* As soon as practicable following the end of the Performance Period, the Committee shall determine whether and the extent to which the Performance Targets have been satisfied for the Performance Period and the number of the Participant's Target PSUs that become vested based on such performance, subject to the terms and conditions of Paragraph 3 and the other terms and conditions of this Award Agreement.

(c)*Interpolation.* Interpolation shall be used to determine the EBITDA Vesting Percentage and Net Leverage Ratio Vesting Percentage, as applicable, in the event the Cumulative EBITDA Ratio Target and/or Net Leverage Ratio Target, as applicable, does not fall directly on one of the ranks or targets, as applicable, listed in the above charts.

3. Payment and Settlement of Award.

(a) *Unvested Award.* Except as otherwise specifically provided herein, the Participant shall have no right with respect to any payments or other amounts in respect of this Award until the Award is actually paid and settled on the Settlement Date (as defined below) and if the Participant's Termination Date occurs before the Settlement Date, this Award shall immediately expire and shall be forfeited and the Participant shall have no further rights with respect thereto.

(b) *Payment and Settlement Generally.* Except as otherwise provided in this Paragraph 3, the payment and settlement of this Award shall be made following the end of the Performance Period as of a date determined by the Committee and no later than two and one-half months after the end of the Performance Period (such date, the "Settlement Date"). Unless otherwise provided by the Committee in accordance with the Plan, (i) the Award will be paid and settled in cash in an amount equal to (A) the fair market value of a share of Common Stock (determined as of the applicable Settlement Date), multiplied by (B) the number of vested Target PSUs with respect to which payment and settlement is being made. Upon settlement of the Award, the Award shall be cancelled.

(c) *Termination for Death, Total Disability or Retirement.* Notwithstanding the provisions of subparagraphs 3(a) and (b), if the Participant's Termination Date occurs on or before the end of the Performance Period and on or after the first anniversary of the Grant Date:

(i) as a result of the Participant's death or Total Disability (as defined below), the Participant (or, in the event of his or her death, his or her beneficiary) shall be entitled to settlement of and payment with respect to that number of Target PSUs equal to the product of (A) 100% of the Target PSUs subject to this Award for the Performance Period, multiplied by (B) the Termination Multiplier (as defined below), which Target PSUs shall be paid and settled within sixty (60) days after the Participant's Termination Date (and such date shall be the "Settlement Date" for purposes of this Award Agreement), or

(ii) as a result of Retirement (as defined below), the Participant shall be entitled to payment and settlement of that number of Target PSUs equal to the product of (A) the number of Target PSUs to which the Participant would otherwise have been entitled pursuant to Paragraph 2 for the Performance Period had the Participant's Termination Date not occurred prior to the end of the Performance Period, multiplied by (B) the Termination Multiplier, which Target PSUs shall be paid and settled on the Settlement Date (as defined in subparagraph 3(b)).

If the Participant's Termination Date occurs after the end of the Performance Period and prior to the Settlement Date (as defined in subparagraph 3(b)) for the Performance Period as a result of the Participant's death, Total Disability or Retirement, the Participant (or, in the event of his or her death, his or her beneficiary) shall be entitled to payment and settlement on the Settlement Date (as defined in subparagraph 3(b)) of that number of Target PSUs to which the Participant would have been entitled for the Performance Period had his or her Termination Date not occurred prior to the Settlement Date.

(d) *Change in* Control. In the event of a Change in Control, the terms of Article 6 of the Plan shall control.

(e) *Special Vesting Rules for Special* Projects. If the Participant is assigned to a special project with a limited scope (as approved by the Committee and communicated to the Participant) and if the Participant's Termination Date occurs prior to the Settlement Date (as defined in subparagraph 3(b) as a result of termination by the Company for reasons other than for cause on or after the first anniversary of the Grant Date, the Participant shall be entitled to payment and settlement with respect to 100% of the Target PSUs subject to the Award for the Performance Period, which Target PSUs shall be paid and settled within sixty (60) days after the Participant's Termination Date (and such date shall be the "Settlement Date" for purposes of this Award Agreement).

(f) *Certain* Definitions. For purposes of this Award Agreement, the term:

(i) "Total Disability" means an event that results in the Participant (A) being unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, or (B) by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, receiving income replacement benefits for a period of not less than three (3) months under an accident and health plan covering employees of the Company or its Subsidiaries;

(ii) "Retirement" means the Participant's termination of employment with the Company and its Subsidiaries after the date on which the Participant attains (A) age sixty-five (65) or (B) age fifty-five (55) and has completed at least ten (10) years of service with the Company and its Subsidiaries and is not for any other reason, including voluntary resignation, termination by the Company or a Subsidiary for cause, which shall include the failure of the Participant to meet the obligations required by his or her position (as determined in the reasonable discretion of the Company), or termination by the Participant for good reason or constructive discharge; and

(iii) "Termination Multiplier" means a fraction, the numerator of which is the number of full months of the Participant's employment during the Performance Period prior to his or her Termination Date and the denominator of which is the number of full months in the Performance Period.

(g) *Effect of Contrary Terms in Employment Agreement.* In the event that the Company (or any of its Subsidiaries) is a party to a written employment agreement with the Participant, and if the employment agreement is inconsistent with the provisions of this Paragraph 3, the terms of the employment agreement will take precedence over the foregoing provisions, as applicable, to the extent not inconsistent with the terms of the Plan.

4. Withholding. All Awards and distributions under the Plan, including this Award and any distribution in respect of this Award, are subject to withholding of all applicable taxes, and the delivery of any cash or other benefits under the Plan or this Award is conditioned on satisfaction of the applicable tax withholding obligations. Such withholding obligations may be satisfied, at the Participant's election, (a) through cash payment by the Participant or (b) through the surrender of cash to which the Participant is otherwise entitled under the Plan (including this Award); provided, however, that any withholding obligations with respect to any Participant shall be satisfied by the method set forth in subparagraph 4(b) (through the withholding of cash otherwise payable pursuant to this Award) unless the Participant otherwise elects in accordance with this Paragraph 4.

5.Transferability. This Award is not transferable except as designated by the Participant by will or by the laws of descent and distribution or pursuant to a qualified domestic relations order.

6.Heirs and Successors. If any benefits deliverable to the Participant under this Award Agreement have not been delivered at the time of the Participant's death, such benefits shall be delivered to the Participant's Designated Beneficiary, in accordance with the provisions of this Award Agreement. The "Designated Beneficiary" shall be the beneficiary or beneficiaries designated by the Participant in a writing filed with the Company in such form and at such time as the Company shall require and in accordance with such rules and procedures established by the Company. If a deceased Participant fails to designate a beneficiary, or if the Designated Beneficiary does not survive the Participant, any rights that would have been exercisable by the Participant and any benefits distributable to the Participant shall be distributed to the legal representative of the estate of the Participant.

7.Administration. The authority to administer and interpret this Award and this Award Agreement shall be vested in the Committee, and the Committee shall have all powers with respect to this Award and this Award Agreement as it has with respect to the Plan. Any interpretation of this Award or this Award Agreement by the Committee and any decision made by it with respect to this Award or this Award Agreement is final and binding on all persons.

8.Addendum to Award Agreement. Notwithstanding any provision of this Award Agreement, if the Participant resides and/or works outside the United States of America (the "United States," "U.S." or "U.S.A."), this Award shall be subject to the special terms and conditions set forth in the addendum to this Award Agreement (the "Addendum") for the Participant's country. Further, if the Participant transfers residence and/or employment to another country reflected in the Addendum, the special terms and conditions for such country will apply to the Participant to the extent the Company determines, in its sole discretion, that the application of such special terms and conditions is necessary or advisable for legal or administrative reasons (or the Company may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer). The Addendum shall constitute part of this Award Agreement.

9.Adjustment of Award. The number of PSUs awarded pursuant to this Award may be adjusted by the Committee in accordance with the Plan to reflect certain corporate transactions which affect the number, type or value of the PSUs.

10.Notices. Any notice required or permitted under this Award Agreement shall be deemed given when delivered personally, or when deposited in a United States Post Office, postage prepaid, addressed, as appropriate, to the Committee or the Company at the Company's principal offices, to the Participant at the Participant's address as last known by the Company or, in any case, such other address as one party may designate in writing to the other.

11.Governing Law. The validity, construction and effect of this Award Agreement shall be determined in accordance with the laws of the State of Illinois and applicable federal law.

12.Amendments. The Board may, at any time, amend or terminate the Plan, and the Committee may amend this Award Agreement, provided that, except as provided in the Plan, no amendment or termination may, in the absence of written consent to the change by the affected Participant (or, if the Participant is not then living, the affected beneficiary), adversely affect the rights of any Participant or beneficiary under this Award Agreement prior to the date such amendment or termination is adopted by the Board or the Committee, as the case may be. Without limiting the generality of the foregoing or of Paragraph 16, the Committee may amend or terminate this Award at any time prior to the Settlement Date in its sole discretion to exercise downward discretion in the amount payable under this Award if the Committee determines that the payout yielded or that would be yielded by this Award for the Performance Period does not accurately reflect the applicable performance for the Performance Period.

13.Award Not Contract of Employment. The Award does not constitute a contract of employment or continued service, and the grant of the Award shall not give the Participant the right to be retained in the employ or service of the Company or any Subsidiary, nor any right or claim to any benefit under the Plan or this Award Agreement, unless such right or claim has specifically accrued under the terms of the Plan and this Award Agreement.

14.Unfunded Obligation. The Award shall not be funded, no trust, escrow or other provisions shall be established to secure payments and distributions due hereunder and this Award shall be regarded as unfunded for purposes of the Employee Retirement Income Security Act of 1974, as amended, and the Code. The Participant shall be treated as a general, unsecured creditor of the Company with respect to amounts payable hereunder and shall have no rights to any specific assets of the Company.

15.Severability. If a provision of this Award Agreement is held invalid by a court of competent jurisdiction, the remaining provisions shall nonetheless be enforceable according to their terms. Further, if any provision is held to be overbroad as written, that provision shall be amended to narrow its application to the extent necessary to make the provision enforceable according to applicable law and enforced as amended.

16.Plan Governs; Other Terms. The Award evidenced by this Award Agreement is granted pursuant to the Plan, and this Award and this Award Agreement are in all respects governed by the Plan and subject to all of the terms and provisions thereof, whether such terms and provisions are incorporated in this Award Agreement by reference or are expressly cited. Notwithstanding any other provision of the Plan or this Award Agreement, (a) all Awards are subject to the Company's recoupment or clawback policies as applicable and as in effect from time to time, (b) if the Committee determines, in its sole discretion, that the Participant at any time has willfully engaged in any activity that the Committee determines was or is harmful to the Company or any of its Subsidiaries, any unpaid portion of the Award shall be forfeited and the Participant shall have no rights with respect thereto, (c) the Committee may, in its sole and absolute discretion, adjust any Performance Target or the calculation thereof, (d) nothing in this Agreement supersedes or limits the Committee's authority under the Plan, and (e) this Award is subject to forfeiture if the Participant fails to accept the Award within the first twelve (12) months following the Grant Date in accordance with procedures established by the Company. The Participant may be required to agree to such additional terms and conditions as may be presented upon acceptance of the Award.

17.Counterparts. This Award Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original and all of which together shall constitute one and the same instrument.

18.Special Section 409A Rules. It is intended that any amounts payable under this Award Agreement shall either be exempt from or comply with section 409A of the Code. The provisions of this Award shall be construed and interpreted in accordance with section 409A of the Code. Notwithstanding any other provision of this Award Agreement to the contrary, if any payment or benefit hereunder is subject to section 409A of the Code, and if such payment or benefit is to be paid or provided on account of the Participant's termination of employment (or other separation from service):

(a)and if the Participant is a specified employee (within the meaning of section 409A(a)(2)(B) of the Code) and if any such payment or benefit is required to be made or provided prior to the first day of the seventh month following the Participant's separation from service or termination of employment, such payment or benefit shall be delayed until the first day of the seventh month following the Participant's termination of employment or separation from service; and

(b)the determination as to whether the Participant has had a termination of employment (or separation from service) shall be made in accordance with the provisions of section 409A of the Code and the guidance issued thereunder without application of any alternative levels of reductions of bona fide services permitted thereunder.

TENNECO INC.

_____

[TITLE]

ACCEPTED:

_____

Type or Print Legal Name (Date)

_____

Signature

_____

Social Security Number or National ID

_____

Street Address

_____

City/State/Zip/Country

EXHIBIT A

Definitions and Calculation Methodologies

Net Leverage Ratio.

"Net Leverage Ratio" means Net Debt as reported under GAAP (total GAAP debt less GAAP cash) divided by Adjusted EBITDA, all as determined for calendar year [INSERT].

"GAAP" means generally accepted accounting principles.

"Adjusted EBITDA" means the Company's Adjusted EBITDA as reported in the Company's earnings release. Generally, the Adjusted EBITDA for any calendar year will be equal to the reported EBITDA for the Company for such calendar year, adjusted, if material, for (i) gains or losses on sales of assets, (ii) restructuring charges, (iii) asset impairments, (iv) asset write-downs, (v) litigation or claim judgments or settlements, (vi) the effect of changes in tax laws, accounting principles or other laws or provisions affecting reported results, (vii) accruals for reorganization and restructuring programs, (viii) gains and losses that are treated as unusual in nature or that occur infrequently as defined under Accounting Standards Codification Topic 225 and/or in management's discussion and analysis of financial condition and results of operations for the Company appearing in the Company's annual report to stockholders for the applicable year, (ix) acquisitions or divestitures, and (x) other significant adjustments approved by the Committee.

In the event that the Net Leverage Ratio is to be determined based on a period other than a full calendar year, the Net Leverage Ratio shall be calculated as of (A) for the first year of the Performance Period, the most recently completed calendar quarter for which financial statements are available (and have been filed) using Adjusted EBITDA for the twelve (12) month period ending on such quarter and (B) for any other period, the most recently completed calendar year for which financial statements are available (and have been filed).

Cumulative EBITDA.

"Cumulative EBITDA" means the Company's Adjusted EBITDA (as defined above) for the entire Performance Period or portion of the Performance Period, as applicable, for the calculation for which Cumulative EBITDA is to be determined.

In the event that Cumulative EBITDA is to be determined based on a period other than a full calendar year, Cumulative EBITDA shall be calculated on a pro rata basis to reflect the portion of the Performance Period elapsed through the date of the applicable determination.

ADDENDUM TO
CASH-SETTLED PERFORMANCE SHARE UNIT AWARD AGREEMENT

This Addendum to the Award Agreement includes additional terms and conditions that govern the Award if the Participant resides and/or works outside of the United States. If the Participant transfers to another country reflected in this Addendum, the additional terms and conditions for such country (if any) will apply to the Participant to the extent the Company determines, in its sole discretion, that the application of such terms and conditions is necessary or advisable for legal or administrative reasons (or the Company may establish alternative terms as may be necessary or advisable to accommodate the Participant's transfer). Capitalized terms not defined in this Addendum but defined the Award Agreement or the Plan shall have the same meaning as in the Award Agreement or the Plan.

ALL NON-U.S. COUNTRIES

1. Withholding. For purposes of the Award Agreement the following provision shall replace Section 4 of the Award Agreement in its entirety.

4. Withholding. Regardless of any action the Company and/or its Subsidiaries take with respect to any or all income tax (including U.S. federal, state and local taxes and/or non-U.S. taxes), social contributions, payroll tax, payment on account or other tax-related withholding ("Tax-Related Items"), the Participant acknowledges that the ultimate liability for all Tax-Related Items legally due by the Participant is and remains the Participant's responsibility and that the Company and its Subsidiaries (a) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the PSUs, including the grant, vesting or settlement of the PSUs; and (b) do not commit to structure the terms of the grant or any aspect of the PSUs to reduce or eliminate the Participant's liability for Tax-Related Items.

Further, if the Participant becomes subject to taxation in more than one country between the Grant Date and the date of any relevant taxable or tax withholding event, as applicable, the Participant acknowledges that the Company and/or the Participant's employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one country.

Prior to the relevant taxable or tax withholding event, as applicable, if the Participant's country of residence (and country of employment, if different) requires withholding of Tax-Related Items, the Participant agrees to make adequate arrangements satisfactory to the Company and/or the Participant's employer to satisfy all Tax-Related Items. In this regard, the Participant authorizes the Company and/or the Participant's employer, or their respective agents, to satisfy the obligations with regard to all Tax-Related Items by one or a combination of the following: (i) through a cash payment by the Participant or (ii) through the surrender of cash to which the Participant is otherwise entitled under the Plan (including this Award); provided, however, that any withholding obligations with respect to any Participant shall be satisfied by the method set forth in subparagraph (ii) (through the withholding of cash otherwise payable pursuant to this Award) unless the Participant otherwise elects in accordance with this Paragraph 4.

The Company may withhold or account for Tax-Related Items by considering applicable statutory withholding rates (as determined by the Company in good faith and in its sole discretion) or other applicable withholding rates, including maximum applicable rates.

The Participant agrees to pay to the Company or the Participant's employer any amount of Tax-Related Items that the Company or the Participant's employer may be required to withhold or account for as a result of the Participant's participation in the Plan that cannot be satisfied by the means previously described. The Company may refuse to settle the PSUs until arrangements satisfactory to the Company have been made in connection with the Tax-Related Items.

2.Compliance with Local Law. The Participant agrees to repatriate all payments attributable to the cash acquired under the Plan if required by and in accordance with local foreign exchange rules and regulations in the Participant's country of residence (and country of employment, if different). In addition, the Participant also agrees to take any and all actions, and consent to any and all actions taken by the Company and its Subsidiaries, as may be required to allow the Company and its Subsidiaries to comply with local laws, rules and regulations in the Participant's country of residence (and country of employment, if different). Finally, the Participant agrees to take any and all actions as may be required to comply with his or her personal legal and tax obligations under local laws, rules and regulations in the Participant's country of residence (and country of employment, if different).

3.No Advice Regarding Grant. No employee of the Company or its Subsidiaries is permitted to advise the Participant regarding his or her participation in the Plan. The Participant is hereby advised to consult with his or her own personal tax, legal and financial advisors before taking any action related to the Plan.

4.Insider Trading; Market Abuse Laws. By participating in the Plan, the Participant agrees to comply with the Company's policy on insider trading (to the extent that it is applicable to the Participant). The Participant acknowledges that, depending on the Participant's or the Participant's broker's country of residence or where the shares of Common Stock are listed, the Participant may be subject to insider trading restrictions and/or market abuse laws that may affect the Participant's ability to accept, acquire, or dispose of rights linked to the value of shares of Common Stock during such times the Participant is considered to have "inside information" regarding the Company as defined in the laws or regulations in the Participant's country. The Participant could be prohibited from (a) disclosing the inside information to any third party (other than on a "need to know" basis), and (b) "tipping" third parties or causing them otherwise to buy or sell securities. Third parties include fellow employees. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under the Company insider trading policy. The Participant acknowledges that it is the Participant's responsibility to comply with any restrictions and is advised to speak to his or her personal advisor on this matter.

5.English Language. If the Participant is in a country where English is not an official language, the Participant acknowledges and agrees that it is the Participant's express intent that the Award Agreement, the Plan and all other documents, rules, procedures, forms, notices and legal proceedings entered into, given or instituted pursuant to the PSUs, be drawn up in English. Further, the Participant acknowledges that he or she is sufficiently proficient in English to understand the terms and conditions of this Award Agreement and any documents related to the Plan or has had the ability to consult with an advisor who is sufficiently proficient in the English language. If the Participant has received the Award Agreement, the Plan or any other rules, procedures, forms or documents related to the PSUs translated into a language other than English, and if the meaning of the translated version is different than the English version, the English version will control.

6.Not a Public Offering. Neither the grant of the PSUs under the Plan nor the settlement of the PSUs is intended to be a public offering of securities in the Participant's country of residence (and country of employment, if different). The Company has not submitted any registration statement, prospectus or other filings to the local securities authorities in jurisdictions outside of the United States unless otherwise required under local law.

7.Additional Requirements. The Company reserves the right to impose other requirements on the Award, any cash acquired pursuant to the Award and the Participant's participation in the Plan to the extent the Company determines, in its sole discretion, that such other requirements are necessary or advisable for legal or administrative reasons. Such requirements may include (but are not limited to) requiring the Participant to sign any agreements or undertakings that may be necessary to accomplish the foregoing.

8.Data Privacy. The Participant hereby explicitly and unambiguously consents to the collection, use, processing and transfer, in electronic or other form, of the Participant's personal data as described in this document by and among, as applicable, the Company, its affiliates and its Subsidiaries for the exclusive purpose of implementing, administering and managing the Participant's participation in the Plan.

The Participant understands that the Company (and/or his or her employer, if applicable) holds certain personal information about the Participant, including, but not limited to, the Participant's name, home address and telephone number, date of birth, email address, family size, marital status, sex, beneficiary information, emergency contacts, passport/visa information, age, language skills, driver's license information, nationality, C.V. (or resume), wage history, employment references, social insurance number, resident registration number or other identification number, salary, job title, employment or severance contract, current wage and benefit information, personal bank account number, tax-related information, plan or benefit enrollment forms and elections, award or benefit statements, any shares of Common Stock or directorships in the Company, details of all awards or any other entitlements to shares of Common Stock or cash awarded, canceled, purchased, vested, unvested or outstanding for purpose of managing and administering the Plan ("Data").

The Participant understands that Data may be transferred to any third parties assisting in the implementation, administration and management of the Plan including, but not limited to the affiliates of the Company and/or the third party administrator engaged by the Company to administer the Plan, or any successor. These third party recipients may be located in the Participant's country of residence (or employment, if different) or elsewhere, and the recipient's country may have different data privacy laws and protections than the Participant's country. The Participant understands that the Participant may request a list with the names and addresses of any potential recipients of the Data by contacting the Participant's human resources representative.

The Participant authorizes the recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, for the purposes of implementing, administering and managing the Participant's participation in the Plan, including any requisite transfer of such Data as may be required to a broker or other third party with whom the Participant may elect to deposit any cash acquired. The Participant understands that Data will be held only as long as is necessary to implement, administer and manage the Participant's participation in the Plan.

The Participant understands that he or she may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing the Participant's human resources representative. The Participant understands, however, that refusing or withdrawing the Participant's consent may affect his or her ability to participate in the Plan. For more information on the consequences of the Participant's refusal to consent or withdrawal of consent, the Participant understands that he or she may contact the Participant's human resources representative.

Finally, the Company may rely on a different legal basis for the processing and/or transfer of Data in the future and/or request that the Participant provide another data privacy consent. If applicable and upon request of the Company or the Participant's employer, the Participant agrees to provide an executed acknowledgment or data privacy consent form (or any other acknowledgments, agreements or consents) to the Company or the Participant's employer that the Company and/or the Participant's employer may deem necessary to obtain under the data privacy laws in the Participant's country, either now or in the future. The Participant understands that the Participant will not be able to participate in the Plan if he or she fails to execute any such acknowledgment, agreement or consent requested by the Company and/or the Participant's employer.

9. Nature of Grant. In accepting the grant of PSUs, the Participant acknowledges, understands and agrees that:

(a) the Plan is established voluntarily by the Company, it is discretionary in nature and it may be modified, suspended or terminated by the Committee at any time, as provided in the Plan and the Award Agreement;

(b) the grant of PSUs is exceptional, voluntary and occasional and does not create any contractual or other right to receive future grants of PSUs, or benefits in lieu of PSUs, even if PSUs have been granted in the past;

(c)all decisions with respect to future grants of PSUs or other grants, if any, will be at the sole discretion of the Company, including, but not limited to, the form and timing of an Award, the number of shares of Common Stock or cash subject to an Award, and the vesting provisions applicable to the Award;

(d)the grant of PSUs and the Participant's participation in the Plan shall not create a right to employment or be interpreted as forming an employment or service contract with the Company, the Participant's employer or any Subsidiary and shall not interfere with the ability of the Participant's employer to terminate his or her employment or service relationship;

(e)the Participant is voluntarily participating in the Plan;

(f)the PSUs and the cash payment in settlement of the PSUs are not intended to replace any pension rights or compensation;

(g)the PSUs, the cash payment in settlement of the PSUs and the value of same, are an extraordinary item of compensation outside the scope of the Participant's employment (and employment contract, if any) and is not part of normal or expected compensation for any purpose, including, without limitation, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, holiday pay, long-service awards, pension or retirement or welfare benefits or similar payments;

(h)the future value of the shares of Common Stock underlying the PSUs is unknown, indeterminable and cannot be predicted with certainty;

(i)unless otherwise determined by the Committee in its sole discretion, the Termination Date shall be effective from the date on which active employment or service ends and shall not be extended by any statutory or common law notice of termination period; the Committee or its delegate shall have the exclusive discretion to determine when the Termination Date occurs for purposes of this grant of PSUs;

(j)no claim or entitlement to compensation or damages shall arise from forfeiture of the PSUs resulting from the Participant ceasing to have rights under or to be entitled to PSUs, whether or not as a result of the Participant's termination of employment (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where the Participant is employed or the terms of the Participant's employment agreement, if any), and in consideration of the grant of the PSUs to which the Participant is otherwise not entitled, the Participant irrevocably agrees never to institute any claim against the Company, its Subsidiaries or his or her employer;

(k)the Participant acknowledges and agrees that neither the Company nor any Subsidiary shall be liable for any exchange rate fluctuation between the Participant's local currency and the United States Dollar that may affect the value of the PSUs or of any amounts due pursuant to the settlement of the PSUs.

10. Electronic Delivery and Acceptance. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan by electronic means. The Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through an online or electronic system established and maintained by the Company or a third party designated by the Company. The Participant also agrees that all online acknowledgements shall have the same force and effect as a written signature.

EUROPEAN UNION ("EU") AND THE UNITED KINGDOM

1. EU Age Discrimination Rules. If the Participant is resident or employed in a country that is a member of the EU or the United Kingdom, the grant of the Award and the Award Agreement are intended to comply with the age discrimination provisions of the EU Equal Treatment Framework Directive, as implemented into local law (the "Age Discrimination Rules"). To the extent that a court or tribunal of competent jurisdiction determines that any provision of the Award Agreement is invalid or unenforceable, in whole or in part, under the Age Discrimination Rules, the Company, in its sole discretion, shall have the power and authority to revise or strike such provision to the minimum extent necessary to make it valid and enforceable to the full extent permitted under local law.

ARGENTINA

1. Securities Law Information. Neither the PSUs nor the underlying shares of Common Stock are publicly offered or listed on any stock exchange in Argentina.

2. Nature of Grant. The following provision shall supplement Section 9 of the "All Non-US Countries" portion of this Addendum:

By accepting the Award, the Participant acknowledges and agrees that the grant of PSUs is made by the Company (not the Participant's employer) in its sole discretion and that the value of the PSUs or any cash acquired under the Plan shall not constitute salary or wages for any purpose under Argentine labor law, including, but not limited to, the calculation of (a) any labor benefits including, but not limited to, vacation pay, thirteenth salary, compensation in lieu of notice, annual bonus, disability, and leave of absence payments, etc., or (b) any termination or severance indemnities or similar payments.

If, notwithstanding the foregoing, any benefits under the Plan are considered salary or wages for any purpose under Argentine labor law, the Participant acknowledges and agrees that such benefits shall not accrue more frequently than on each Settlement Date.

AUSTRALIA

1. Compliance with Law. Notwithstanding anything else in the Award Agreement, the Participant will not be entitled to, and shall not claim, any benefit under the Plan if the provision of such benefit would give rise to a breach of Part 2D.2 of the Corporations Act 2001 (Cth) (the "Corporations Act"), any other provision of the Corporations Act, or any other applicable statute, rule or regulation which limits or restricts the giving of such benefits. Further, the Participant's employer is under no obligation to seek or obtain the approval of its shareholders in general meeting for the purpose of overcoming any such limitation or restriction.

2.Tax Information. The Plan is a program to which Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) (the "Act") applies (subject to the conditions in that Act).

BELGIUM

No country-specific provisions.

BRAZIL

1.Compliance with Law. By accepting the Award, the Participant agrees to comply with all applicable Brazilian laws and pay any and all applicable taxes associated with the vesting and settlement of the Award.

2.Nature of Grant. The following provision shall supplement Section 9 of the "All Non-US Countries" portion of this Addendum:

The Participant expressly agrees that (i) the benefits provided under the Award Agreement and the Plan are the result of commercial transactions unrelated to the Participant's employment; (ii) the Award Agreement and the Plan are not part of the terms and conditions of the Participant's employment; and (iii) the income from the Award, if any, is not part of the Participant's remuneration from employment.

CANADA

THE FOLLOWING PROVISIONS APPLY IF THE PARTICIPANT IS A RESIDENT OF QUEBEC

1.Use of English Language. If the Participant is a resident of Quebec, by accepting the Award, the Participant acknowledges and agrees that it is the Participant's express wish that the Award Agreement, this Addendum, as well as all other documents, notices and legal proceedings entered into, given or instituted pursuant to the Award, either directly or indirectly, be drawn up in English.

Utilisation de la langue anglaise. Si le Participant est un résident du Québec, en acceptant l'Attribution, le Participant reconnaît et convient avoir expressément exigé la rédaction en anglais de la Convention d'Attribution, de la présente Annexe, ainsi que de tous documents exécutés, avis donnés ou procédures judiciaires intentées relatifs, directement ou indirectement, à l'Attribution.

2.Data Privacy. The following provision shall supplement Section 8 of the "All Non-US Countries" portion of this Addendum:

The Participant hereby authorizes the Company and the Company's representatives to discuss with and obtain all relevant information from all personnel, professional or not, involved in the administration and operation of the Plan. The Participant further authorizes his or her employer, the Company, and any other Subsidiary to disclose and discuss the Plan with their respective advisors. The Participant further authorizes his or her employer, the Company, and any other Subsidiary to record such information and to keep such information in the Participant's employee file.

3.Forfeiture upon Termination. This provision supplements Section 9(i) of the "All Non-US Countries" portion of this Addendum:

For purposes of the PSUs, notwithstanding Section 9(i) of the Addendum, the Committee or its delegate may provide that the Participant's termination of employment will occur as of the date the Participant is no longer actually employed or otherwise rendering services to the Participant's employer (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment or other laws or otherwise rendering services or the terms of the Participant's employment or other service agreement, if any). In such case, unless otherwise provided in the Award Agreement or extended by the Company, the Participant's right to vest in the PSUs under the Plan, if any, will terminate as of such date (the "Termination Date"). The Termination Date will not be extended by any common law notice period. Notwithstanding the foregoing, however, if applicable employment standards legislation specifically requires continued entitlement to vesting during a statutory notice period, the Participant's right to vest in the PSUs under the Plan, if any will be allowed to continue for that minimum notice period but then immediately terminate effective as of the last day of the Participant's minimum statutory notice period. In the event the date the Participant is no longer providing actual service cannot be reasonable determined under the terms of the Award Agreement and/or the Plan, the Committee or its delegate shall have the exclusive discretion to determine when the Participant is no longer actively providing services for purposes of the PSUs (including whether the Participant may still be considered to be providing services while on a leave of absence). Unless the applicable employment standards legislation specifically requires, in the case of the Participant, the Participant will not earn or be entitled to any pro-rated vesting for that portion of time before the date on which his service relationship is terminated (as determined under this provision) nor will the Participant be entitled to any compensation for lost vesting.

CHINA

No country-specific provisions.

CZECHIA

No country-specific provisions.

FINLAND

No country-specific provisions.

FRANCE

1.Award Not French-Qualified. The PSUs are not granted under the French specific regime provided by Articles L. 225-197-1 and seq. or L. 22-10-59 and L. 22-10-60 of the French Commercial Code, as amended.

2.Use of English Language. By accepting the Award, the Participant acknowledges and agrees that it is the Participant's express wish that the Award Agreement, this Addendum, as well as all other documents, notices and legal proceedings entered into, given or instituted pursuant to the Award, either directly or indirectly, be drawn up in English.

Utilisation de la langue anglaise. En acceptant l'Attribution, le Participant reconnaît et convient avoir expressément exigé la rédaction en anglais de la Convention d'Attribution, de la présente Annexe, ainsi que de tous documents exécutés, avis donnés ou procédures judiciaires intentées relatifs, directement ou indirectement, à l'Attribution.

GERMANY

No country-specific provisions.

INDIA

No country-specific provisions.

ITALY

1.Plan Document Acknowledgement. In accepting the Award, the Participant acknowledges that the Participant has received a copy of the Plan and the Award Agreement and has reviewed the Plan and the Award Agreement, including this Addendum, in their entirety and fully understands and accepts all provisions of the Plan and the Award Agreement, including this Addendum. The Participant further acknowledges that the Participant has read and specifically and expressly approves the following Sections of the Award Agreement: (a) Section 1 (General Terms of the Award), (b) Section 2 (Determination of Amount of Award), (b) Section 3 (Payment and Settlement of Award), and (c) the terms and conditions of this Addendum.

JAPAN

No country-specific provisions.

KOREA

1.Data Privacy. By accepting the Award:

(a)The Participant agrees to the collection, use, processing and transfer of Data as described in Section 8 of the "All Non-U.S. Countries" portion of this Addendum; and

(b)The Participant agrees to the processing of the Participant's unique identifying information (resident registration number) as described in Section 8 of the "All Non-U.S. Countries" portion of this Addendum.

MEXICO

1.Nature of Grant. The following provision shall supplement Section 9 of the "All Non-US Countries" portion of this Addendum:

By participating in the Plan, the Participant acknowledges, understands and agrees that: (a) the right to acquire cash under the Plan is not related to the Participant's salary and other contractual benefits granted to the Participant by his or her employer ("Tenneco Mexico"); (b) any modification of the Plan or its termination shall not constitute a change or impairment to the terms and conditions of the Participant's employment; and (c) any benefit derived under the Plan is not a fringe benefit.

2.Policy Statement. The invitation the Company is making under the Plan is unilateral and discretionary and, therefore, the Company reserves the absolute right to amend it and discontinue it at any time without any liability.

The Company, with registered offices at 500 North Field Drive, Lake Forest, Illinois 60045 USA, is solely responsible for the administration of the Plan, and participation in the Plan and the acquisition of cash does not, in any way, establish an employment relationship between the Participant and the Company nor does it establish any rights between the Participant and Tenneco Mexico since the Participant is participating in the Plan on a wholly commercial basis.

3.Plan Document Acknowledgment. By accepting the terms of the Award Agreement, the Participant acknowledges that he or she has received a copy of the Plan, has reviewed the Plan and the Award Agreement in their entirety and fully understands and accepts all provisions of the Plan and the Award Agreement.

In addition, by accepting the terms of the Award Agreement, the Participant further acknowledges that he or she has read and specifically and expressly approves the provisions contained within Section 9 of the Addendum to the Award Agreement in which the following is clearly described and established: (a) participation in the Plan does not constitute an acquired right; (b) the Plan and participation in the Plan is offered by the Company on a wholly discretionary basis; (c) participation in the Plan is voluntary; and (d) the Company and its Subsidiary are not responsible for any decrease in the value of the shares of Common Stock underlying the Award.

Finally, the Participant hereby declares that he or she does not reserve any action or right to bring any claim against the Company for any compensation or damages resulting from a termination of employment and withdrawal from the Plan, and therefore, the Participant grants a full and broad release to Tenneco Mexico, the Company and its Subsidiaries with respect to any claim that may arise under the Plan in this respect.

1.Naturaleza del Otorgamiento. La siguiente disposición complementará la Sección 10 de la porción de este Apéndice llamada "Todas los Países no-Estadounidenses" ("All Non-US Countries," en Inglés):

Al participar en el Plan, el Participante reconoce, entiende y acepta de que: (a) el derecho de adquirir efectivo por medio del Plan no se relaciona con el salario del Participante o cualquier beneficios contractuales que se hayan sido otorgados al Participante por su empleador "Tenneco México"; (b) cualquier modificación al Plan o la terminación del mismo no constituirá un cambio o impedimento a los términos y condiciones del empleo del Participante; y (c) cualquier beneficio derivado por medio del Plan no es un beneficio adicional.

2.Declaración de Política. La invitación por parte de la Compañía bajo el Plan es unilateral y discrecional y, por lo tanto, la Compañía se reserva el derecho absoluto de modificar y discontinuar el Plan en cualquier momento sin ninguna responsabilidad.

La Compañía, con oficinas registradas ubicadas en 500 North Field Drive, Lake Forest, Illinois, 60045, EE.UU., es la única responsable por la administración del Plan, y la participación en el Plan y la adquisición de efectivo no establece, de forma alguna, una relación laboral entre el Participante y la Compañía, ni tampoco establece algún derecho entre el Participante y Tenneco México, ya que el Participante está participando en el Plan sobre una base completamente comercial.

3.Reconocimiento de los Documentos del Plan. Al aceptar los términos del Convenio del Premio, el Participante reconoce que ha recibido una copia del Plan, que ha revisado el Plan y el Convenio del Premio en su totalidad y que los ha entendido completamente y acepta todas las disposiciones contenidas en el Plan y en el Convenio del Premio.

Adicionalmente, al aceptar los términos del Convenio del Premio, el Participante reconoce además que ha leído y que aprueba específica y expresamente los términos y condiciones contenidos en la Sección 10 de este Apéndice del Convenio del Premio en lo cual se encuentra claramente descrito y establecido lo siguiente: (i) la participación en el Plan no constituye un derecho adquirido; (ii) el Plan y la participación en el mismo son ofrecidos por la Compañía de forma completamente discrecional; (iii) la participación en el Plan es voluntaria; y (iv) la Compañía y sus Subsidiarias no son responsables por cualquier disminución en el valor de las Acciones.

Finalmente, el Participante declara por medio del presente que no se reserva ninguna acción o derecho para interponer una demanda en contra de la Compañía por compensación o daño alguno que se podrían resultar de la terminación del empleo del Participante o su salida del Plan y, por lo tanto, el Participante otorga el más amplio finiquito al Tenneco México, la Compañía y sus Subsidiarias con respecto a cualquier demanda que pudiera originarse en virtud del Plan en este respecto.

NETHERLANDS

No country-specific provisions.

POLAND

No country-specific provisions.

PORTUGAL

1.Language Consent. The Participant hereby expressly declares that he or she has full knowledge of the English language and has read, understood and fully accepted and agreed with the terms and conditions established in the Plan and the Award Agreement.

Conhecimento da Lingua. O Participante declara expressamente que tem pleno conhecimento da língua inglesa e que leu, compreendeu e livremente aceitou e concordou com os termos e condições estabelecidas no Plano e no Acordo.

RUSSIA

1. Securities Law Information. These materials do not constitute advertising or an offering of securities in Russia.

SOUTH AFRICA

No country-specific provisions.

SPAIN

1. Securities Law Information. The PSUs do not qualify under Spanish regulations as securities. No "offer of securities to the public," as defined under Spanish law, has taken place or will take place in the Spanish territory. The Award Agreement (including this Addendum) has not been nor will it be registered with the *Comisión Nacional del Mercado de Valores*, and does not constitute a public offering prospectus.

2. Labor Law Acknowledgement. In accepting the Award, the Participant consents to participation in the Plan and acknowledges that the Participant has received a copy of the Plan. The Participant understands and agrees that except as provided for in Section 3 of the Award Agreement, the Participant's termination of employment for any reason (including for the reasons listed below) automatically will result in the loss of the Award that may have been granted to Participant and that has not vested as of the Termination Date.

In particular, the Participant understands and agrees that any unvested PSUs as of the Participant's Termination Date will be forfeited without entitlement to a cash payment or to any amount as indemnification in the event of a termination by reason of, including, but not limited to: resignation, disciplinary dismissal adjudged to be with cause, disciplinary dismissal adjudged or recognized to be without good cause (*i.e.*, subject to a "*despido improcedente*"), individual or collective layoff on objective grounds, whether adjudged to be with cause or adjudged or recognized to be without cause, material modification of the terms of employment under Article 41 of the Workers' Statute, relocation under Article 40 of the Workers' Statute, Article 50 of the Workers' Statute, unilateral withdrawal by the Service Recipient, and under Article 10.3 of Royal Decree 1382/1985.

Furthermore, the Participant understands that the Company has unilaterally, gratuitously and discretionally decided to grant the Award under the Plan to individuals who may be employees of the Company or its Subsidiaries. The decision is a limited decision that is entered into upon the express assumption and condition that any grant will not economically or otherwise bind the Company or its Subsidiaries on an ongoing basis other than to the extent set forth in the Award Agreement. Consequently, the Participant understands that the Award is granted on the assumption and condition that the Award and the cash paid upon settlement shall not become a part of any employment or contract (with the Company or the Participant's employer) and shall not be considered a mandatory benefit, salary for any purposes (including severance compensation) or any other right whatsoever. Furthermore, the Participant understands and freely accepts that there is no guarantee that any benefit whatsoever will arise from the Award, which is gratuitous and discretionary, since the future value of the underlying shares of Common Stock is unknown and unpredictable. In addition, the Participant understands that the grant of the Award would not be made to the Participant but for the assumptions and conditions referred to above; thus, the Participant acknowledges and freely accepts that should any or all of the assumptions be mistaken or should any of the conditions not be met for any reason, then any grant to Participant of the Award shall be null and void.

SWEDEN

1. Tax Withholding. The following provision supplements Section 1 of the "All Non-US Countries" portion of this Addendum:

Without limiting the Company's and the Participant's employer's authority to satisfy their withholding obligations for Tax-Related Items as set forth in Section 1 of the Award Agreement, in accepting the grant of PSUs, the Participant authorizes the Company and/or the Participant's employer's to withhold cash otherwise deliverable to the Participant upon vesting/settlement to satisfy Tax-Related Items, regardless of whether the Company and/or the Participant's employer's have an obligation to withhold such Tax-Related Items.

THAILAND

No country-specific provisions.

UNITED KINGDOM

1. Withholding. The following provision shall supplement Section 1 of the "All Non-US Countries" portion of this Addendum:

The Participant hereby agrees that he or she is liable for all Tax-Related Items and hereby covenants to pay all such Tax-Related Items, as and when requested by the Company or (if different) his or her employer or by Her Majesty Revenue & Customs ("HMRC") (or any other tax authority or any other relevant authority). The Participant also hereby agrees to indemnify and keep indemnified the Company and (if different) his or her employer against any Tax-Related Items that they are required to pay or withhold or have paid or will pay on the Participant's behalf to HMRC (or any other tax authority or any other relevant authority).

Notwithstanding the foregoing, if the Participant is a director or executive officer of the Company (within the meaning of Section 13(k) of the Securities Exchange Act of 1934), the Participant may not be able to indemnify the Company or the Participant's employer for the amount owed if the indemnification could be considered to be a loan. In this case, the amount which is owed and not collected or paid by the Participant within 90 days after the end of the UK tax year in which an event giving rise to the taxable event occurs may constitute an additional benefit to the Participant on which UK national insurance contributions may be payable. The Participant understands that he or she will be responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for paying to the Company or the Participant's employer (as appropriate), the amount of any employee national insurance contributions due on this additional benefit, which may also be recovered from the Participant by any of the means referred to in the Plan or this Award Agreement.

2. Exclusion of Claim. The Participant acknowledges and agrees that the Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from the Participant ceasing to have rights under or to be entitled to the Award, whether or not as a result of termination of employment (whether the termination is in breach of contract or otherwise), or from the loss or diminution in value of the Award. Upon the grant of the Award, the Participant will be deemed to have waived irrevocably any such entitlement.

EMPLOYEE NON-DISCLOSURE AND RESTRICTIVE COVENANTS AGREEMENT

This Employee Non-Disclosure and Restrictive Covenants Agreement (this "Agreement") is made and entered into by and between Tenneco Inc. ("Tenneco") and the undersigned individual ("Employee").

Recitals

A. Tenneco and its direct and indirect subsidiaries, including, without limitation, DRiV Incorporated, DRiV Automotive Inc., Tenneco Automotive Operating Company Inc., Pullman Company, Federal-Mogul Motorparts LLC, and Federal-Mogul Powertrain LLC, shall be referred to collectively and individually in this Agreement as the "Company."

B. Employee's entering into this Agreement is a condition of Tenneco making, and Employee accepting, an award under the Tenneco Inc. 2021 Long-Term Incentive Plan (the "Incentive Plan"), which award is being provided to Employee by Tenneco on behalf of itself and its affiliates as special consideration for agreeing to the terms and conditions of this Agreement.

C. Employee desires to be employed or continue to be employed by the Company. The Company desires to employ or continue to employ Employee provided it is afforded the protections of this Agreement. In the course of Employee's employment by the Company, Employee (i) will have access to certain trade secrets and confidential information of the Company and (ii) will have access to, and help develop and maintain goodwill with, the Company's customers and others with whom the Company has valuable business relationships.

D. To induce the Company to (i) employ or continue to employ Employee, (ii) provide Employee with the special consideration described in Section 1 below and (iii) give Employee access to certain of the Company's trade secrets, confidential information and customer relationships, Employee is willing to enter into this Agreement for the protection of the Company's trade secrets, confidential information and goodwill.

E. Unless otherwise defined in this Agreement, capitalized terms shall have the meanings given them in Section 16 below.

Agreement

In consideration of the foregoing recitals, the promises and covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and Employee agree as follows:

Section 1. Special Consideration. As special consideration and inducement for Employee to enter into to this Agreement, the Company is granting Employee an award under the Tenneco Inc. 20212 Long- Term Incentive Plan. Employee's acceptance of the award shall be deemed to be acceptance of Employee's agreement with the terms and conditions of this Agreement.

Section 2. Employment. The Company agrees to employ Employee, and Employee agrees to be employed with the Company. The Company and Employee acknowledge and agree that Employee's employment with the Company is on an at-will basis and, accordingly, Employee's employment may be terminated by either the Company or Employee at any time for any reason, with or without cause. This Agreement does not guarantee either the Company or Employee that the employment relationship will last for any specific duration of time. The Company and Employee agree that for purposes of this Agreement, any reference to Employee's employment or similar phrase means not only Employee's direct employment with the Company but also any engagement, either direct or through a third party, by which Employee is rendering services to the Company. Accordingly, "during Employee's employment" or similar phrases shall mean any period during which Employee provides services to the Company in any manner, including, without limitation, as an employee, leased employee or independent contractor.

Section 3. Best Efforts and Duty of Loyalty. During Employee's employment with the Company, Employee: (a) will devote Employee's full work time and best efforts to the furtherance of the business of the Company; (b) will not engage, directly or indirectly, in any activity, employment or business venture, whether or not for remuneration, that is competitive with the Company's business in any respect or make any preparations to engage in any competitive activities; and (c) will not take any action or make any omission that deprives the Company of any business opportunities or otherwise act in a manner that conflicts with, or is detrimental to, the best interest of the Company.

Section 4. Company Property. Employee acknowledges and agrees that all tangible materials, equipment, documents, copies of documents, data compilations (in whatever form), and electronically created or stored materials that Employee receives or makes in the course of employment with the Company (or with the use of the Company's time, materials, facilities or Confidential Information) are and shall remain the property of the Company, and Employee shall immediately deliver such property (including all copies, compilations, extracts and/or summaries) to the Company upon the Company's request or upon termination of Employee's employment for any reason.

Section 5. Prior Intellectual Property Agreement. Employee acknowledges and reaffirms all of Employee's obligations set forth in any prior written agreement between Employee and Company that relate to handling confidential information, treatment of inventions and works made by employee, and/or assignment and ownership of intellectual property (the "Existing Intellectual Property Agreement"). All obligations of Employee and all rights of the Company set forth in the Existing Intellectual Property Agreement shall continue in effect. This Agreement supplements the Existing Intellectual Property Agreement to the extent it creates any additional obligations of Employee or rights of the Company.

Section 6. Confidentiality and Non-Disclosure.

(a)During Employee's employment, the Company will provide Employee with access to certain Confidential Information. During Employee's employment with the Company and thereafter, Employee will not use or disclose to others any of the Confidential Information that Employee acquires, receives or creates at any time during Employee's employment with the Company, except (i) in the normal course of Employee's work for and on behalf of the Company, (ii) with the prior written consent of the Company, (iii) as required by law or judicial process, provided Employee, if allowed by applicable law, promptly notifies the Company in writing of any subpoena or other judicial request for disclosure involving confidential information or trade secrets, and cooperates with any effort by the Company to obtain a protective order preserving the confidentiality of the confidential information or trade secrets, or (iv) in connection with reporting possible violations of law or regulations to any

governmental agency or from making other disclosures protected under any applicable whistleblower laws. Employee agrees that the Company owns the Confidential Information and Employee shall have no rights, title or interest in any of the Confidential Information. Employee will not remove from the Company premises, or copy, duplicate or transmit, any materials containing any Confidential Information except as required in the ordinary course of performance of Employee's duties for the Company or as directed by the Company. Additionally, Employee will abide by the Company's policies protecting the Confidential Information, as such policies may exist from time to time. At the Company's request or upon termination of Employee's employment with the Company for any reason, Employee will immediately deliver to the Company any and all materials (including all copies and electronically stored data) containing any Confidential Information in Employee's possession, custody or control. Upon termination of Employee's employment with the Company for any reason, Employee will, if requested by the Company, provide the Company with a signed written statement disclosing whether Employee has returned to the Company all materials (including all copies and electronically stored data) containing any Confidential Information previously in Employee's possession, custody or control.

(b)Employee's confidentiality/non-disclosure obligations under this Agreement shall continue after the Employment Termination Date. With respect to any particular trade secret information, Employee's confidentiality/non-disclosure obligations shall continue as long as such information constitutes a trade secret under applicable law. With respect to any particular Confidential Information that does not constitute a trade secret or no longer constitutes a trade secret, Employee's confidentiality/non-disclosure obligations shall continue as long as such information remains confidential and shall not apply to information that becomes generally known to the public through no fault or action of Employee.

(c)*Defend Trade Secrets Act of 2016 Notice*: Notwithstanding anything to the contrary in this Agreement or any policy of the Company, Employee may not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made (i) in confidence to a federal, state or local government official, either directly or indirectly, or to an attorney if such disclosure is made solely for the purpose of reporting or investigating a suspected violation of law or for pursuing an anti-retaliation lawsuit; or (ii) in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal and Employee does not disclose the trade secret except pursuant to a court order. In the event a disclosure is made, and Employee files a lawsuit against the Company alleging that the Company retaliated against Employee because of his or her disclosure, Employee may disclose the relevant trade secret or confidential information to his or her attorney and may use the same in the court proceeding only if (A) Employee ensures that any court filing that includes the trade secret or confidential information at issue is made under seal; and (B) Employee does not otherwise disclose the trade secret or confidential information except as required by court order.

Section 7. Acknowledgement and Restrictive Covenants.

(a)During Employee's employment with the Company and for a period of six (6) months immediately after the Employment Termination Date, Employee will not within the Restricted Geographic Area engage in (including, without limitation, being employed by, working for, or rendering services to) any Competing Business in any Prohibited Capacity if in such Prohibited Capacity for the Competing Business, Employee is working on, involved in, assisting in, or managing with respect to, the design, development, manufacture, production, provision or sale of any Competing Product. For purposes of clarity, if the Competing Business has multiple divisions, lines or segments, some of which are not competitive with the business of the Company, nothing in this Section 7(a) will prohibit Employee from being employed by, working for or assisting only that division, line or segment of such Competing Business that is not competitive with the business of the Company, provided Employee is not involved in a Prohibited Capacity in the design, development, manufacture, production, provision or sale of any Competing Product.

(b)In addition to and without limiting Section 7(a), during Employee's employment with the Company and for a period of twenty-four (24) months immediately after the Employment Termination Date, Employee will not within the Restricted Geographic Area engage in (including, without limitation, being employed by, working for, or rendering services to) any Competing Business in any Prohibited Capacity if in such Prohibited Capacity for the Competing Business, Employee is working on, involved in, assisting in, or managing with respect to, the design, development, manufacture, production, provision or sale of any Restricted Competing Product. For purposes of clarity, if the Competing Business has multiple divisions, lines or segments, some of which are not competitive with the business of the Company, nothing in this Section 7(b) will prohibit Employee from being employed by, working for or assisting only that division, line or segment of such Competing Business that is not competitive with the business of the Company, provided Employee is not involved in a Prohibited Capacity in the design, development, manufacture, production, provision or sale of any Restricted Competing Product.

(c)In addition to and without limiting Section 7(a) and Section 7(b), during Employee's employment with the Company and for a period of twenty-four (24) months immediately after the Employment Termination Date, Employee will not provide, sell, market, attempt to provide, sell or market, or assist any Person in the provision, sale or marketing of any Restricted Competing Product to a Company Customer with respect to whom, at any time during the two (2) years immediately preceding the Employment Termination Date, Employee provided or assisted in the provision of any products or services on behalf of the Company, Employee had any business contact on behalf of the Company, Employee made or assisted any sales on behalf of the Company, Employee had any relationship, business development, sales, service or account responsibility (including, without limitation, any supervisory or managerial responsibility) on behalf of the Company, or Employee had access to, or gained knowledge of, any Confidential Information concerning the Company's business with such Company Customer, or otherwise solicit or communicate with any such Company Customers for the purpose of providing or selling any Restricted Competing Product.

(d)In addition to and without limiting Section 7(a), Section 7(b) and Section 7(c), during Employee's employment with the Company and for a period of twenty-four (24) months immediately after the Employment Termination Date, Employee will not provide, sell, market, attempt to provide, sell or market, or assist any Person in the provision, sale or marketing of, any Restricted Competing Product to any Company Customer located in the Restricted Geographic Area or otherwise solicit or communicate with any Company Customer located in the Restricted Geographic Area for the purpose of providing or selling any Restricted Competing Product.

(e)During Employee's employment with the Company and for a period of twenty-four (24) months immediately after the Employment Termination Date, Employee will not: (i) solicit, recruit, hire, employ, engage or attempt to hire, employ or engage any individual who is employed by (or otherwise engaged to render services for) the Company; (ii) assist any Person in the recruitment, hiring or engagement of any individual who is employed by (or otherwise engaged to render services for) the Company; (iii) urge, induce or seek to induce any individual to terminate his/her employment (or engagement) with the Company; or (iv) advise, suggest to or recommend to any Competing Business that it employ, engage or seek to employ or engage any individual who is employed by (or otherwise engaged to render services for) the Company.

(f)During Employee's employment with the Company and for a period of twenty-four (24) months immediately after the Employment Termination Date, Employee will not urge, induce or seek to induce any of the Company's customers, independent contractors, subcontractors, consultants, business partners, vendors, suppliers or any other Person with whom the Company has a business relationship to terminate their relationship with, or representation of, the Company or to cancel, withdraw, reduce, limit or in any manner modify any such person's or entity's business with, or representation of, the Company.

(g)During Employee's employment with the Company and for a period of twenty-four (24) months immediately after the Employment Termination Date, Employee will not make or publish any statement or comment that disparages or in any way injures the reputation and/or goodwill of the Company or any of its or their officers, directors or employees; provided, however, that nothing in this Section 7(g) is intended (i) to prohibit Employee from making any disclosures or statements in good faith in the normal course of performing Employee's job duties for the Company; (ii) to prohibit Employee from making any disclosures as may be required or compelled by law or legal process; (iii) to prohibit Employee from making any disclosures or providing any information to a governmental agency or entity, including without limitation in connection with a complaint by Employee against the Company or the investigation of any complaint against the Company; or (iv) to intimidate, coerce, deter, or persuade Employee with respect to providing, withholding or restricting any communications whatsoever to the extent prohibited under 18 U.S.C. § 1512 or under any similar provision of state or federal law.

(h)Employee acknowledges and agrees that restrictive covenants contained in this Agreement prohibit Employee from engaging in certain activities directly or indirectly, whether on Employee's own behalf or on behalf of any other Person.

(i)In the event Employee violates any restrictive covenant contained in Section 7 of this Agreement, the duration of all restrictive covenants shall automatically be extended by the length of time during which Employee was in violation of any such covenant, including, but not limited to, an extension equal to the time period from the date of Employee's first violation until an injunction is entered enjoining such violation.

Section 8. Severability; Reformation of Restrictions. Employee and the Company consider the restrictive covenants contained in Section 7 of this Agreement to be reasonable in all respects, including the temporal duration, scope of prohibited activities and geographic area, particularly given that: (a) the Company is engaged in a highly competitive business; (b) Employee serves in a key managerial role with the Company; (c) Employee will have access to a substantial amount of the Company's Confidential Information; and (d) Employee will be given access to and will help develop and maintain goodwill with the Company's customers. Employee further acknowledges and agrees that the restrictions set forth in this Agreement will not pose any undue hardship on Employee and that Employee will reasonably be able to earn a livelihood without violating any provision of this Agreement. The covenants, provisions and restrictions in this Agreement are separate and divisible to the maximum extent possible, and to the extent any covenant, provision or portion of this Agreement is determined to be unenforceable or invalid for any reason, the Company and Employee agree that such unenforceability or invalidity shall not affect the enforceability or validity of the remainder of this Agreement. If any particular covenant, provision or portion of this Agreement is determined to be unreasonable or unenforceable for any reason, including, without limitation, the time period, geographical area, and/or scope of activity covered by any restrictive covenant or non-disclosure provision, or portion thereof, the Company and Employee agree that such covenant, provision or portion shall automatically be deemed reformed such that the contested covenant, provision or portion will have the closest effect permitted by applicable law to the original form and shall be given effect and enforced as so reformed to whatever extent would be reasonable and enforceable under applicable law. The Company and Employee agree that any court interpreting any restrictive covenant or non-disclosure provision of this Agreement shall, if necessary, reform any such provision to make it enforceable under applicable law.

Section 9. Remedies. Employee agrees that a breach or threatened breach by Employee of this Agreement will give rise to irreparable injury to the Company and that money damages will not be adequate relief for such injury, and, accordingly, agrees that the Company shall be entitled to obtain equitable relief, including, but not limited to, temporary restraining orders, preliminary injunctions and/or permanent injunctions, without having to post any bond or other security, to restrain or prohibit such breach or threatened breach, in addition to any other remedies which may be available, including the recovery of monetary damages from Employee. In addition to all other relief to which it shall be entitled, the Company shall be entitled to recover from Employee all litigation costs and attorneys' fees incurred by the Company in any action or proceeding relating to this Agreement in which the Company prevails in any respect, including, but not limited to, any action or proceeding in which the Company seeks enforcement of this Agreement or seeks relief from Employee's violation of this Agreement.

Section 10. No Conflicting Agreements. Employee hereby represents and warrants to the Company that (a) Employee's employment by Company and the performance of Employee's employment duties will not constitute a breach of any agreements to which Employee is a party, including, without limitation, any employment or noncompetition agreement with any former employer, or violate any court order to which Employee is subject; (b) Employee does not possess or have access to any tangible or digital materials containing any confidential or proprietary information belonging to any third party; and (c) Employee has

not provided and will not provide to the Company, and will not use or disclose during the performance of Employee's services for the Company, any third party's documents, materials or information subject to any legally enforceable restrictions or obligations as to confidentiality or secrecy.

Section 11. Survival of Obligations. Employee acknowledges and agrees that certain of Employee's obligations under this Agreement, including, without limitation, Employee's intellectual property, non-disclosure and restrictive covenant obligations, shall survive the termination of Employee's employment with the Company for any reason, whether or not such termination is voluntary or involuntary or whether or not it is with or without cause. Employee further acknowledges and agrees that: (a) Employee's return of property, intellectual property, non-disclosure and restrictive covenants set forth in Section 4, Section 5, Section 6 and Section 7 of this Agreement shall be construed as independent covenants and that no breach of any contractual or legal duty by the Company shall be held sufficient to excuse or terminate Employee's covenants or obligations under Section 4, Section 5, Section 6 and Section 7 of this Agreement or preclude the Company from obtaining injunctive relief for Employee's violation or threatened violation of such covenants; and (b) the existence of any claim or cause of action by Employee against the Company, whether predicated on this Agreement or otherwise, shall not constitute a defense to the Company's enforcement of Employee's covenants and obligations under this Agreement, including without limitation under Section 4, Section 5, Section 6 and Section 7.

Section 12. Governing Law; Venue; Waiver of Jury Trial. This Agreement shall be interpreted and enforced in accordance with the laws of the State of Michigan, without giving effect to any choice- of-law or conflict-of-law principle that would cause the application of the substantive law of any jurisdiction other than Michigan. This Agreement is intended, among other things, to supplement all applicable statutes protecting trade secrets and the duties Employee owes to the Company under the common law, including, but not limited to, the duty of loyalty. The Company and Employee agree that any legal action arising out of or relating to this Agreement, Employee's employment with the Company or the termination of Employee's employment shall be commenced and maintained exclusively before any state or federal court having appropriate subject matter jurisdiction located in the State of Michigan; further, with respect to any such legal action, the Company and Employee hereby irrevocably consent and submit to the personal jurisdiction and venue of such courts located in the State of Michigan, and waive any right to challenge or otherwise object to personal jurisdiction or venue (including, without limitation, any objection based on inconvenient forum grounds) in any action commenced or maintained in such courts located in the State of Michigan; provided, however, the foregoing shall not affect any right a party may have to remove a legal action from state to federal court. EMPLOYEE AND THE COMPANY EACH HEREBY VOLUNTARILY AND IRREVOCABLY WAIVES TRIAL BY JURY IN ANY LEGAL ACTION ARISING OUT OF OR RELATING TO THIS AGREEMENT OR EMPLOYEE'S EMPLOYMENT WITH THE COMPANY.

Section 13. Successors and Assigns. The Company shall have the right to assign this Agreement. This Agreement shall inure to the benefit of, and may be enforced by, any and all successors and assigns of the Company, including, without limitation, by asset assignment, stock sale, merger, consolidation or other corporate reorganization, and shall be binding on Employee, his/her executors, administrators, personal representatives or other successors in interest. Employee shall not have the right to assign this Agreement.

Section 14. Entire Agreement; Modification. This Agreement constitutes the entire agreement of the parties with respect to the subjects specifically addressed herein, and supersedes any prior agreements, understandings, or representations, oral or written, on the subjects addressed herein. Except for reformation by a court as provided in Section 8, this Agreement may not be amended, supplemented, or modified except by a written document signed by both Employee and a duly authorized officer of the Company.

Section 15. No Waiver. The failure of the Company to insist in any one or more instances upon such performance of any of the provisions of this Agreement or to pursue its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights.

Section 16. Definitions. In addition to the terms defined elsewhere in this Agreement, the following terms shall have the following meanings for purposes of this Agreement.

(a)"Company Customer" means: (i) any Person to whom the Company is selling or providing any products or services as of the Employment Termination Date; (ii) any Person to whom, as of the Employment Termination Date, the Company has contracted or otherwise entered into an arrangement to provide any product or service; and/or (iii) any Person to whom the Company provided or sold any products or services at any time during the one (1) year period immediately preceding the Employment Termination Date.

(b)"Competing Business" means any Person that develops, manufactures, produces, sells, distributes or provides any Competing Product and is competitive with the business of the Company.

(c)"Competing Product" means: (i) any product or service that is (or once developed would be) competitive with any of the types of products or services manufactured, produced, offered, sold or provided by the Company during Employee's employment with the Company and as of the Employment Termination Date; and/or (ii) any product or service that is (or once developed would be) competitive with any of the types of products or services that the Company had under development during Employee's employment with the Company and as of the Employment Termination Date.

(d)"Confidential Information" means any and all of the Company's trade secrets, confidential and proprietary information and all other non-public information and data of or about the Company and its business, including, without limitation, business processes, manufacturing processes, lists of customers, information pertaining to customers, marketing plans and strategies, information pertaining to suppliers, information pertaining to prospective suppliers, pricing information, engineering and technical information, software codes, cost information, data compilations, research and development information, product designs, business plans, financial information, personnel information, information received from third parties that the Company has agreed or is otherwise obligated to keep confidential, and information about prospective customers or prospective products and services, whether or not reduced to writing or other tangible medium of expression, including, without limitation, work product created by Employee in rendering services for the Company.

(e)"Employment Termination Date" means Employee's last day of employment (or engagement) with the Company regardless of whether such employment (or engagement) termination is voluntary or involuntary or with or without cause.

(f)"Person" means any individual or entity (including without limitation a corporation, partnership, limited liability company, trust, joint venture, association, or governmental entity or agency).

(g)"Prohibited Capacity" means: (i) the same or similar capacity or function to that in which Employee worked for the Company at any time during the two (2) year period immediately preceding the Employment Termination Date; (ii) any officer, director, executive or managerial capacity or function; (iii) any product development or improvement capacity or function; (iv) any research and development capacity or function; (v) any sales or sales management capacity or function; (vi) any business development capacity or function;

(vii) any business advisory or consulting capacity or function; (viii) any ownership capacity (except Employee may own as a passive investment up to 2% of any class of securities that is listed or admitted to trading on a national securities exchange or otherwise publicly traded); and/or (ix) any capacity or function in which Employee likely would inevitably use or disclose the Company's trade secrets and/or Confidential Information.

(h)"Restricted Competing Product" means: (i) any product or service that is (or once developed would be) competitive with any of the types of products or services manufactured, produced, offered, sold or provided by the division, business line, business unit or business segment of the Company with respect to which Employee is assigned and performs services or has responsibility for managing, in whole or in part, at any time during the two (2) year period immediately preceding the Employment Termination Date; (ii) any product or service that is (or once developed would be) competitive with any of the types of products or services manufactured, produced, offered, sold or provided by the Company and with respect to which, at any time during the two (2) year period immediately preceding the Employment Termination Date, Employee had any responsibility for (including any managerial or other oversight responsibility) the development, manufacture, production, sales or provision, or acquired any Confidential Information; and/or (iii) any product or service that is (or once developed would be) competitive with any of the types of products or services that the Company had under development as of the Employment Termination Date and with respect to which, at any time during Employee's employment with the Company, Employee had any responsibility for (including any managerial or other oversight responsibility) the development, or acquired any Confidential Information.

(i)"Restricted Geographic Area" means: (i) the United States of America; (ii) each country in which the Company is conducting business, selling products or offering products for sale during Employee's employment with the Company and as of the Employment Termination Date; (iii) each country in which Employee is engaged in any work, sales, marketing, service or other activities on behalf of the Company (or with respect to which Employee is responsible for managing or overseeing) as of the Employment Termination Date or at any time during the two (2) year period immediately preceding the Employment Termination Date; and/or (iv) the area comprising the sales, service, distribution or operational territory(ies) for which Employee has any sales, sales management, operational or any other managerial responsibility on behalf of the Company as of the Employment

Termination Date or at any time during the two (2) year period immediately preceding the Employment Termination Date.

Section 17. Voluntary Agreement; Construction; Counterparts. Employee acknowledges:

(a) Employee has been given reasonable time to consider this Agreement; (b) Employee has been given the opportunity to consult with Employee's own attorney or other advisors if Employee so chooses; and (c) Employee is entering into this Agreement knowingly and voluntarily intending to be legally bound. The language of this Agreement shall in all cases be construed as a whole, according to its fair meaning, and not strictly for or against either party. This Agreement may be executed in one or more counterparts (or upon separate signature pages bound together into one or more counterparts), all of which taken together shall constitute one agreement. Signatures made or transmitted by facsimile or electronic means (including, without limitation, .pdf format, DocuSign, or any electronic signature complying with the U.S. federal ESIGN Act of 2000) are acceptable the same as original signatures for execution of this Agreement.

IN WITNESS WHEREOF, the Company and Employee have executed this Agreement as of the date upon which the Employee accepted the Award Agreement under the Incentive Plan.

COMPANY EMPLOYEE

TENNECO INC.

/s/ Kaled Awada Signed Electronically

Name: Kaled Awada Employee

Title: Executive Vice President and

Chief Human Resources Officer Acceptance Date

Exhibit 10.54

TENNECO INC.
STOCK-SETTLED
PERFORMANCE SHARE UNIT AWARD AGREEMENT
([INSERT PERFORMANCE PERIOD RANGE] Performance Period)

_____
Participant Name

Effective as of [Grant Date] (the "Grant Date"), the Participant has been granted an Award under the Tenneco Inc. 2021 Long-Term Incentive Plan (the "Plan") in the form of stock -settled performance share units ("PSUs") with respect to the number of shares of Common Stock set forth herein ("Target PSUs"). The Award is subject to the following terms and conditions (sometimes referred to as this "Award Agreement") and the terms and conditions of the Plan as the same has been and may be amended from time to time. Terms used in this Award Agreement are defined elsewhere in this Award Agreement; provided, however, that, capitalized terms used herein and not otherwise defined shall have the meaning set forth in the Plan.

1. General Terms of the Award. The following terms and conditions apply to the Award:

Performance Period: January 1, [INSERT] to December 31, [INSERT]

Target PSUs: _____

Performance Targets: [X%] based on Cumulative EBITDA Performance
[X%] based on Net Leverage Ratio Performance

Appendix A of this Award Agreement, which is incorporated herein and forms a part of this Award Agreement, sets forth the manner in which the "Cumulative EBITDA Performance" and "Net Leverage Ratio Performance" are calculated for purposes of this Award Agreement for the Performance Period. Cumulative EBITDA and Net Leverage Ratio Performance are sometimes referred to herein individually as a "Performance Target" and collectively as the "Performance Targets".

2. Determination of Amount of Award. The number of Target PSUs that shall become vested pursuant to this Award shall be based on satisfaction of the Performance Targets and continuing employment as described in this Award Agreement. The number of Target PSUs that shall become vested pursuant to this Award based on the satisfaction of the Performance Targets shall be determined in accordance with the following:

(a) *EBITDA Target PSUs*. For purposes hereof, the Participant's "EBITDA Target PSUs" are equal to [X]% of his or her total Target PSUs. The maximum number of EBITDA Target PSUs (expressed as a percentage, the "EBITDA Vesting Percentage") to which the Participant may become entitled under the Award (subject to the terms and conditions of the Plan and this Award Agreement) is based on Cumulative EBITDA (calculated as described in Appendix A) achieved for the Performance Period against the Cumulative EBITDA Target established by the Committee for the Performance Period based on the following chart:

Cumulative EBITDA Target	EBITDA Vesting Percentage
	200% (maximum)
	100% (target)
	50% (threshold)
	0%

(b)*Net Leverage Ratio Target PSUs*. For purposes hereof, the Participant's "Net Leverage Ratio Target PSUs" are equal to [X%] of his or her total Target PSUs. The maximum number of Net Leverage Ratio Target PSUs (expressed as a percentage, the "Net Leverage Ratio Vesting Percentage") to which the Participant may become entitled under the Award (subject to the terms and conditions of this Award Agreement) is based on the Net Leverage Ratio (calculated as described in Appendix A) achieved for the Performance Period against the Net Leverage Ratio Target established by the Committee for the Performance Period based on the following chart:

Net Leverage Ratio Target	Net Leverage Ratio Vesting Percentage
	200% (maximum)
	100% (target)
	50% (threshold)
	0%

(c)*Determination of Performance Targets and Number of Vested Target PSUs.* As soon as practicable following the end of the Performance Period, the Committee shall determine whether and the extent to which the Performance Targets have been satisfied for the Performance Period and the number of the Participant's Target PSUs that become vested based on such performance, subject to the terms and conditions of Paragraph 3 and the other terms and conditions of this Award Agreement.

(d)*Interpolation.* Interpolation shall be used to determine the EBITDA Vesting Percentage and Net Leverage Ratio Vesting Percentage, as applicable, in the event the Cumulative EBITDA Ratio Target and/or Net Leverage Ratio Target, as applicable, does not fall directly on one of the ranks or targets, as applicable, listed in the above charts.

3. Payment and Settlement of Award.

(a) *Unvested Award.* Except as otherwise specifically provided herein, the Participant shall have no right with respect to any payments or other amounts in respect of this Award until the Award is actually paid and settled on the Settlement Date (as defined below) and if the Participant's Termination Date occurs before the Settlement Date, this Award shall immediately expire and shall be forfeited and the Participant shall have no further rights with respect thereto.

(b) *Payment and Settlement Generally.* Except as otherwise provided in this Paragraph 3, the payment and settlement of this Award shall be made following the end of the Performance Period as of a date determined by the Committee and no later than two and one-half months after the end of the Performance Period (such date, the "Settlement Date"). Unless otherwise provided by the Committee in accordance with the Plan, settlement shall be made in the form of shares of Common Stock with one share of Common Stock being issued in settlement of each vested Target PSU, plus an amount of cash equal to the fair market value of any fractional vested Target PSUs being settled as of such Settlement Date. Upon settlement of the Award, the Award shall be cancelled.

(c) *Termination for Death, Total Disability or Retirement.* Notwithstanding the provisions of subparagraphs 3(a) and (b), if the Participant's Termination Date occurs on or before the end of the Performance Period and on or after the first anniversary of the Grant Date:

(i) as a result of the Participant's death or Total Disability (as defined below), the Participant (or, in the event of his or her death, his or her beneficiary) shall be entitled to settlement of and payment with respect to that number of Target PSUs equal to the product of (A) 100% of the Target PSUs subject to this Award for the Performance Period, multiplied by (B) the Termination Multiplier (as defined below), which Target PSUs shall be paid and settled within sixty (60) days after the Participant's Termination Date (and such date shall be the "Settlement Date" for purposes of this Award Agreement), or

(ii) as a result of Retirement (as defined below), the Participant shall be entitled to payment and settlement of that number of Target PSUs equal to the product of (A) the number of Target PSUs to which the Participant would otherwise have been entitled pursuant to Paragraph 2 for the Performance Period had the Participant's Termination Date not occurred prior to the end of the Performance Period, multiplied by (B) the Termination Multiplier, which Target PSUs shall be paid and settled on the Settlement Date (as defined in subparagraph 3(b)).

If the Participant's Termination Date occurs after the end of the Performance Period and prior to the Settlement Date (as defined in subparagraph 3(b)) for the Performance Period as a result of the Participant's death, Total Disability or Retirement, the Participant (or, in the event of his or her death, his or her beneficiary) shall be entitled to payment and settlement on the Settlement Date (as defined in subparagraph 3(b)) of that number of Target PSUs to which the Participant would have been entitled for the Performance Period had his or her Termination Date not occurred prior to the Settlement Date.

(d) *Change in Control.* In the event of a Change in Control, the terms of Article 6 of the Plan shall control.

(e) *Special Vesting Rules for Special* Projects. If the Participant is assigned to a special project with a limited scope (as approved by the Committee and communicated to the Participant) and if the Participant's Termination Date occurs prior to the Settlement Date (as defined in subparagraph 3(b) as a result of termination by the Company for reasons other than for cause on or after the first anniversary of the Grant Date, the Participant shall be entitled to payment and settlement with respect to 100% of the Target PSUs subject to the Award for the Performance Period, which Target PSUs shall be paid and settled within sixty (60) days after the Participant's Termination Date (and such date shall be the "Settlement Date" for purposes of this Award Agreement).

(f) *Certain Definitions.* For purposes of this Award Agreement, the term:

(i) "Total Disability" means an event that results in the Participant (A) being unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, or (B) by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, receiving income replacement benefits for a period of not less than three (3) months under an accident and health plan covering employees of the Company or its Subsidiaries;

(ii) "Retirement" means the Participant's termination of employment with the Company and its Subsidiaries after the date on which the Participant attains (A) age sixty-five (65) or (B) age fifty-five (55) and has completed at least ten (10) years of service with the Company and its Subsidiaries and is not for any other reason, including voluntary resignation, termination by the Company or a Subsidiary for cause, which shall include the failure of the Participant to meet the obligations required by his or her position (as determined in the reasonable discretion of the Company), or termination by the Participant for good reason or constructive discharge; and

(iii) "Termination Multiplier" means a fraction, the numerator of which is the number of full months of the Participant's employment during the Performance Period prior to his or her Termination Date and the denominator of which is the number of full months in the Performance Period.

(g) *Effect of Contrary Terms in Employment Agreement.* In the event that the Company (or any of its Subsidiaries) is a party to a written employment agreement with the Participant, and if the employment agreement is inconsistent with the provisions of this Paragraph 3, the terms of the employment agreement will take precedence over the foregoing provisions, as applicable, to the extent not inconsistent with the terms of the Plan.

4.Withholding. All Awards and distributions under the Plan, including this Award and any distribution in respect of this Award, are subject to withholding of all applicable taxes, and the delivery of any cash or other benefits under the Plan or this Award is conditioned on satisfaction of the applicable tax withholding obligations. Such withholding obligations may be satisfied, at the Participant's election, (a) through cash payment by the Participant or (b) through the surrender of cash or shares of Common Stock to which the Participant is otherwise entitled under the Plan (including this Award); provided, however, that any withholding obligations with respect to any Participant shall be satisfied by the method set forth in subparagraph 4(b) (through the withholding of shares otherwise payable pursuant to this Award) unless the Participant otherwise elects in accordance with this Paragraph 4. The amount withheld in the form of shares of Common Stock under this Paragraph 4 may not exceed the minimum statutory withholding obligation (based on the minimum statutory withholding rates for Federal and state purposes, including, without limitation, payroll taxes) unless otherwise elected by the Participant, in no event shall the Participant be permitted to elect less than the minimum statutory withholding obligation, and in no event shall the Participant be permitted to elect to have an amount withheld in the form of shares of Common Stock pursuant to this Paragraph 4 that exceeds the maximum individual tax rate for the employee in applicable jurisdictions.

5.Transferability. This Award is not transferable except as designated by the Participant by will or by the laws of descent and distribution or pursuant to a qualified domestic relations order.

6.Heirs and Successors. If any benefits deliverable to the Participant under this Award Agreement have not been delivered at the time of the Participant's death, such benefits shall be delivered to the Participant's Designated Beneficiary, in accordance with the provisions of this Award Agreement. The "Designated Beneficiary" shall be the beneficiary or beneficiaries designated by the Participant in a writing filed with the Company in such form and at such time as the Company shall require and in accordance with such rules and procedures established by the Company. If a deceased Participant fails to designate a beneficiary, or if the Designated Beneficiary does not survive the Participant, any rights that would have been exercisable by the Participant and any benefits distributable to the Participant shall be distributed to the legal representative of the estate of the Participant.

7.Administration. The authority to administer and interpret this Award and this Award Agreement shall be vested in the Committee, and the Committee shall have all powers with respect to this Award and this Award Agreement as it has with respect to the Plan. Any interpretation of this Award or this Award Agreement by the Committee and any decision made by it with respect to this Award or this Award Agreement is final and binding on all persons.

8.Addendum to Award Agreement. Notwithstanding any provision of this Award Agreement, if the Participant resides and/or works outside the United States of America (the "United States," "U.S." or "U.S.A."), this Award shall be subject to the special terms and conditions set forth in the addendum to this Award Agreement (the "Addendum") for the Participant's country. Further, if the Participant transfers residence and/or employment to another country reflected in the Addendum, the special terms and conditions for such country will apply to the Participant to the extent the Company determines, in its sole discretion, that the application of such special terms and conditions is necessary or advisable for legal or administrative reasons (or the Company may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer). The Addendum shall constitute part of this Award Agreement.

9.Adjustment of Award. The number of PSUs awarded pursuant to this Award may be adjusted by the Committee in accordance with the Plan to reflect certain corporate transactions which affect the number, type or value of the PSUs.

10.Notices. Any notice required or permitted under this Award Agreement shall be deemed given when delivered personally, or when deposited in a United States Post Office, postage prepaid, addressed, as appropriate, to the Committee or the Company at the Company's principal offices, to the Participant at the Participant's address as last known by the Company or, in any case, such other address as one party may designate in writing to the other.

11.Governing Law. The validity, construction and effect of this Award Agreement shall be determined in accordance with the laws of the State of Illinois and applicable federal law.

12.Amendments. The Board may, at any time, amend or terminate the Plan, and the Committee may amend this Award Agreement, provided that, except as provided in the Plan, no amendment or termination may, in the absence of written consent to the change by the affected Participant (or, if the Participant is not then living, the affected beneficiary), adversely affect the rights of any Participant or beneficiary under this Award Agreement prior to the date such amendment or termination is adopted by the Board or the Committee, as the case may be. Without limiting the generality of the foregoing or of Paragraph 16, the Committee may amend or terminate this Award at any time prior to the Settlement Date in its sole discretion to exercise downward discretion in the amount payable under this Award if the Committee determines that the payout yielded or that would be yielded by this Award for the Performance Period does not accurately reflect the applicable performance for the Performance Period.

13.Award Not Contract of Employment. The Award does not constitute a contract of employment or continued service, and the grant of the Award shall not give the Participant the right to be retained in the employ or service of the Company or any Subsidiary, nor any right or claim to any benefit under the Plan or this Award Agreement, unless such right or claim has specifically accrued under the terms of the Plan and this Award Agreement.

14.Unfunded Obligation. The Award shall not be funded, no trust, escrow or other provisions shall be established to secure payments and distributions due hereunder and this Award shall be regarded as unfunded for purposes of the Employee Retirement Income Security Act of 1974, as amended, and the Code. The Participant shall be treated as a general, unsecured creditor of the Company with respect to amounts payable hereunder and shall have no rights to any specific assets of the Company.

15.Severability. If a provision of this Award Agreement is held invalid by a court of competent jurisdiction, the remaining provisions shall nonetheless be enforceable according to their terms. Further, if any provision is held to be overbroad as written, that provision shall be amended to narrow its application to the extent necessary to make the provision enforceable according to applicable law and enforced as amended.

16.Plan Governs; Other Terms. The Award evidenced by this Award Agreement is granted pursuant to the Plan, and this Award and this Award Agreement are in all respects governed by the Plan and subject to all of the terms and provisions thereof, whether such terms and provisions are incorporated in this Award Agreement by reference or are expressly cited. Notwithstanding any other provision of the Plan or this Award Agreement, (a) all Awards are subject to the Company's recoupment or clawback policies as applicable and as in effect from time to time, (b) if the Committee determines, in its sole discretion, that the Participant at any time has willfully engaged in any activity that the Committee determines was or is harmful to the Company or any of its Subsidiaries, any unpaid portion of the Award shall be forfeited and the Participant shall have no rights with respect thereto, (c) the Committee may, in its sole and absolute discretion, adjust any Performance Target or the calculation thereof, (d) nothing in this Agreement supersedes or limits the Committee's authority under the Plan, and (e) this Award is subject to forfeiture if the Participant fails to accept the Award within the first twelve (12) months following the Grant Date in accordance with procedures established by the Company. The Participant may be required to agree to such additional terms and conditions as may be presented upon acceptance of the Award.

17.Counterparts. This Award Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original and all of which together shall constitute one and the same instrument.

18.Special Section 409A Rules. It is intended that any amounts payable under this Award Agreement shall either be exempt from or comply with section 409A of the Code. The provisions of this Award shall be construed and interpreted in accordance with section 409A of the Code. Notwithstanding any other provision of this Award Agreement to the contrary, if any payment or benefit hereunder is subject to section 409A of the Code, and if such payment or benefit is to be paid or provided on account of the Participant's termination of employment (or other separation from service):

(a)and if the Participant is a specified employee (within the meaning of section 409A(a)(2)(B) of the Code) and if any such payment or benefit is required to be made or provided prior to the first day of the seventh month following the Participant's separation from service or termination of employment, such payment or benefit shall be delayed until the first day of the seventh month following the Participant's termination of employment or separation from service; and

(b)the determination as to whether the Participant has had a termination of employment (or separation from service) shall be made in accordance with the provisions of section 409A of the Code and the guidance issued thereunder without application of any alternative levels of reductions of bona fide services permitted thereunder.

TENNECO INC.

_____
[TITLE]

ACCEPTED:

_____
Type or Print Legal Name (Date)

_____
Signature

_____
Social Security Number or National ID

_____
Street Address

_____
City/State/Zip/Country

EXHIBIT A

Definitions and Calculation Methodologies

Net Leverage Ratio.

"Net Leverage Ratio" means Net Debt as reported under GAAP (total GAAP debt less GAAP cash) divided by Adjusted EBITDA, all as determined for calendar year [INSERT].

"GAAP" means generally accepted accounting principles.

"Adjusted EBITDA" means the Company's Adjusted EBITDA as reported in the Company's earnings release. Generally, the Adjusted EBITDA for any calendar year will be equal to the reported EBITDA for the Company for such calendar year, adjusted, if material, for (i) gains or losses on sales of assets, (ii) restructuring charges, (iii) asset impairments, (iv) asset write-downs, (v) litigation or claim judgments or settlements, (vi) the effect of changes in tax laws, accounting principles or other laws or provisions affecting reported results, (vii) accruals for reorganization and restructuring programs, (viii) gains and losses that are treated as unusual in nature or that occur infrequently as defined under Accounting Standards Codification Topic 225 and/or in management's discussion and analysis of financial condition and results of operations for the Company appearing in the Company's annual report to stockholders for the applicable year, (ix) acquisitions or divestitures, and (x) other significant adjustments approved by the Committee.

In the event that the Net Leverage Ratio is to be determined based on a period other than a full calendar year, the Net Leverage Ratio shall be calculated as of (A) for the first year of the Performance Period, the most recently completed calendar quarter for which financial statements are available (and have been filed) using Adjusted EBITDA for the twelve (12) month period ending on such quarter and (B) for any other period, the most recently completed calendar year for which financial statements are available (and have been filed).

Cumulative EBITDA.

"Cumulative EBITDA" means the Company's Adjusted EBITDA (as defined above) for the entire Performance Period or portion of the Performance Period, as applicable, for the calculation for which Cumulative EBITDA is to be determined.

In the event that Cumulative EBITDA is to be determined based on a period other than a full calendar year, Cumulative EBITDA shall be calculated on a pro rata basis to reflect the portion of the Performance Period elapsed through the date of the applicable determination.

ADDENDUM TO
STOCK-SETTLED PERFORMANCE SHARE UNIT AWARD AGREEMENT

This Addendum to the Award Agreement includes additional terms and conditions that govern the Award if the Participant resides and/or works outside of the United States. If the Participant transfers to another country reflected in this Addendum, the additional terms and conditions for such country (if any) will apply to the Participant to the extent the Company determines, in its sole discretion, that the application of such terms and conditions is necessary or advisable for legal or administrative reasons (or the Company may establish alternative terms as may be necessary or advisable to accommodate the Participant's transfer). Capitalized terms not defined in this Addendum but defined the Award Agreement or the Plan shall have the same meaning as in the Award Agreement or the Plan.

ALL NON-U.S. COUNTRIES

1. Form of Settlement. Notwithstanding any provision in the Award Agreement to the contrary, if the Participant is resident or employed outside of the United States, the Company, in its sole discretion, may settle the PSUs in the form of a cash payment to the extent settlement in shares of Common Stock: (a) is prohibited under local law; (b) would require the Participant, the Company and/or its Subsidiaries to obtain the approval of any governmental and/or regulatory body in the Participant's country of residence (or country of employment, if different); (c) would result in adverse tax consequences for the Participant, the Company or the Participant's employer; or (d) is administratively burdensome. Alternatively, the Company, in its sole discretion, may settle the PSUs in the form of shares of Common Stock but require the Participant to sell such shares of Common Stock immediately or within a specified period following the Participant's Termination Date (in which case, this Addendum shall give the Company the authority to issue sales instructions on the Participant's behalf).

2. Withholding. For purposes of the Award Agreement the following provision shall replace Section 5 of the Award Agreement in its entirety.

> 5. Withholding. Regardless of any action the Company and/or its Subsidiaries take with respect to any or all income tax (including U.S. federal, state and local taxes and/or non-U.S. taxes), social contributions, payroll tax, payment on account or other tax-related withholding ("Tax-Related Items"), the Participant acknowledges that the ultimate liability for all Tax-Related Items legally due by the Participant is and remains the Participant's responsibility and that the Company and its Subsidiaries (a) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the PSUs, including the grant of the PSUs, the vesting of the PSUs, the subsequent sale of any shares of Common Stock acquired and the receipt of any dividends; and (b) do not commit to structure the terms of the grant or any aspect of the PSUs to reduce or eliminate the Participant's liability for Tax-Related Items.
>
> Further, if the Participant becomes subject to taxation in more than one country between the Grant Date and the date of any relevant taxable or tax withholding event, as applicable, the Participant acknowledges that the Company and/or the Participant's employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one country.

Prior to the relevant taxable or tax withholding event, as applicable, if the Participant's country of residence (and country of employment, if different) requires withholding of Tax-Related Items, the Participant agrees to make adequate arrangements satisfactory to the Company and/or the Participant's employer to satisfy all Tax-Related Items. In this regard, the Participant authorizes the Company and/or the Participant's employer, or their respective agents, to satisfy the obligations with regard to all Tax-Related Items by one or a combination of the following: (i) the Company may withhold a sufficient number of whole shares of Common Stock otherwise issuable upon settlement of the PSUs that have an aggregate Fair Market Value sufficient to pay the Tax-Related Items required to be withheld, in which case the cash equivalent of the shares of Common Stock withheld will be used to settle the obligation to withhold the Tax-Related Items; (ii) the Participant's employer may withhold the Tax-Related Items required to be withheld from the Participant's regular salary and/or wages, or other amounts payable to the Participant; (iii) the Company (on the Participant's behalf and at the Participant's direction pursuant to this authorization) may sell a sufficient whole number of shares of Common Stock acquired upon settlement of the PSUs, resulting in sale proceeds sufficient to pay the Tax-Related Items required to be withheld; and (iv) the Participant may be required to provide a cash payment to satisfy the Tax-Related Items.

Depending on the withholding method, the Company may withhold or account for Tax-Related Items by considering applicable statutory withholding rates (as determined by the Company in good faith and in its sole discretion) or other applicable withholding rates, including maximum applicable rates. If the obligation for Tax-Related Items is satisfied by withholding from the shares of Common Stock to be delivered upon settlement of the Award, for tax purposes, the Participant is deemed to have been issued the full number of shares of Common Stock subject to the Award, notwithstanding that a number of shares of Common Stock are held back solely for the purpose of paying the Tax-Related Items. The Participant will have no further rights with respect to any shares of Common Stock that are retained by the Company pursuant to this provision.

The Participant agrees to pay to the Company or the Participant's employer any amount of Tax-Related Items that the Company or the Participant's employer may be required to withhold or account for as a result of the Participant's participation in the Plan that cannot be satisfied by the means previously described. The Company may refuse to issue or deliver shares of Common Stock or proceeds from the sale of shares of Common Stock until arrangements satisfactory to the Company have been made in connection with the Tax-Related Items.

3.Compliance with Local Law. The Participant agrees to repatriate all payments attributable to the shares of Common Stock and/or cash acquired under the Plan (including, but not limited to, dividends and any proceeds derived from the sale of shares of Common Stock) if required by and in accordance with local foreign exchange rules and regulations in the Participant's country of residence (and country of employment, if different). In addition, the Participant also agrees to take any and all actions, and consent to any and all actions taken by the Company and its Subsidiaries, as may be required to allow the Company and its Subsidiaries to comply with local laws, rules and regulations in the Participant's country of residence (and country of employment, if different). Finally, the Participant agrees to take any and all actions as may be required to comply with his or her personal legal and tax obligations under local laws, rules and regulations in the Participant's country of residence (and country of employment, if different).

4.No Advice Regarding Grant. No employee of the Company or its Subsidiaries is permitted to advise the Participant regarding his or her participation in the Plan or the acquisition or sale of shares of Common Stock underlying the PSUs. The Participant is hereby advised to consult with his or her own personal tax, legal and financial advisors before taking any action related to the Plan.

5.Insider Trading; Market Abuse Laws. By participating in the Plan, the Participant agrees to comply with the Company's policy on insider trading (to the extent that it is applicable to the Participant). The Participant acknowledges that, depending on the Participant's or the Participant's broker's country of residence or where the shares of Common Stock are listed, the Participant may be subject to insider trading restrictions and/or market abuse laws that may affect the Participant's ability to accept, acquire, sell or otherwise dispose of shares of Common Stock, rights to shares of Common Stock or rights linked to the value of shares of Common Stock during such times the Participant is considered to have "inside information" regarding the Company as defined in the laws or regulations in the Participant's country. Local insider trading laws and regulations may prohibit the cancellation or amendment of orders the Participant placed before the Participant possessed inside information. Furthermore, the Participant could be prohibited from (a) disclosing the inside information to any third party (other than on a "need to know" basis), and (b) "tipping" third parties or causing them otherwise to buy or sell securities. Third parties include fellow employees. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under the Company insider trading policy. The Participant acknowledges that it is the Participant's responsibility to comply with any restrictions and is advised to speak to his or her personal advisor on this matter.

6.English Language. If the Participant is in a country where English is not an official language, the Participant acknowledges and agrees that it is the Participant's express intent that the Award Agreement, the Plan and all other documents, rules, procedures, forms, notices and legal proceedings entered into, given or instituted pursuant to the PSUs, be drawn up in English. Further, the Participant acknowledges that he or she is sufficiently proficient in English to understand the terms and conditions of this Award Agreement and any documents related to the Plan or has had the ability to consult with an advisor who is sufficiently proficient in the English language. If the Participant has received the Award Agreement, the Plan or any other rules, procedures, forms or documents related to the PSUs translated into a language other than English, and if the meaning of the translated version is different than the English version, the English version will control.

7.Not a Public Offering. Neither the grant of the PSUs under the Plan nor the issuance of the underlying shares of Common Stock upon settlement of the PSUs is intended to be a public offering of securities in the Participant's country of residence (and country of employment, if different). The Company has not submitted any registration statement, prospectus or other filings to the local securities authorities in jurisdictions outside of the United States unless otherwise required under local law.

8.Additional Requirements. The Company reserves the right to impose other requirements on the Award, any shares of Common Stock acquired pursuant to the Award and the Participant's participation in the Plan to the extent the Company determines, in its sole discretion, that such other requirements are necessary or advisable for legal or administrative reasons. Such requirements may include (but are not limited to) requiring the Participant to sign any agreements or undertakings that may be necessary to accomplish the foregoing.

9.Data Privacy. The Participant hereby explicitly and unambiguously consents to the collection, use, processing and transfer, in electronic or other form, of the Participant's personal data as described in this document by and among, as applicable, the Company, its affiliates and its Subsidiaries for the exclusive purpose of implementing, administering and managing the Participant's participation in the Plan.

The Participant understands that the Company (and/or his or her employer, if applicable) holds certain personal information about the Participant, including, but not limited to, the Participant's name, home address and telephone number, date of birth, email address, family size, marital status, sex, beneficiary information, emergency contacts, passport/visa information, age, language skills, driver's license information, nationality, C.V. (or resume), wage history, employment references, social insurance number, resident registration number or other identification number, salary, job title, employment or severance contract, current wage and benefit information, personal bank account number, tax-related information, plan or benefit enrollment forms and elections, award or benefit statements, any shares of Common Stock or directorships in the Company, details of all awards or any other entitlements to shares of Common Stock awarded, canceled, purchased, vested, unvested or outstanding for purpose of managing and administering the Plan ("Data").

The Participant understands that Data may be transferred to any third parties assisting in the implementation, administration and management of the Plan including, but not limited to the affiliates of the Company and/or the third party administrator engaged by the Company to administer the Plan, or any successor. These third party recipients may be located in the Participant's country of residence (or employment, if different) or elsewhere, and the recipient's country may have different data privacy laws and protections than the Participant's country. The Participant understands that the Participant may request a list with the names and addresses of any potential recipients of the Data by contacting the Participant's human resources representative.

The Participant authorizes the recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, for the purposes of implementing, administering and managing the Participant's participation in the Plan, including any requisite transfer of such Data as may be required to a broker or other third party with whom the Participant may elect to deposit any shares of Common Stock acquired. The Participant understands that Data will be held only as long as is necessary to implement, administer and manage the Participant's participation in the Plan.

The Participant understands that he or she may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing the Participant's human resources representative. The Participant understands, however, that refusing or withdrawing the Participant's consent may affect his or her ability to participate in the Plan. For more information on the consequences of the Participant's refusal to consent or withdrawal of consent, the Participant understands that he or she may contact the Participant's human resources representative.

Finally, the Company may rely on a different legal basis for the processing and/or transfer of Data in the future and/or request that the Participant provide another data privacy consent. If applicable and upon request of the Company or the Participant's employer, the Participant agrees to provide an executed acknowledgment or data privacy consent form (or any other acknowledgments, agreements or consents) to the Company or the Participant's employer that the Company and/or the Participant's employer may deem necessary to obtain under the data privacy laws in the Participant's country, either now or in the future. The Participant understands that the Participant will not be able to participate in the Plan if he or she fails to execute any such acknowledgment, agreement or consent requested by the Company and/or the Participant's employer.

10. Nature of Grant. In accepting the grant of PSUs, the Participant acknowledges, understands and agrees that:

(a) the Plan is established voluntarily by the Company, it is discretionary in nature and it may be modified, suspended or terminated by the Committee at any time, as provided in the Plan and the Award Agreement;

(b) the grant of PSUs is exceptional, voluntary and occasional and does not create any contractual or other right to receive future grants of PSUs, or benefits in lieu of PSUs, even if PSUs have been granted in the past;

(c) all decisions with respect to future grants of PSUs or other grants, if any, will be at the sole discretion of the Company, including, but not limited to, the form and timing of an Award, the number of shares of Common Stock subject to an Award, and the vesting provisions applicable to the Award;

(d) the grant of PSUs and the Participant's participation in the Plan shall not create a right to employment or be interpreted as forming an employment or service contract with the Company, the Participant's employer or any Subsidiary and shall not interfere with the ability of the Participant's employer to terminate his or her employment or service relationship;

(e) the Participant is voluntarily participating in the Plan;

(f) the PSUs and the shares of Common Stock subject to the PSUs are not intended to replace any pension rights or compensation;

(g)the PSUs, the shares of Common Stock subject to the PSUs and the value of same, are an extraordinary item of compensation outside the scope of the Participant's employment (and employment contract, if any) and is not part of normal or expected compensation for any purpose, including, without limitation, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, holiday pay, long-service awards, pension or retirement or welfare benefits or similar payments;

(h)the future value of the shares of Common Stock underlying the PSUs is unknown, indeterminable and cannot be predicted with certainty;

(i)unless otherwise determined by the Committee in its sole discretion, the Termination Date shall be effective from the date on which active employment or service ends and shall not be extended by any statutory or common law notice of termination period; the Committee or its delegate shall have the exclusive discretion to determine when the Termination Date occurs for purposes of this grant of PSUs;

(j)no claim or entitlement to compensation or damages shall arise from forfeiture of the PSUs resulting from the Participant ceasing to have rights under or to be entitled to PSUs, whether or not as a result of the Participant's termination of employment (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where the Participant is employed or the terms of the Participant's employment agreement, if any), and in consideration of the grant of the PSUs to which the Participant is otherwise not entitled, the Participant irrevocably agrees never to institute any claim against the Company, its Subsidiaries or his or her employer;

(k)the Participant acknowledges and agrees that neither the Company nor any Subsidiary shall be liable for any exchange rate fluctuation between the Participant's local currency and the United States Dollar that may affect the value of the PSUs or of any amounts due pursuant to the settlement of the PSUs or the subsequent sale of any shares of Common Stock acquired upon settlement.

11.Electronic Delivery and Acceptance. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan by electronic means. The Participant hereby consents to receive such documents by electronic delivery and agree to participate in the Plan through an online or electronic system established and maintained by the Company or a third party designated by the Company. The Participant also agrees that all online acknowledgements shall have the same force and effect as a written signature.

EUROPEAN UNION ("EU") AND THE UNITED KINGDOM

1. EU Age Discrimination Rules. If the Participant is resident or employed in a country that is a member of the EU or the United Kingdom, the grant of the Award and the Award Agreement are intended to comply with the age discrimination provisions of the EU Equal Treatment Framework Directive, as implemented into local law (the "Age Discrimination Rules"). To the extent that a court or tribunal of competent jurisdiction determines that any provision of the Award Agreement is invalid or unenforceable, in whole or in part, under the Age Discrimination Rules, the Company, in its sole discretion, shall have the power and authority to revise or strike such provision to the minimum extent necessary to make it valid and enforceable to the full extent permitted under local law.

2. Data Privacy Information and Consent.

(a) Data Collection and Usage. The Company and the Participant's employer may collect, process and use certain personal information about the Participant, including, but not limited to, the Participant's name, home address and telephone number, email address, date of birth, social insurance number, passport or other identification number, salary, nationality, job title, any shares of stock or directorships held in the Company, details of all PSUs or any other entitlement to shares of stock awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor ("Data"), for the purposes of implementing, administering and managing the Plan. The legal basis, where required, for the processing of Data is the Participant's consent.

(b) Stock Plan Administration Service Providers. The Company transfers Data to Fidelity Stock Plan Services LLC and its affiliated companies, an independent service provider based in the United States, which is assisting the Company with the implementation, administration and management of the Plan. The Company may select a different service provider or additional service providers and share Data with such other provider serving in a similar manner. The Participant may be asked to agree on separate terms and data processing practices with the service provider, with such agreement being a condition to the ability to participate in the Plan.

(c) International Data Transfers. The Company and its service providers are based in the United States. The Participant's country or jurisdiction may have different data privacy laws and protections than the United States. For example, the European Commission has issued a limited adequacy finding with respect to the United States that applies only to the extent companies register for the EU-U.S. Privacy Shield program. The Company has certified under the EU-U.S. Privacy Shield Program and relies on it for its transfer of Data from European Union countries to the U.S. Elsewhere, its legal basis for the transfer of Data, where required, is the Participant's consent.

(d) Data Retention. The Company will hold and use the Data only as long as is necessary to implement, administer and manage the Participant's participation in the Plan, or as required to comply with legal or regulatory obligations, including under tax and security laws.

(e)Voluntariness and Consequences of Consent Denial or Withdrawal. The Participation in the Plan is voluntary and the Participant is providing the consents herein on a purely voluntary basis. If the Participant does not consent, or if the Participant later seeks to revoke the Participant's consent, the Participant's salary from or employment and career with the Participant's employer will not be affected; the only consequence of refusing or withdrawing the Participant's consent is that the Company would not be able to grant this Award of PSUs or other equity awards to the Participant or administer or maintain such awards.

(f)Data Subject Rights. The Participant may have a number of rights under data privacy laws in the Participant's jurisdiction. Depending on where the Participant is based, such rights may include the right to (i) request access or copies of Data the Company processes, (ii) rectification of incorrect Data, (iii) deletion of Data, (iv) restrictions on processing of Data, (v) portability of Data, (vi) lodge complaints with competent authorities in the Participant's jurisdiction, and/or (vii) receive a list with the names and addresses of any potential recipients of Data. To receive clarification regarding these rights or to exercise these rights, the Participant can contact his or her local human resources representative.

By accepting the PSUs and indicating consent via the Company's acceptance procedure, the Participant is declaring that he or she agrees with the data processing practices described herein and consents to the collection, processing and use of Data by the Company and the transfer of Data to the recipients mentioned above, including recipients located in countries which do not adduce an adequate level of protection from a European (or other non-U.S.) data protection law perspective, for the purposes described above.

Finally, upon request of the Company or the Participant's employer, the Participant agrees to provide an executed data privacy consent form (or any other agreements or consents) that the Company and/or the Participant's employer may deem necessary to obtain from the Participant for the purpose of administering the Participant's participation in the Plan in compliance with the data privacy laws in the Participant's country, either now or in the future. The Participant understands and agrees that the Participant will not be able to participate in the Plan if the Participant fails to provide any such consent or agreement requested by the Company and/or the Participant's employer.

ARGENTINA

1.Securities Law Information. Neither the PSUs nor the underlying shares of Common Stock are publicly offered or listed on any stock exchange in Argentina.

2.Nature of Grant. The following provision shall supplement Section 10 of the "All Non-US Countries" portion of this Addendum:

By accepting the Award, the Participant acknowledges and agrees that the grant of PSUs is made by the Company (not the Participant's employer) in its sole discretion and that the value of the PSUs or any shares of Common Stock acquired under the Plan shall not constitute salary or wages for any purpose under Argentine labor law, including, but not limited to, the calculation of (a) any labor benefits including, but not limited to, vacation pay, thirteenth salary, compensation in lieu of notice, annual bonus, disability, and leave of absence payments, etc., or (b) any termination or severance indemnities or similar payments.

If, notwithstanding the foregoing, any benefits under the Plan are considered salary or wages for any purpose under Argentine labor law, the Participant acknowledges and agrees that such benefits shall not accrue more frequently than on each Settlement Date.

AUSTRALIA

1.Australian Offer Document. The offer of PSUs is intended to comply with the provisions of the Corporations Act 2001, ASIC Regulatory Guide 49 and ASIC Class Order CO 14/1000. Additional details are set forth in the Offer Document for the offer of PSUs to Australian resident employees, which will be provided to the Participant with the Award Agreement.

2.Compliance with Law. Notwithstanding anything else in the Award Agreement, the Participant will not be entitled to, and shall not claim, any benefit under the Plan if the provision of such benefit would give rise to a breach of Part 2D.2 of the Corporations Act 2001 (Cth) (the "Corporations Act"), any other provision of the Corporations Act, or any other applicable statute, rule or regulation which limits or restricts the giving of such benefits. Further, the Participant's employer is under no obligation to seek or obtain the approval of its shareholders in general meeting for the purpose of overcoming any such limitation or restriction.

3.Tax Information. The Plan is a program to which Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) (the "Act") applies (subject to the conditions in that Act).

BELGIUM

No country-specific provisions.

BRAZIL

1.Compliance with Law. By accepting the Award, the Participant agrees to comply with all applicable Brazilian laws and pay any and all applicable taxes associated with the vesting of the Award and the sale of any shares of Common Stock obtained.

2.Nature of Grant. The following provision shall supplement Section 10 of the "All Non-US Countries" portion of this Addendum:

The Participant expressly agrees that (i) the benefits provided under the Award Agreement and the Plan are the result of commercial transactions unrelated to the Participant's employment; (ii) the Award Agreement and the Plan are not part of the terms and conditions of the Participant's employment; and (iii) the income from the Award, if any, is not part of the Participant's remuneration from employment.

CANADA

1.Settlement. Notwithstanding anything to the contrary in the Award Agreement, Addendum or the Plan, the Award shall be settled only in shares of Common Stock (and may not be settled in cash).

2.Securities Law Information. The Participant acknowledges and agrees that he or she will sell shares of Common Stock acquired through participation in the Plan only outside of Canada through the facilities of a stock exchange on which the Common Stock is listed. Currently, the shares of Common Stock are listed on the New York Stock Exchange.

THE FOLLOWING PROVISIONS APPLY IF THE PARTICIPANT IS A RESIDENT OF QUEBEC

3. Use of English Language. If the Participant is a resident of Quebec, by accepting the Award, the Participant acknowledges and agrees that it is the Participant's express wish that the Award Agreement, this Addendum, as well as all other documents, notices and legal proceedings entered into, given or instituted pursuant to the Award, either directly or indirectly, be drawn up in English.

Utilisation de la langue anglaise. Si le Participant est un résident du Québec, en acceptant l'Attribution, le Participant reconnaît et convient avoir expressément exigé la rédaction en anglais de la Convention d'Attribution, de la présente Annexe, ainsi que de tous documents exécutés, avis donnés ou procédures judiciaires intentées relatifs, directement ou indirectement, à l'Attribution.

4. Data Privacy. The following provision shall supplement Section 9 of the "All Non-US Countries" portion of this Addendum:

The Participant hereby authorizes the Company and the Company's representatives to discuss with and obtain all relevant information from all personnel, professional or not, involved in the administration and operation of the Plan. The Participant further authorizes his or her employer, the Company, and any other Subsidiary to disclose and discuss the Plan with their respective advisors. The Participant further authorizes his or her employer, the Company, and any other Subsidiary to record such information and to keep such information in the Participant's employee file.

5. Forfeiture upon Termination. This provision supplements Section 10(i) of the "All Non-US Countries" portion of this Addendum:

For purposes of the PSUs, notwithstanding Section 10(i) of the Addendum, the Committee or its delegate may provide that the Participant's termination of employment will occur as of the date the Participant is no longer actually employed or otherwise rendering services to the Participant's employer (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment or other laws or otherwise rendering services or the terms of the Participant's employment or other service agreement, if any). In such case, unless otherwise provided in the Award Agreement or extended by the Company, the Participant's right to vest in the PSUs under the Plan, if any, will terminate as of such date (the "Termination Date"). The Termination Date will not be extended by any common law notice period. Notwithstanding the foregoing, however, if applicable employment standards legislation specifically requires continued entitlement to vesting during a statutory notice period, the Participant's right to vest in the PSUs under the Plan, if any will be allowed to continue for that minimum notice period but then immediately terminate effective as of the last day of the Participant's minimum statutory notice period. In the event the date the Participant is no longer providing actual service cannot be reasonable determined under the terms of the Award Agreement and/or the Plan, the Committee or its delegate shall have the exclusive discretion to determine when the Participant is no longer actively providing services for purposes of the PSUs (including whether the Participant may still be considered to be providing services while on a leave of absence). Unless the applicable employment standards legislation specifically requires, in the case of the Participant, the Participant will not earn or be entitled to any pro-rated vesting for that portion of time before the date on which his service relationship is terminated (as determined under this provision) nor will the Participant be entitled to any compensation for lost vesting.

CHINA

The following provisions govern the Participant's participation in the Plan if the Participant is a national of the People's Republic of China ("China") resident in mainland China, as determined by the Company in its sole discretion. Such provisions may also apply to non-PRC nationals, to the extent required by the Company or by the China State Administration of Foreign Exchange ("SAFE").

1. Exchange Control Approval. The settlement of the Award is conditioned upon the Company securing all necessary approvals from the SAFE to permit operation of the Plan.

2. Shares of Common Stock Must Be Held with Designated Broker. All shares of Common Stock issued upon settlement of the PSUs will be deposited into a personal brokerage account established with the Company's designated broker (or any successor broker designated by the Company), on the Participant's behalf. The Participant understands that the Participant generally may sell the shares of Common Stock at any time after they are deposited in such account, however, the Participant may not transfer the shares of Common Stock out of the brokerage account.

3. Cancellation of Award; Mandatory Sale of Shares Following Termination Date. Due to Chinese exchange control restrictions, to the extent that the Award has not been settled and unless otherwise determined by the Company in its sole discretion, the Award shall be cancelled on the 90th day following the Participant's Termination Date (or such earlier date as may be required by the SAFE). Further, the Participant shall be required to sell all shares of Common Stock acquired upon settlement of the PSUs no later than 90 days following the Participant's Termination Date (or such earlier date as may be required by the SAFE), in which case, this Addendum shall give the Company the authority to issue sales instructions on the Participant's behalf. If any shares of Common Stock remain outstanding on the 90th day following the Participant's Termination Date (or such earlier date as may be required by SAFE), the Participant hereby directs, instructs and authorizes the Company to issue sale instructions on the Participant's behalf.

The Participant agrees to sign any additional agreements, forms and/or consents that reasonably may be requested by the Company (or the Company's designated brokerage firm) to effectuate the sale of the shares of Common Stock (including, without limitation, as to the transfer of the sale proceeds and other exchange control matters noted below) and shall otherwise cooperate with the Company with respect to such matters. The Participant acknowledges that neither the Company nor the designated brokerage firm is under any obligation to arrange for such sale of shares of Common Stock at any particular price (it being understood that the sale will occur in the market) and that broker's fees and similar expenses may be incurred in any such sale. In any event, when the shares of Common Stock are sold, the sale proceeds, less any tax withholding, any broker's fees or commissions, and any similar expenses of the sale will be remitted to the Participant in accordance with applicable exchange control laws and regulations.

4.Exchange Control Restrictions. The Participant understands and agrees that, pursuant to local exchange control requirements, the Participant will be required immediately to repatriate to China the proceeds from the sale of any shares of Common Stock acquired under the Plan. The Participant further understands that such repatriation of proceeds may need to be effected through a special bank account established by the Company or its Subsidiaries, and the Participant hereby consents and agrees that proceeds from the sale of shares of Common Stock acquired under the Plan may be transferred to such account by the Company on the Participant's behalf prior to being delivered to the Participant and that no interest shall be paid with respect to funds held in such account. The proceeds may be paid to the Participant in U.S. dollars or local currency at the Company's discretion. If the proceeds are paid to the Participant in U.S. dollars, the Participant understands that a U.S. dollar bank account in China must be established and maintained so that the proceeds may be deposited into such account. If the proceeds are paid to the Participant in local currency, the Participant acknowledges that the Company is under no obligation to secure any particular exchange conversion rate and that the Company may face delays in converting the proceeds to local currency due to exchange control restrictions. The Participant agrees to bear any currency fluctuation risk between the time the shares of Common Stock are sold and the net proceeds are converted into local currency and distributed to the Participant. The Participant further agrees to comply with any other requirements that may be imposed by the Company or its Subsidiaries in China in the future to facilitate compliance with exchange control requirements in China. The Participant acknowledges and agrees that the processes and requirements set forth herein shall continue to apply following the Participant's termination.

5.Administration. Neither the Company nor any of its Subsidiaries shall be liable for any costs, fees, lost interest or dividends or other losses the Participant may incur or suffer resulting from the enforcement of the terms of this Addendum or otherwise from the Company's operation and enforcement of the Plan, the Award Agreement and the Award in accordance with Chinese law including, without limitation, any applicable SAFE rules, regulations and requirements.

CZECHIA

No country-specific provisions.

FINLAND

No country-specific provisions.

FRANCE

1.Award Not French-Qualified. The PSUs are not granted under the French specific regime provided by Articles L. 225-197-1 and seq. or L. 22-10-59 and L. 22-10-60 of the French Commercial Code, as amended.

2.Use of English Language. By accepting the Award, the Participant acknowledges and agrees that it is the Participant's express wish that the Award Agreement, this Addendum, as well as all other documents, notices and legal proceedings entered into, given or instituted pursuant to the Award, either directly or indirectly, be drawn up in English.

Utilisation de la langue anglaise. En acceptant l'Attribution, le Participant reconnaît et convient avoir expressément exigé la rédaction en anglais de la Convention d'Attribution, de la présente Annexe, ainsi que de tous documents exécutés, avis donnés ou procédures judiciaires intentées relatifs, directement ou indirectement, à l'Attribution.

GERMANY

No country-specific provisions.

INDIA

No country-specific provisions.

ITALY

1.Plan Document Acknowledgement. In accepting the Award, the Participant acknowledges that the Participant has received a copy of the Plan and the Award Agreement and has reviewed the Plan and the Award Agreement, including this Addendum, in their entirety and fully understands and accepts all provisions of the Plan and the Award Agreement, including this Addendum. The Participant further acknowledges that the Participant has read and specifically and expressly approves the following Sections of the Award Agreement: (a) Section 1 (General Terms of the Award), (b) Section 2 (Determination of Amount of Award), (b) Section 3 (Payment and Settlement of Award), and (c) the terms and conditions of this Addendum.

JAPAN

No country-specific provisions.

KOREA

1.Data Privacy. By accepting the Award:

(a)The Participant agrees to the collection, use, processing and transfer of Data as described in Section 9 of the "All Non-U.S. Countries" portion of this Addendum; and

(b)The Participant agrees to the processing of the Participant's unique identifying information (resident registration number) as described in Section 9 of the "All Non-U.S. Countries" portion of this Addendum.

MEXICO

1.Nature of Grant. The following provision shall supplement Section 10 of the "All Non-US Countries" portion of this Addendum:

By participating in the Plan, the Participant acknowledges, understands and agrees that: (a) the right to acquire shares of Common Stock under the Plan is not related to the Participant's salary and other contractual benefits granted to the Participant by his or her employer ("Tenneco Mexico"); (b) any modification of the Plan or its termination shall not constitute a change or impairment to the terms and conditions of the Participant's employment; and (c) any benefit derived under the Plan is not a fringe benefit.

2.Policy Statement. The invitation the Company is making under the Plan is unilateral and discretionary and, therefore, the Company reserves the absolute right to amend it and discontinue it at any time without any liability.

The Company, with registered offices at 500 North Field Drive, Lake Forest, Illinois 60045 USA, is solely responsible for the administration of the Plan, and participation in the Plan and the acquisition of shares of Common Stock does not, in any way, establish an employment relationship between the Participant and the Company nor does it establish any rights between the Participant and Tenneco Mexico since the Participant is participating in the Plan on a wholly commercial basis.

1.Plan Document Acknowledgment. By accepting the terms of the Award Agreement, the Participant acknowledges that he or she has received a copy of the Plan, has reviewed the Plan and the Award Agreement in their entirety and fully understands and accepts all provisions of the Plan and the Award Agreement.

In addition, by accepting the terms of the Award Agreement, the Participant further acknowledges that he or she has read and specifically and expressly approves the provisions contained within Section 10 of the Addendum to the Award Agreement in which the following is clearly described and established: (a) participation in the Plan does not constitute an acquired right; (b) the Plan and participation in the Plan is offered by the Company on a wholly discretionary basis; (c) participation in the Plan is voluntary; and (d) the Company and its Subsidiary are not responsible for any decrease in the value of the shares of Common Stock that the Participant may acquire under the Plan.

Finally, the Participant hereby declares that he or she does not reserve any action or right to bring any claim against the Company for any compensation or damages resulting from a termination of employment and withdrawal from the Plan, and therefore, the Participant grants a full and broad release to Tenneco Mexico, the Company and its Subsidiaries with respect to any claim that may arise under the Plan in this respect.

1.Naturaleza del Otorgamiento. La siguiente disposición complementará la Sección 10 de la porción de este Apéndice llamada "Todas los Países no-Estadounidenses" ("All Non-US Countries," en Inglés):

Al participar en el Plan, el Participante reconoce, entiende y acepta de que: (a) el derecho de adquirir Acciones por medio del Plan no se relaciona con el salario del Participante o cualquier beneficios contractuales que se hayan sido otorgados al Participante por su empleador "Tenneco México"; (b) cualquier modificación al Plan o la terminación del mismo no constituirá un cambio o impedimento a los términos y condiciones del empleo del Participante; y (c) cualquier beneficio derivado por medio del Plan no es un beneficio adicional.

2.Declaración de Política. La invitación por parte de la Compañía bajo el Plan es unilateral y discrecional y, por lo tanto, la Compañía se reserva el derecho absoluto de modificar y discontinuar el Plan en cualquier momento sin ninguna responsabilidad.

La Compañía, con oficinas registradas ubicadas en 500 North Field Drive, Lake Forest, Illinois, 60045, EE.UU., es la única responsable por la administración del Plan, y la participación en el Plan y la adquisición de Acciones no establece, de forma alguna, una relación laboral entre el Participante y la Compañía, ni tampoco establece algún derecho entre el Participante y Tenneco México, ya que el Participante está participando en el Plan sobre una base completamente comercial.