

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

**Date of Report (Date of earliest event reported):
June 12, 2019**

CVR ENERGY, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other
jurisdiction of
incorporation)

001-33492
(Commission File Number)

61-1512186
(I.R.S. Employer
Identification Number)

**2277 Plaza Drive, Suite 500
Sugar Land, Texas 77479**
(Address of principal executive offices, including zip code)

(281) 207-3200
(Registrant's telephone number, including area code)

N/A
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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.

Item 8.01 Other Events

CVR Energy Inc. (the "Company") is filing this Current Report on Form 8-K to recast the consolidated financial statements that were initially filed with the Securities and Exchange Commission ("SEC") on February 21, 2019 in the Company's Annual Report on Form 10-K for the year ended December 31, 2018 (the "Form 10-K"), as a result of the Company's revision in the first quarter of 2019 of its accounting policy method for the cost of planned major maintenance activities (turnarounds) for its Petroleum Segment.

The Company changed its financial information presentation in the first quarter of 2019 to reflect the revised accounting policy. In previous periods, costs of planned major maintenance activities (turnarounds) were being expensed as incurred (the direct expensing method). Under the revised accounting policy turnarounds, specific to the Petroleum Segment are deferred and amortized on a straight-line basis over a four-year period of time (the deferral method). The new method of accounting for turnarounds is considered preferable as it is more consistent with the accounting policies of our peer companies and better reflects the economic substance of the benefits earned from turnaround expenditures. The Company's presentation for the Nitrogen Fertilizer Segment will continue to follow the direct expensing method; therefore, this change had no impact on the financial information of the Nitrogen Fertilizer Segment.

Attached as Exhibit 99.1 of this Form 8-K are the following portions of the Form 10-K that were revised to reflect the revised accounting policy by the Company: Selected Financial Data (Item 6), Management's Discussion and Analysis of Financial Condition and Results of Operations (Item 7) and Financial Statements and Supplementary Data (Item 8). The turnaround-specific information in Exhibit 99.1 is consistent with the presentation of turnarounds in the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019, filed with the SEC on April 25, 2019 (the "Form 10-Q").

This Current Report on Form 8-K is being filed only for the purposes described above and all other information in the Form 10-K remains unchanged. In order to preserve the nature and character of the disclosures set forth in the Form 10-K, the items included in Exhibit 99.1 of this Form 8-K have been updated solely for matters relating specifically to the revised accounting policy as described above. No attempt has been made in this Current Report on Form 8-K to reflect events or occurrences after the date of the filing of the Form 10-K on February 21, 2019, and it should not be read to modify or update other disclosures as presented in the Form 10-K. Therefore, this Current Report on Form 8-K should be read in conjunction with the Form 10-K and the Company's filings made with the SEC subsequent to the filing of the Form 10-K, including the Form 10-Q. References in the attached exhibits to the Form 10-K or parts thereof refer to the Form 10-K for the year ended December 31, 2018, filed on February 21, 2019, except to the extent portions of such Form 10-K have been revised in this Current Report on Form 8-K, in which case, they refer to the applicable revised portion in this Current Report on Form 8-K.

Item 9.01. Financial Statements and Exhibits

(d) Exhibits

<u>Exhibit</u> <u>Number</u>	<u>Exhibit Description</u>
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[23.1 Consent of Grant Thornton LLP](#)

[99.1 Items from CVR Energy Annual Report on the Form 10-K for the year ended December 31, 2018, revised to reflect revised accounting policy: Selected Financial Data \(Item 6\), Management's Discussion and Analysis of Financial Condition and Results of Operations \(Item 7\) and Financial Statements and Supplementary Data \(Item 8\)](#)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Current Report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: June 12, 2019

CVR Energy, Inc.

By: /s/ TRACY D. JACKSON
Tracy D. Jackson
Executive Vice President and
Chief Financial Officer

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated February 21, 2019 (except for the effects of the change in accounting policy, as discussed in Note 3, as to which the date is June 12, 2019) with respect to the consolidated financial statements included in this Current Report of CVR Energy, Inc. on Form 8-K. We consent to the incorporation by reference of said report in the Registration Statements of CVR Energy, Inc. on Forms S-8 (File No. 333-146907 and File No. 333-148783).

/s/ GRANT THORNTON LLP

Kansas City, Missouri
June 12, 2019

EX-99.1 - ITEMS 6, 7 & 8 REVISED TO REFLECT RECAST FINANCIAL INFORMATION

EXPLANATORY NOTE

Effective January 1, 2019, CVR Energy, Inc. (the “Company”) revised its accounting policy method for the costs of planned major maintenance activities (turnarounds) specific to the Petroleum Segment from being expensed as incurred (the direct expensing method) to the deferral method. Turnarounds are planned shutdowns of refinery processing units for significant overhaul and refurbishment. Under the deferral method, the costs of turnarounds are deferred and amortized on a straight-line basis over a four-year period of time, which represents the estimated time until the next turnaround occurs. The new method of accounting for turnarounds is considered preferable as it is more consistent with the accounting policies of our peer companies and better reflects the economic substance of the benefits earned from turnaround expenditures. The consolidated balance sheet for the periods ended December 31, 2018 and 2017, the related consolidated statement of operations, statement of changes in equity and statement of cash flows for each of the three years in the period ended December 31, 2018 have been recast to reflect our new accounting policy. Turnaround costs, and related accumulated amortization, are included in the consolidated balance sheet as Other long-term assets. The amortization expense related to turnaround costs is included in depreciation and amortization in the consolidated statement of operations. CVR Partners, LP (“CVR Partners” or the “Nitrogen Fertilizer Partnership”), the Company’s publicly traded limited partnership, will continue to follow the direct expensing method. Therefore, this change had no impact on CVR Partners’ financial information.

The Company has updated, to the extent applicable, the following items contained in its Annual Report on Form 10-K for the year ended December 31, 2018 filed with the SEC on February 21, 2019 (the “Form 10-K”) to reflect the turnaround accounting policy change described above:

- Part II, Item 6. Selected Financial Data;
- Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations; and
- Part III, Item 8. Financial Statements and Supplementary Data.

The items included in this Exhibit 99.1 update the same items presented in the Form 10-K solely for changes to reflect the turnaround accounting policy change. There are no changes to other disclosures presented in the Form 10-K. The items included in this Exhibit 99.1 do not reflect events occurring after the Company filed the Form 10-K and do not modify or update the disclosures therein in any way, other than as noted above. Therefore, the disclosure presented in the items included in this Exhibit 99.1 should be read in conjunction with the Form 10-K and the Company’s other periodic and current reports on Form 10-Q and Form 8-K.

Unless the context otherwise requires, references in this report to “CVR Energy,” the “Company,” “we,” “us” or “our” may refer to CVR Energy, Inc., one or more of its consolidated subsidiaries or all of them taken as a whole. The words “we,” “us” or “our” generally include CVR Refining, LP (“CVR Refining” or “CVRR”) or CVR Partners, LP, and their respective subsidiaries, as consolidated subsidiaries of the Company with certain exceptions where there are transactions or obligations between and among CVR Refining, CVR Partners and CVR Energy, including their subsidiaries.

PART II

Item 6. Selected Financial Data

The following tables set forth certain selected consolidated financial data as of and for each year in the five-year period ended December 31, 2018. The selected consolidated financial information presented below has been derived from our historical financial statements. The following tables should be read in conjunction with Item 7 and our consolidated financial statements and related notes thereto in Item 8.

(in millions)	For the Twelve Months Ended December 31,				
	2018	2017	2016	2015	2014
Statements of Operations					
Net sales	\$ 7,124	\$ 5,988	\$ 4,782	\$ 5,433	\$ 9,110
Net income attributable to CVR Energy stockholders	259	263	25	197	157
Basic and diluted earnings per share	\$ 2.80	\$ 3.03	\$ 0.29	\$ 2.27	\$ 1.81
Dividends declared per share	\$ 2.50	\$ 2.00	\$ 2.00	\$ 2.00	\$ 5.00
	Year Ended December 31,				
(in millions)	2018	2017	2016	2015	2014
Balance Sheet					
Cash and cash equivalents	\$ 668	\$ 482	\$ 736	\$ 765	\$ 754
Total assets	4,000	3,953	4,159	3,413	3,497
Total long-term debt and capital lease obligations, net of current portion	1,167	1,164	1,165	667	667
Total liabilities	2,057	2,130	2,371	1,736	1,797
Total CVR stockholders' equity	1,286	988	899	1,025	1,001
Total equity	1,943	1,823	1,788	1,677	1,700

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes included elsewhere in this Report. References to CVR Energy, the Company, "we", "us", and "our" may refer to consolidated subsidiaries of CVR Energy, including CVR Refining or CVR Partners, as the context may require.

Strategy and Goals

Mission and Core Values

Our mission is to be a top tier North American petroleum refining and nitrogen-based fertilizer company as measured by safe and reliable operations, superior performance and profitable growth. The foundation of how we operate is built on five core values:

- *Safety* - We always put safety first. The protection of our employees, contractors and communities is paramount. We have an unwavering commitment to safety above all else. If it's not safe, then we don't do it.
- *Environment* - We care for our environment. Complying with all regulations and minimizing any environmental impact from our operations is essential. We understand our obligation to the environment and that it's our duty to protect it.
- *Integrity* - We require high business ethics. We comply with the law and practice sound corporate governance. We only conduct business one way—the right way with integrity.
- *Corporate Citizenship* - We are proud members of the communities where we operate. We are good neighbors and know that it's a privilege we can't take for granted. We seek to make a positive economic and social impact through our financial donations and the contributions of time, knowledge and talent of our employees to the places where we live and work.
- *Continuous Improvement* - We believe in both individual and team success. We foster accountability under a performance-driven culture that supports creative thinking, teamwork and personal development so that employees can realize their maximum potential. We use defined work practices for consistency, efficiency and to create value across the organization.

Our core values are driven by our people, inform the way we do business each and every day and enhance our ability to accomplish our mission and related strategic objectives.

Strategic Objectives

We have outlined the following strategic objectives to drive the accomplishment of our mission:

Safety - We aim to achieve continuous improvement in all environmental, health and safety areas through ensuring our people's commitment to environmental, health and safety comes first, the refinement of existing policies, continuous training, and enhanced monitoring procedures.

Reliability - Our goal is to achieve industry-leading utilization factors at our facilities through safe and reliable operations. We are focusing on improvements in day-to-day plant operations, identifying alternative sources for plant inputs to reduce lost time due to third-party operational constraints, and optimizing our commercial and marketing functions to maintain plant operations at their highest level.

Market Capture - We continuously evaluate opportunities to improve the facilities' netbacks and reduce variable costs incurred in production to maximize our capture of market opportunities.

Financial Discipline - We strive to be as efficient as possible by maintaining low operating costs and a disciplined deployment of capital.

Achievements

We successfully executed a number of achievements in support of our strategic objectives shown below through the date of this filing:

	Safety	Reliability	Market Capture	Financial Discipline
We achieved significant year-over-year improvement in environmental, health and safety areas at all plants.	ü	ü		
We consolidated certain back office locations reducing administrative overhead costs.				ü
Petroleum Segment:				
We have rationalized our gathering operations to focus on crude oil produced within closer proximity to the refineries where we have transportation advantages.			ü	ü
We increased our throughput of regional crudes and condensate by 38% and 270%, respectively, while reducing reliance on WTI Cushing common crude oil by 30%.			ü	ü
We completed the reversal of our Red River pipeline to deliver SCOOP / STACK barrels to Coffeyville replacing WTI Cushing common barrels.			ü	ü
The Refineries ran at high utilization rates, excluding the unplanned downtime in the first quarter of 2018.	ü	ü	ü	ü
We outlined a multi-year approach to improve crude optionality, market capture and reliability at the Refineries.		ü	ü	ü
We began the Benfree repositioning project at the Wynnewood Refinery which should increase liquid yield by 1%. Scheduled completion is currently Q1 2019.		ü	ü	ü
We increased our production of premium gasoline to over 9,000 bpd in 2018 compared to approximately 6,400 bpd in 2017.			ü	
We increased internal RIN generation by beginning to blend Biodiesel across refinery racks.			ü	ü
Nitrogen Fertilizer:				
During 2018, we maintained high utilization rates, excluding planned downtime at our Coffeyville Facility.	ü	ü	ü	ü
In the second half of 2018, we began loading UAN railcars at a new rail loading rack at our Coffeyville Fertilizer Facility providing unit train capabilities and further geographic reach at reduced per ton/mile distribution costs.			ü	ü
During the second quarter of 2018, the Coffeyville Fertilizer Facility completed its planned turnaround on-time and on-budget.	ü	ü	ü	ü
We are in the process of implementing a plan to construct and operate a backup oxygen unit at the Coffeyville Fertilizer Facility to reduce impacts of third party outages.		ü		ü

Industry Factors

Petroleum

The earnings and cash flows of the petroleum segment are primarily affected by the relationship between refined product prices and the prices for crude oil and other feedstocks that are processed and blended into refined products. The cost to acquire crude oil and other feedstocks and the price for which refined products are ultimately sold depend on factors beyond the petroleum segment's control, including the supply of and demand for crude oil, as well as, gasoline and other refined products which, in turn, depend on, among other factors, changes in domestic and foreign economies, weather conditions, domestic and foreign political affairs, production levels, the availability of imports, the marketing of competitive fuels and the extent of government regulation. Because the petroleum segment applies first-in first-out accounting to value its inventory, crude oil price movements may impact net income in the short term because of changes in the value of its unhedged inventory. The effect of changes in crude oil prices on the petroleum segment results of operations is partially influenced by the rate at which the process of refined products adjust to reflect these changes.

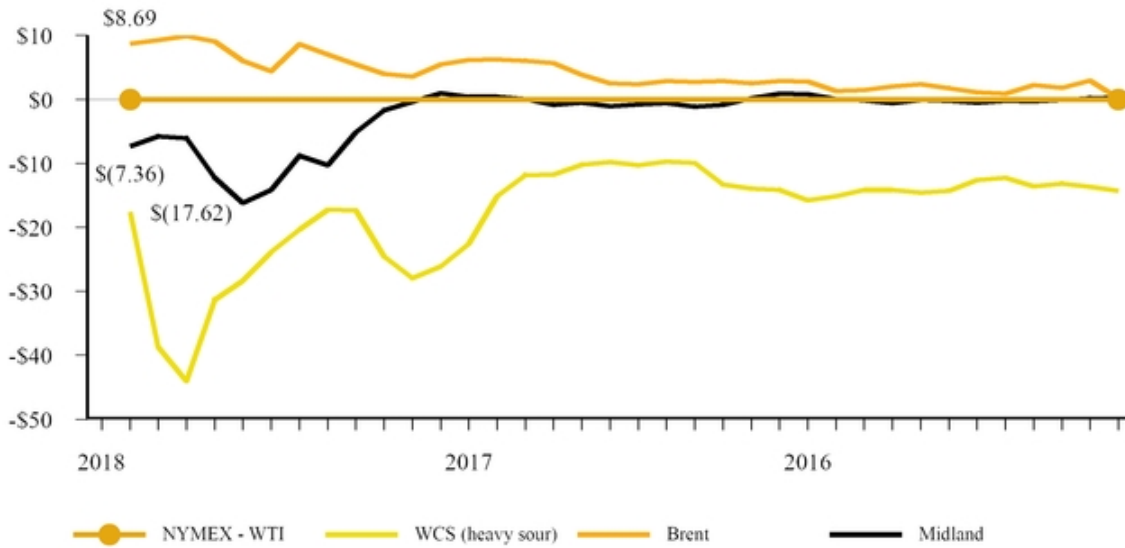
The prices of crude oil and other feedstocks and refined products are also affected by other factors, such as product pipeline capacity, system inventory local market conditions and the operating levels of competing refineries. Crude oil costs and the prices of refined products have historically been subject to wide fluctuations. Widespread expansion or upgrades of competitors' facilities, price volatility, international political and economic developments and other factors are likely to continue to play an important role in refining industry economics. These factors can impact, among other things, the level of inventories in the market, resulting in price volatility and a reduction in product margins. Moreover, the refining industry typically experiences seasonal fluctuations in demand for refined products, such as increases in the demand for gasoline during the summer driving season and for volatile seasonal exports of diesel from the United States Gulf Coast markets.

In addition to current market conditions, there are long-term factors that may impact the demand for refined products. These factors include mandated renewable fuels standards, proposed climate change laws and regulations and increased mileage standards for vehicles. The petroleum business is also subject to the RFS of the EPA, which requires blending "renewable fuels" with transportation fuels or purchase renewable identification numbers ("RINs"), in lieu of blending, by March 31, 2019 or otherwise be subject to penalties. Our cost to comply with RFS is dependent upon a variety of factors, which include the availability of RINs for purchase, the price at which RINs can be purchased, transportation fuel production levels, the mix of our products, as well as the fuel blending performed at our refineries and downstream terminals, all of which can vary significantly from period to period. Based upon recent market prices of RINs and current estimates related to the other variable factors, our estimated cost to comply with RFS is \$80 to \$90 million for 2019.

2018 Market Conditions

The tables below show relevant market indicators for the petroleum segment, on a per barrels basis, for the years ended December 31, 2018, 2017, and 2016:

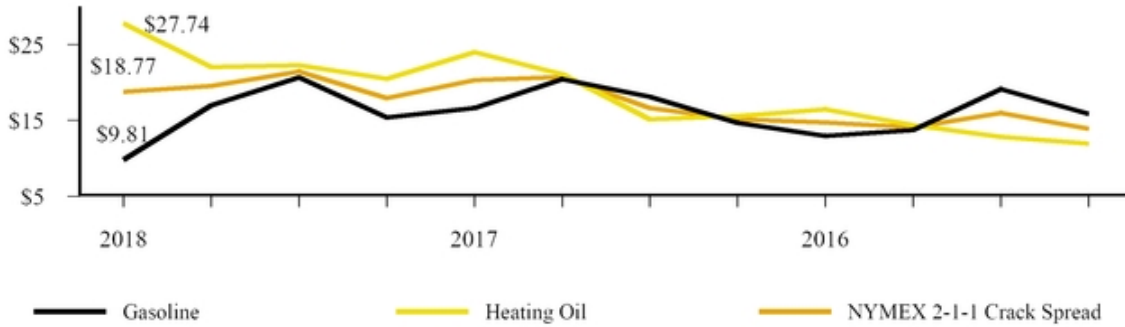
Crude Oil Differentials against WTI (1) (2)



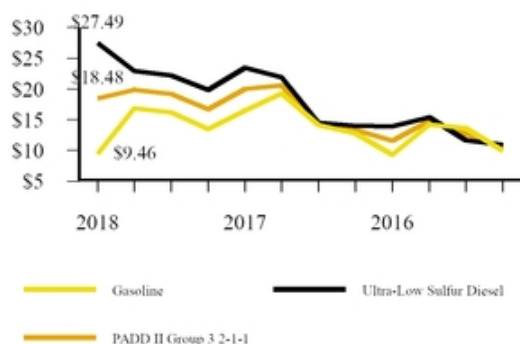
(1) The change over time in NYMEX - WTI, as reflected in the table above, is illustrated below.

(in \$/bbl)	Average 2016	At December 31, 2016	Average 2017	At December 31, 2017	Average 2018	At December 31, 2018
WTI	\$ 43.32	\$ 52.17	\$ 50.95	\$ 57.95	\$ 64.77	\$ 48.98

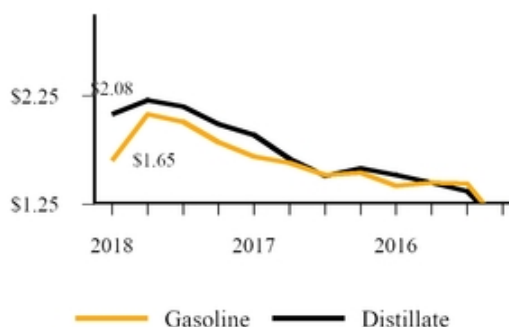
NYMEX Crack Spreads (2)



PADD II Group 3 Product Crack Spread (2)



Gasoline and Distillate Product Pricing (2)



(2) Information used in the charts was obtained from MarketView.

Nitrogen Fertilizer

In the nitrogen fertilizer segment, earnings and cash flows from operations are primarily affected by the relationship between nitrogen fertilizer product prices, utilization rates, operating costs and expenses.

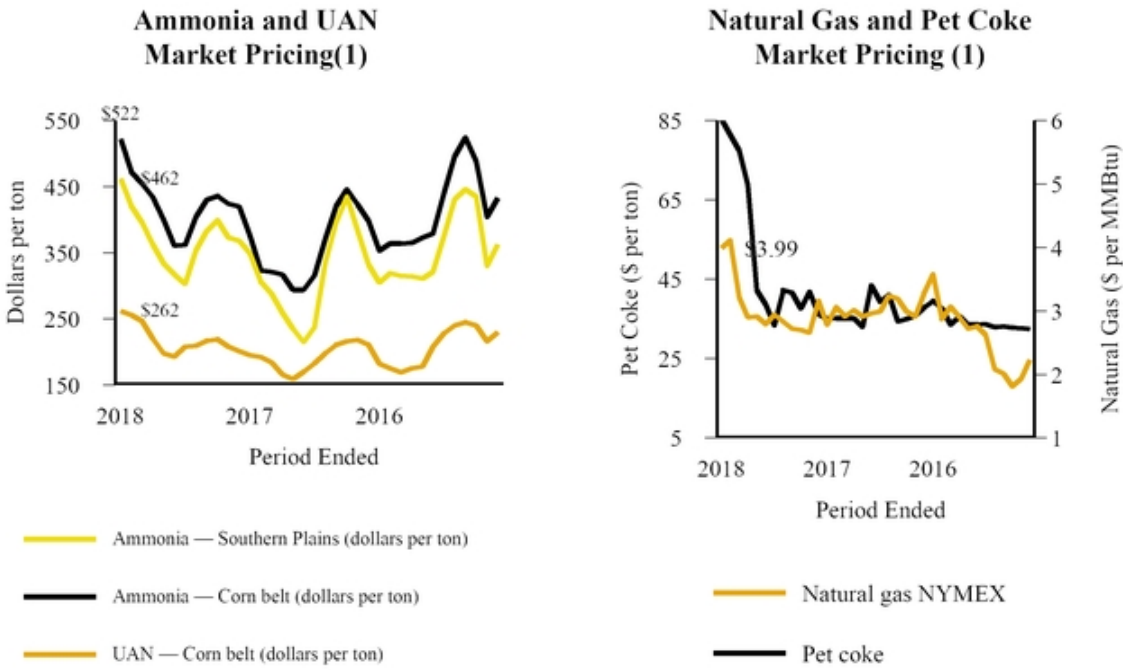
The price at which nitrogen fertilizer products are ultimately sold depends on numerous factors, including the global supply and demand for nitrogen fertilizer products which, in turn, depends on, among other factors, world grain demand and production levels, changes in world population, the cost and availability of fertilizer transportation infrastructure, weather conditions, the availability of imports, and the extent of government intervention in agriculture markets.

Nitrogen fertilizer prices are also affected by local factors, including local market conditions and the operating levels of competing facilities. An expansion or upgrade of competitors’ facilities, new facility development, political and economic developments and other factors are likely to continue to play an important role in nitrogen fertilizer industry economics. These factors can impact, among other things, the level of inventories in the market, resulting in price volatility and a reduction in product margins. Moreover, the industry typically experiences seasonal fluctuations in demand for nitrogen fertilizer products.

While there is risk of short-term volatility given the inherent nature of the commodity cycle, the long-term fundamentals for the U.S. nitrogen fertilizer industry remain intact. The nitrogen fertilizer segment views the anticipated combination of (i) increasing global population, (ii) decreasing arable land per capita, (iii) continued evolution to more protein-based diets in developing countries, (iv) sustained use of corn as feedstock for the domestic production of ethanol and (v) positioning at the lower end of the global cost curve will continue to provide a solid foundation for nitrogen fertilizer producers in the U.S over the longer term.

2018 Market Conditions

The table below shows relevant market indicators for the nitrogen fertilizer segment for the years ended December 31, 2016, 2017, and 2018:



(1) Information used in the charts was obtained from various third party sources including MarketView and the U.S. Energy Information Administration (“EIA”), amongst others.

Non-GAAP Measures

Our management uses certain non-GAAP performance measures to evaluate current and past performance and prospects for the future to supplement our GAAP financial information presented in accordance with U.S. GAAP. These non-GAAP financial measures are important factors in assessing our operating results and profitability and include the performance and liquidity measures defined below.

During the fourth quarter of 2018, management revised its internal and external use of non-GAAP measures. Earnings before interest, tax, depreciation and amortization (“EBITDA”) is now reconciled from net income (loss).

Effective January 1, 2019, the Company revised its accounting policy method for the costs of planned major maintenance activities (turnarounds) specific to the Petroleum Segment from being expensed as incurred (the direct expensing method) to the deferral method. Refer to Part II, Item 8, Note 3 (“Accounting Change - Turnaround Expenses”) for a further discussion of the impacts of this change in accounting policy. As a result of this change in accounting policy, the non-GAAP measures of Adjusted EBITDA, Petroleum Adjusted EBITDA, Nitrogen Fertilizer Adjusted EBITDA, Adjusted Net Income (Loss) and Direct Operating Expenses per Total Throughput Barrel net of Turnaround Expense are no longer being presented.

EBITDA - Consolidated net income (loss) before (i) interest expense, net, (ii) income tax expense (benefit) and (iii) depreciation and amortization expense.

Petroleum EBITDA and Nitrogen Fertilizer EBITDA - Segment net income (loss) before segment (i) interest expense, net, (ii) income tax expense (benefit), and (iii) depreciation and amortization.

Refining Margin - The difference between our Petroleum Segment net sales and cost of materials and other.

Refining Margin, excluding Inventory Valuation Impacts - Refining Margin adjusted to exclude the impact of current period market price and volume fluctuations on crude oil and refined product inventories recognized in prior periods. We record our commodity inventories on the first-in-first-out basis. As a result, significant current period fluctuations in market prices and the volumes we hold in inventory can have favorable or unfavorable impacts on our refining margins as compared to similar metrics used by other publicly-traded companies in the refining industry.

Refining Margin and Refining Margin, excluding Inventory Valuation Impacts, per Total Throughput Barrel - Refining Margin divided by the total throughput barrels during period, which is calculated as total throughput barrels per day times the number of days in the period.

Direct Operating Expenses per Throughput Barrel - Direct operating expenses for our Petroleum Segment divided by total throughput barrels for the period, which is calculated as total throughput barrels per day times the number of days in the period.

We present these measures because we believe they may help investors, analysts, lenders and ratings agencies analyze our results of operations and liquidity in conjunction with our U.S. GAAP results, including but not limited to our operating performance as compared to other publicly-traded companies in the refining industry, without regard to historical cost basis or financing methods and our ability to incur and service debt and fund capital expenditures. Non-GAAP measures have important limitations as analytical tools, because they exclude some, but not all, items that affect net earnings and operating income. These measures should not be considered substitutes for their most directly comparable U.S. GAAP financial measures. See “*Non-GAAP Reconciliations*” section included herein for reconciliation of these amounts.

Items or Events Impacting Comparability

Refer to the “Non-GAAP Measures” section above for discussion of the changes made during the fourth quarter of 2018 to the Company’s definition of certain non-GAAP measures.

Petroleum Segment

Starting with the fourth quarter of 2018, derivative gains or losses are now presented within Cost of Materials and Other. Prior period amounts have been conformed to the current presentation.

Coffeyville Refinery - During the first quarter of 2018, our Coffeyville, Kansas refinery (the “Coffeyville Refinery”) experienced an outage with its fluid catalytic cracking unit (“FCC”) lasting 48 days. The FCC outage had a significant negative impact on production and sales during that period.

Wynnewood Refinery - During 2017, the Wynnewood, Oklahoma (“Wynnewood Refinery”) underwent a turnaround on its hydrocracking unit in the first quarter of 2017 at a cost of \$13 million and the first phase of its planned facility turnaround, with the second phase scheduled for the first quarter of 2019, at a cost of approximately \$67 million, including \$43 million in the fourth quarter of 2017.

Nitrogen Fertilizer Segment

During the fourth quarter of 2018, the Partnership recognized a \$6 million business interruption insurance recovery associated with an outage at its Coffeyville, Kansas facility (the “Coffeyville Facility”) during 2017. The recovery is recorded in the Other Income (Expense) line item. Prior year amounts, which were not material, were conformed to the current year presentation.

Coffeyville Facility - During 2018, our Coffeyville, Kansas nitrogen fertilizer facility (the “Coffeyville Facility”) had a planned, full facility turnaround lasting 15 days and incurred approximately \$6 million in turnaround expense in the second quarter of 2018. During 2017, the Coffeyville Facility’s third-party air separation unit experienced a shut down. Paired with this shut down and subsequent operational challenges, the Coffeyville Facility experienced unplanned UAN downtime of 11 days during the second quarter of 2017.

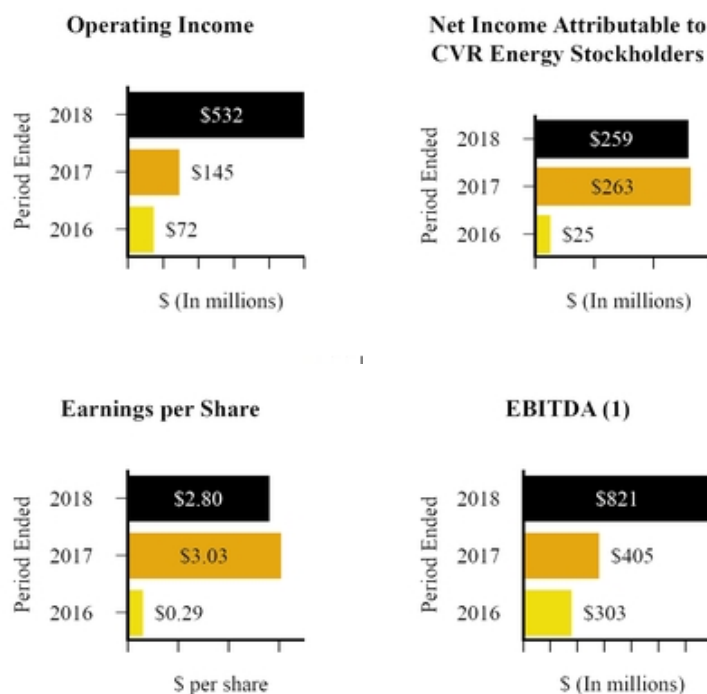
East Dubuque Facility - During 2017, our East Dubuque, Illinois nitrogen fertilizer facility (the “East Dubuque Facility”) had a planned, full facility turnaround lasting 14 days and incurred approximately \$3 million in turnaround expense in the third quarter of 2017. Additionally, during the fourth quarter of 2017, the East Dubuque Facility experienced unplanned downtime totaling 12 days.

Results of Operations

Consolidated

The following sections should be read in conjunction with the information outlined in the previous sections of this Item 7 and the financial statements and related notes thereto in Item 8. Our consolidated results of operations include certain other unallocated corporate activities and the elimination of intercompany transactions and therefore do not equal the sum of the operating results of the petroleum and nitrogen fertilizer segments.

Consolidated Financial Highlights



(1) See “Non-GAAP Reconciliations” section below for reconciliations of the non-GAAP measures shown above.

Operating Income (Loss) by Segment

(in millions)

Petroleum
Nitrogen Fertilizer
Other
Consolidated

	Year Ended December 31,		
	2018	2017	2016
Petroleum	\$ 544	\$ 172	\$ 60
Nitrogen Fertilizer	6	(10)	26
Other	(18)	(17)	(14)
Consolidated	\$ 532	\$ 145	\$ 72

EBITDA by Segment (1)

(in millions)	Year Ended December 31,		
	2018	2017	2016
Petroleum	\$ 748	\$ 351	\$ 225
Nitrogen Fertilizer	84	64	80
Other	(11)	(10)	(2)
Consolidated	<u>\$ 821</u>	<u>\$ 405</u>	<u>\$ 303</u>

(1) See “Non-GAAP Reconciliations” section below for reconciliations of the non-GAAP measures shown above.

Year Ended December 31, 2018 Compared to the Year Ended December 31, 2017

Overview - Net income attributable to CVR Energy decreased by \$4 million, or \$0.23 per share, from 2017 to 2018. Operating income improved \$387 million from 2017 to 2018 due to significantly improved segment market conditions and operations during 2018. These results were affected by an increase in tax expense of \$299 million and \$112 million in higher earnings attributable to noncontrolling interest given the better results at our business segments. Refer to our detailed discussion of the Petroleum and Nitrogen Fertilizer Segments contained in this section.

Income Taxes - In December 2017, we recognized a \$214 million tax benefit associated with the remeasurement of our deferred tax liabilities upon the enactment of the Tax Cut and Jobs Act (the “Tax Act”), resulting in a total tax benefit of \$220 million for 2017. In 2018, we recognized \$79 million in tax expense for an effective tax rate of 17.8%. Our effective tax rate was lower than prior years due to the reduction in statutory tax rate as part of the Tax Act.

Year Ended December 31, 2017 Compared to the Year Ended December 31, 2016

Overview - Net income attributable to CVR Energy increased by \$238 million, or \$2.74 per share, from 2016 to 2017 due to improved operating income driven primarily by an increase of \$112 million in the Petroleum Segment offset by a decrease of \$36 million in the Nitrogen Fertilizer Segment. The net operational improvement was further aided by an increased tax benefit of \$201 million while being offset by \$26 million in increased interest costs. Refer to our detailed discussion of the Petroleum and Nitrogen Fertilizer Segments contained in this section.

Interest Expense - Our 2017 results included \$26 million in additional interest costs compared to 2016 due to the full year of interest on the debt incurred for the acquisition of our East Dubuque Fertilizer Facility in April 2016.

Income Taxes - In December 2017, we recognized a \$214 million benefit associated with the remeasurement of our deferred tax liabilities upon the enactment of the Tax Act. No such benefit was recognized in 2016.

Petroleum Segment**Refining Throughput and Production Data by Refinery**

During the three months ended December 31, 2018, management revised its internal and external approach to calculating refinery throughput and production data to include ethanol and biodiesel consumed at the refineries. We believe this revised calculation of refinery throughput and production data is appropriate as it conveys more accurate data reflecting each refinery's operational performance for the period. Prior year balances have been conformed with the current year calculation. The adjustments to the calculation of refinery throughput and production had an immaterial impact on the data presented.

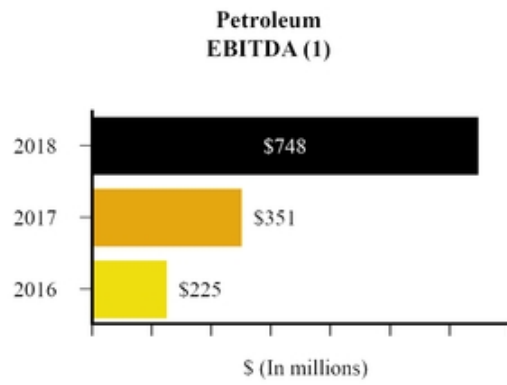
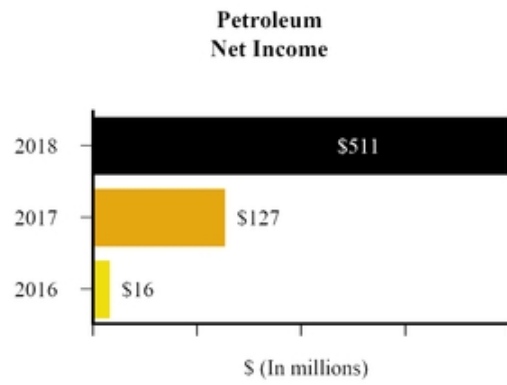
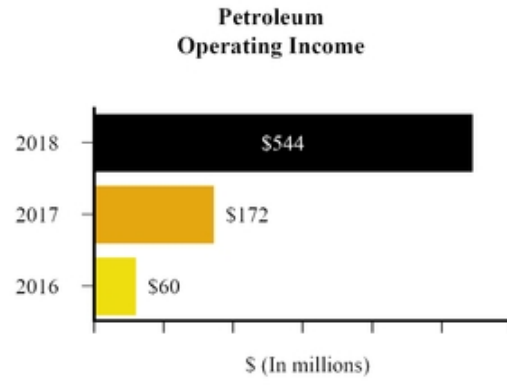
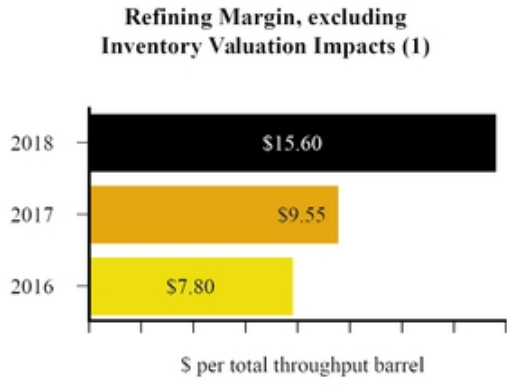
Throughput Data

(in bpd)	Year Ended December 31,		
	2018	2017	2016
Coffeyville			
Regional crude	31,350	34,805	38,386
WTI	66,952	84,460	57,937
Midland WTI	15,893	—	—
Condensate	4,992	2,169	8,356
Heavy Canadian	5,302	10,135	19,491
Other feedstocks and blendstocks	8,369	9,921	9,264
Wynnewood			
Regional crude	54,746	27,750	24,504
WTI	2,354	15,251	18,592
Midland WTI	10,332	29,045	30,157
Condensate	7,237	1,134	621
Heavy Canadian	—	—	—
Other feedstocks and blendstocks	5,068	3,511	3,164
Total throughput	212,595	218,181	210,472

Production Data

(in bpd)	Year Ended December 31,		
	2018	2017	2016
Coffeyville			
Gasoline	67,091	72,778	70,114
Distillate	56,307	59,593	55,790
Other liquid products	5,737	4,704	2,708
Solids	5,190	6,631	7,047
Wynnewood			
Gasoline	40,291	38,311	39,459
Distillate	33,442	30,816	29,302
Other liquid products	4,025	5,429	5,934
Solids	41	54	61
Total production	212,124	218,316	210,415
Liquid volume yield (as % of total throughput)	97.3%	96.9%	96.6%

Financial Highlights



(1) See “Non-GAAP Reconciliations” section below for reconciliations of the non-GAAP measures shown above.

Petroleum Operating Results

(in millions)	Year Ended December 31,		
	2018	2017	2016
Net sales	\$ 6,780	\$ 5,664	\$ 4,431
Cost of materials and other	5,602	4,875	3,779
Direct operating expenses	356	361	355
Selling, general and administrative expenses	77	77	72
Depreciation and amortization	196	177	165
Loss on asset disposals	5	2	—
Petroleum Operating income	\$ 544	\$ 172	\$ 60
Petroleum EBITDA (1)	\$ 748	\$ 351	\$ 225
Key Operating Metrics per Total Throughput Barrel			
Refining Margin (1)	\$ 15.18	\$ 9.92	\$ 8.47
Refining Margin, excluding Inventory Valuation Impacts (1)	\$ 15.60	\$ 9.55	\$ 7.80
Direct Operating Expenses (1)	\$ 4.59	\$ 4.53	\$ 4.61

(1) See “Non-GAAP Reconciliations” section below for reconciliations of the non-GAAP measures shown above.

Year Ended December 31, 2018 Compared to the Year Ended December 31, 2017

Overview - The Petroleum Segment’s operating results for 2018 compared to 2017 increased due primarily to a significant increase in our refining margin on a total throughput barrel basis. This increase was partially offset by a \$19 million increase in depreciation and amortization expense primarily relating to turnaround activity at the Wynnewood Refinery in 2017.

Refining Margin - For the year ended December 31, 2018 compared to the year ended December 31, 2017, refining margin increased significantly on a per total throughput barrel basis largely due to the increase in crack spreads and crude differentials realized during the period. The NYMEX 2-1-1 crack spread increased by \$1.23 per barrel, primarily due to an improved distillate crack of \$4.22 offset by a decrease in the gasoline crack of \$1.77. The Group 3 2-1-1 also improved in 2018 by \$1.60 compared to the same period last year, again driven largely by an increase in the distillate crack of \$4.74 offset by a decrease in the gasoline crack of \$1.52. Given our significant distillate production, we were able realize enhanced capture rates on the NYMEX and Group 3 crack spreads in 2018. Additionally, to our benefit in 2018, crude differentials were significantly higher in 2018 than in 2017. WCS and Midland crude supply availability and take-away constraints widened the discounts to WTI to \$26.38 and \$7.36 per barrel, respectively, for the year ended December 31, 2018, respectively, compared to \$12.69 and \$0.34, respectively, for the year ended December 31, 2017. In addition, refining margins benefited from a reduction in RFS compliance costs of \$189 million driven by the significant price decline in RINs throughout 2018.

Direct Operating Expenses - Direct operating expenses decreased overall; however, they increased per total throughput barrel due to lower throughput in 2018 compared to 2017. Our 2018 throughput rates were negatively impacted by the FCCU outage at the Coffeyville Refinery during the first quarter of 2018.

Year Ended December 31, 2017 Compared to the Year Ended December 31, 2016

Overview - The Petroleum Segment’s operating results for 2017 compared to 2016 increased due to an increase in our refining margin on a total throughput barrel basis. This increase was partially offset by a \$12 million increase in depreciation and amortization expense primarily relating to turnaround activity at the Coffeyville Refinery in 2016.

Refining Margin - Our refining margin per barrel of total throughput increased to \$9.92 for the year ended December 31, 2017 from \$8.47 for the year ended December 31, 2016 primarily due to the improvement in product margins. The benchmark 2-1-1 crack spread improved to \$18.19 per barrel for the year ended December 31, 2017 from \$14.66 per barrel for the year

ended December 31, 2016. Also contributing to the increase in refining margin and 2-1-1 crack spread per barrel was the improvement in the Group 3 gasoline basis to NYMEX gasoline to (\$1.83) per barrel for the year ended December 31, 2017 as compared to (\$3.62) per barrel in the comparable period in 2016. The per barrel improvement from 2016 to 2017 was offset by increased throughput in 2017. Additionally, the Petroleum Segment incurred an additional \$43 million in RFS compliance costs due primarily to unfavorable RINs pricing observed in 2017 compared to 2016.

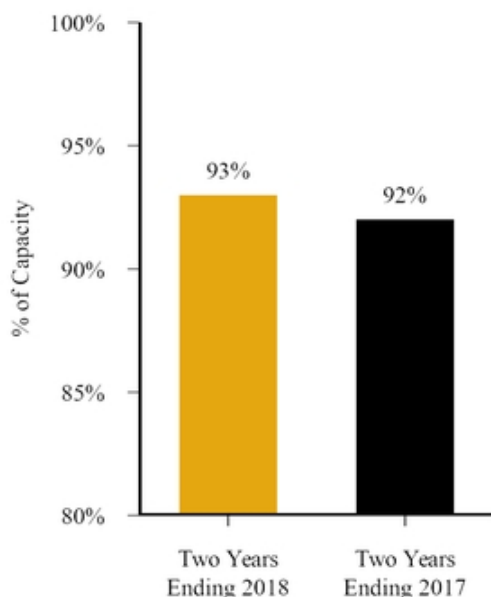
Nitrogen Fertilizer Segment

Utilization - The following tables summarize the ammonia utilization at the Coffeyville and East Dubuque facilities. Utilization is an important measure used by management to assess operational output at each of the Partnership’s facilities. Utilization is calculated as actual tons produced divided by capacity.

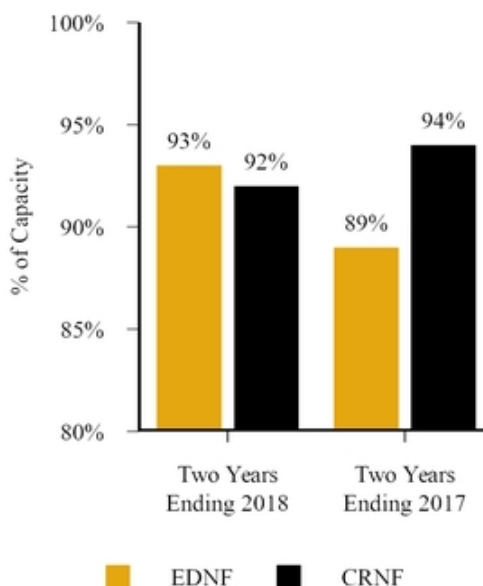
The Partnership presents our utilization on a two-year rolling average to take into account the impact of our current turnaround cycles on any specific period. The two-year rolling average is a more useful presentation of the long-term utilization performance of Nitrogen Fertilizer segment’s plants.

The Partnership present utilization solely on ammonia production rather than each nitrogen product as it provides a comparative baseline against industry peers and eliminates the disparity of plant configurations for upgrade of ammonia into other nitrogen products. With efforts primarily focused on Ammonia upgrade capabilities, this measure is the most meaningful in terms of management success in operations.

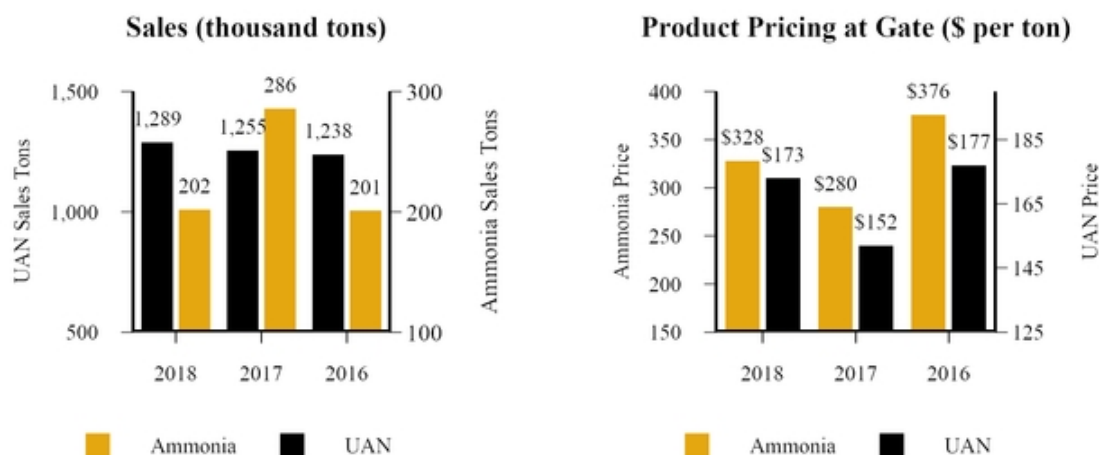
Consolidated Ammonia Utilization



Ammonia Utilization - by Facility



Sales and Pricing per Ton - Two of the Nitrogen Fertilizer Segment's key operating metrics are total sales for ammonia and UAN along with the product pricing per ton realized at the gate. Product pricing at gate represents net sales less freight revenue divided by product sales volume in tons and is shown in order to provide a pricing measure that is comparable across the fertilizer industry.



Production Volumes - Gross tons produced for ammonia represent the total ammonia produced, including ammonia produced that was upgraded into other fertilizer products. Net tons available for sale represent the ammonia available for sale that was not upgraded into other fertilizer products.

(in thousands of tons)	Year Ended December 31,		
	2018	2017	2016
Ammonia (gross produced)	794	815	694
Ammonia (net available for sale)	246	268	184
UAN	1,276	1,268	1,193

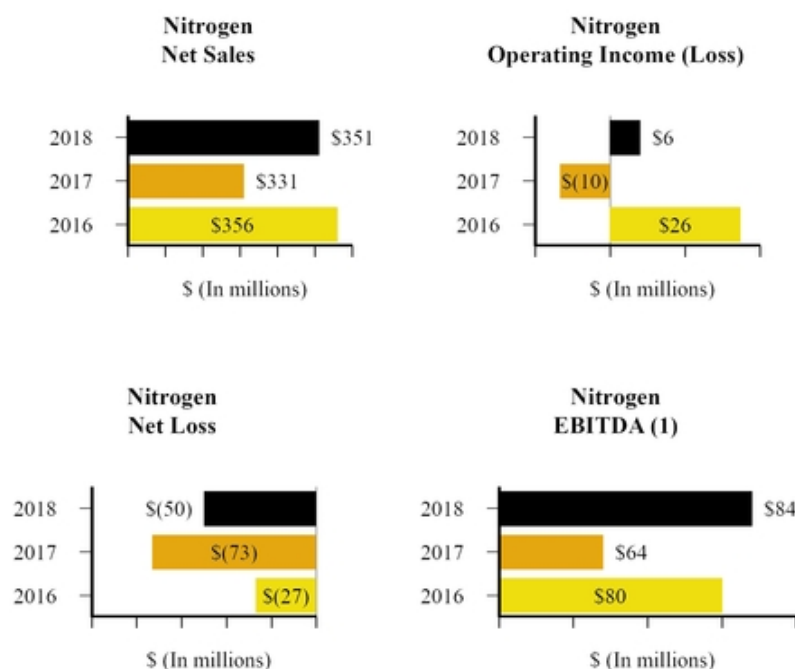
Feedstock. Our Coffeyville Facility utilizes a pet coke gasification process to produce nitrogen fertilizer. Our East Dubuque Facility uses natural gas in its production of ammonia.

Feedstock:	Year Ended December 31,		
	2018	2017	2016
Petroleum coke used in production (thousand tons)	463	488	514
Petroleum coke (dollars per ton)	\$ 28	\$ 17	\$ 15
Natural gas used in production (thousands of MMBtu)(1)	7,933	7,620	5,596
Natural gas used in production (dollars per MMBtu)(1)	\$ 3.28	\$ 3.24	\$ 2.96
Natural gas cost of materials and other (thousands of MMBtu)(1)	7,122	8,052	4,619
Natural gas cost of materials and other (dollars per MMBtu)(1)	\$ 3.15	\$ 3.26	\$ 2.87

(1) The feedstock natural gas shown above does not include natural gas used for fuel. The cost of fuel natural gas is included in direct operating expense (exclusive of depreciation and amortization).

Financial Highlights

The results of operations from the East Dubuque Merger are included for the post-acquisition period beginning April 1, 2016.



(1) See "Non-GAAP Reconciliations" section below for reconciliations of the non-GAAP measures shown above.

Year Ended December 31, 2018 Compared to the Year Ended December 31, 2017

Net Sales - Nitrogen Fertilizer net sales increased by \$20 million to \$351 million for the year ended December 31, 2018. This increase was benefited primarily from favorable pricing conditions in the second half of 2018 which contributed \$37 million in higher revenues. These price increases were offset by \$18 million in volume reductions in 2018 as compared to 2017.

The following table demonstrates the impact of changes in sales volumes and pricing for the primary components of net sales for the year ended December 31, 2018 as compared to the year ended December 31, 2017:

(in millions)	Price Variance	Volume Variance
UAN	\$ 27	\$ 6
Ammonia	11	(24)

The increase in UAN sales volumes for the year ended December 31, 2018 compared to the year ended December 31, 2017 was primarily attributable to higher production resulting from less planned and unplanned downtime and a larger amount of product available in inventory as of December 31, 2017. The decrease in ammonia sales volumes for 2018 compared to 2017 was partly attributable to more product being left available for sale as of December 31, 2018 due to a comparatively weaker fall 2018 application as compared to in 2017. Weather was also a significant factor contributing to the decrease in ammonia sales volumes. As a result of a wetter than expected fall season, customers were unable to apply ammonia, resulting in certain customers canceling ammonia contracts for delivery in the fourth quarter of 2018.

Operating Income (Loss) - For 2018, operating income was \$6 million compared to a loss of \$10 million in 2017. The \$16 million increase in operating income in 2018 is driven by improved market conditions discussed above. The net sales increase was offset by increased feedstock costs, due to higher pet coke, and purchased ammonia prices and higher direct operating expenses driven by an increase of \$3 million in turnaround expenses year-over-year. During 2018, our Coffeyville Fertilizer Facility used 5% less pet coke. The facility's cost of pet coke increased due to a higher proportion of pet coke being purchased from third parties at higher prices. The percentage of pet coke obtained from third parties increased from 34% for the year ended December 31, 2017 to 41% for the year ended December 31, 2018. The price for pet coke purchased increased by 51% and 56%, respectively, year-over-year, with third party coke increasing from \$37 to \$56 per ton and internally produced coke increasing from \$6 to \$10 per ton. Direct operating expenses were higher due to \$6 million being spent on the Coffeyville Fertilizer Facility's 2018 turnaround compared to \$3 million on the East Dubuque Facility's 2017 turnaround.

Net Loss - The Nitrogen Fertilizer segment net loss of \$50 million decreased significantly as compared to 2017 due to the operational and market improvements discussed above. Additionally, in December 2018, the Nitrogen Fertilizer segment recognized a business interruption insurance recovery of \$6 million related to outages at our Coffeyville Facility in 2017 and 2018.

Year Ended December 31, 2017 Compared to the Year Ended December 31, 2016

Net Sales - The Nitrogen Fertilizer Segment's net sales were \$331 million for the year ended December 31, 2017 compared to \$356 million for 2016. The decrease of \$25 million was attributable to negative impacts from weaker market conditions. Changes in ammonia and UAN volume did not have a material impact on net sales. The following table demonstrates the impact of changes in sales volumes and pricing for the primary components of net sales for 2017 as compared to 2016:

(in millions)	<u>Price Variance</u>	<u>Volume Variance</u>
UAN	\$ (24)	\$ (7)
Ammonia	(5)	(7)

Operating Income (Loss) - For 2017, operating income decreased by \$36 million as compared to 2016 to a loss of \$10 million. The significant decrease in operating income is primarily due to the unfavorable pricing conditions experienced in 2017. Also contributing in 2017 was an increase of \$16 million in depreciation and amortization expense primarily driven by the full year of depreciation recognized in 2017 associated with East Dubuque Fertilizer Facility in April 2016. These increased costs were offset by lower turnaround expense of \$4 million year-over-year.

Net Loss - The Nitrogen Fertilizer Segment's net loss of \$73 million in 2017 increased significantly compared to 2016 due to the operational and market conditions and operational expenses incurred in 2017. Additionally, in 2017, an increase of \$14 million in interest expense occurred due to a full year of interest on the long-term debt obtained as part of the East Dubuque Facility acquisition in April 2016.

Non-GAAP Reconciliations

Reconciliation of Net Income to EBITDA

(in millions)	Year Ended December 31,		
	2018	2017	2016
Net income	\$ 366	\$ 258	\$ 10
Add:			
Interest expense and other financing costs, net of interest income	102	109	83
Income tax expense (benefit)	79	(220)	(19)
Depreciation and amortization	274	258	229
EBITDA	\$ 821	\$ 405	\$ 303

Reconciliation of Petroleum Segment Net Income to Petroleum EBITDA

(in millions)	Year Ended December 31,		
	2018	2017	2016
Petroleum net income	\$ 511	\$ 127	\$ 16
Add:			
Interest expense and other financing costs, net of interest income	41	47	44
Depreciation and amortization	196	177	165
Petroleum EBITDA	\$ 748	\$ 351	\$ 225

Reconciliation of Petroleum Segment Gross Profit to Refining Margin

(in millions)	Year Ended December 31,		
	2018	2017	2016
Net sales	\$ 6,780	\$ 5,664	\$ 4,431
Cost of materials and other	5,602	4,875	3,779
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	356	361	355
Depreciation and amortization	192	173	162
Gross profit	\$ 630	\$ 255	\$ 135
Add:			
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	356	361	355
Depreciation and amortization	192	173	162
Refining margin	\$ 1,178	\$ 789	\$ 652
Exclude: (favorable) unfavorable inventory valuation impacts	32	(29)	(52)
Refining margin, excluding inventory valuation impacts	\$ 1,210	\$ 760	\$ 600

Reconciliation of Refining Margin and Refining Margin per Total Throughput Barrel

	Year Ended December 31,		
	2018	2017	2016
Total throughput barrels per day	212,595	218,181	210,472
Days in the period	365	365	366
Total throughput barrels	77,597,175	79,636,065	77,032,752
	Year Ended December 31,		
	2018	2017	2016
(in millions, except for per throughput barrel data)			
Refining margin	\$ 1,178	\$ 789	\$ 652
Divided by: total throughput barrels	78	80	77
Refining margin per total throughput barrel	\$ 15.18	\$ 9.92	\$ 8.47

	Year Ended December 31,		
	2018	2017	2016
(in millions, except for per throughput barrel data)			
Refining margin, excluding inventory valuation impacts	\$ 1,210	\$ 760	\$ 600
Divided by: total throughput barrels	78	80	77
Refining margin per total throughput barrel	\$ 15.60	\$ 9.55	\$ 7.80

Reconciliation of Petroleum Direct Operating Expenses

	Year Ended December 31,		
	2018	2017	2016
(in millions, except for per throughput barrel data)			
Direct operating expenses (exclusive of depreciation and amortization)	\$ 356	\$ 361	\$ 355
Divided by: total throughput barrels	78	80	77
Direct operating expenses per total throughput barrel	\$ 4.59	\$ 4.53	\$ 4.61

Reconciliation of Nitrogen Fertilizer Net Loss to Nitrogen Fertilizer EBITDA

	Year Ended December 31,		
	2018	2017	2016
(in millions)			
Nitrogen fertilizer net loss	\$ (50)	\$ (73)	\$ (27)
Add:			
Interest expense and other financing costs, net	62	63	49
Depreciation and amortization	72	74	58
Nitrogen fertilizer EBITDA	\$ 84	\$ 64	\$ 80

Liquidity and Capital Resources

Our principal source of liquidity has historically been cash from operations. Our principal uses of cash are for working capital, capital expenditures, funding our debt service obligations and paying dividends to our stockholders, as further discussed below.

We believe that our cash from operations and existing cash and cash equivalents, along with borrowings, as necessary, under the AB Credit Facility (“AB Credit Facility”) and Amended ABL Credit Facility (“Amended ABL Credit Facility”), will be sufficient to satisfy anticipated cash requirements associated with our existing operations for at least the next 12 months, and that we have sufficient cash resources to fund our operations for at least the next 12 months. However, our future capital expenditures and other cash requirements could be higher than we currently expect as a result of various factors. Additionally,

our ability to generate sufficient cash from our operating activities and secure additional financing depends on our future performance, which is subject to general economic, political, financial, competitive and other factors beyond our control.

Depending on the needs of our business, contractual limitations and market conditions, we may from time to time seek to issue equity securities, incur additional debt, issue debt securities, or otherwise refinance our existing debt. There can be no assurance that we will seek to do any of the foregoing or that we will be able to do any of the foregoing on terms acceptable to us or at all.

Cash Balances and Other Liquidity

As of December 31, 2018, we had consolidated cash and cash equivalents of \$668 million, \$394 million available under CVR Refining's Amended ABL Credit Facility and \$50 million available under CVR Partners' Asset Based Credit Facility.

(in millions)	December 31, 2018	December 31, 2017
CVR Partners:		
9.25% Senior Secured Notes due June 2023	\$ 645	\$ 645
6.50% Senior Notes due April 2021	2	2
Unamortized discount and debt issuance costs	(18)	(22)
Total CVR Partners Debt	<u>\$ 629</u>	<u>\$ 625</u>
CVR Refining:		
6.50% Senior Notes due November 2022	\$ 500	\$ 500
Capital lease obligations	44	45
Unamortized debt issuance cost	(3)	(4)
Current portion of capital lease obligations	(3)	(2)
Total CVR Refining Debt	<u>\$ 538</u>	<u>\$ 539</u>
Total Long-Term Debt	<u><u>\$ 1,167</u></u>	<u><u>\$ 1,164</u></u>

Amended ABL Credit Facility - On November 14, 2017, Coffeyville Resources LLC ("CRLLC"), CVR Refining, CVR Refining LLC ("Refining LLC") and each of the operating subsidiaries of Refining LLC (collectively, the "Credit Parties") entered into Amendment No. 1 to the Amended and Restated ABL Credit Agreement (the "Amendment") with a group of lenders and Wells Fargo Bank, National Association ("Wells Fargo"), as administrative agent and collateral agent. The Amendment amends certain provisions of the Amended and Restated ABL Credit Agreement, dated December 20, 2012, by and among Wells Fargo, the group of lenders party thereto and the Credit Parties (the "Existing Credit Agreement" and as amended by the Amendment, the "Amended and Restated ABL Credit Facility"), which was otherwise scheduled to mature in December 2017. The Amended and Restated ABL Credit Facility is a \$400 million asset-based revolving credit facility, with sub-limits for letters of credit and swingline loans of \$60 million and \$40 million, respectively. The Amended and Restated ABL Credit Facility also includes a \$200 million uncommitted incremental facility. The proceeds of the loans may be used for capital expenditures, working capital and general corporate purposes. The Amended and Restated Credit Facility matures in November 2022.

AB Credit Facility - The Nitrogen Fertilizer Segment has an AB Credit Facility, the proceeds of which may be used to fund working capital and other general corporate purposes. The AB Credit Facility is a senior secured asset-based revolving credit facility with an aggregate principal amount of availability of up to \$50.0 million with an incremental facility, which permits an increase in borrowings of up to \$25.0 million in the aggregate subject to additional lender commitments and certain other conditions. The AB Credit Facility matures in September 2021. CVR Partners was in compliance with all applicable covenants as of December 31, 2018.

2023 Notes - CVR Partners issued \$645 million aggregate principal amount of 9.250% Senior Secured Notes due 2023 (the "2023 Notes") in 2016. The 2023 Notes are guaranteed on a senior secured basis by all of the Nitrogen Fertilizer Segment's existing subsidiaries. At any time prior to June 15, 2019, we may on any of one or more occasions redeem up to 35% of the aggregate principal amount of the 2023 Notes issued under the indenture governing the 2023 Notes in an amount not greater than the net proceeds of one or more public equity offerings at a redemption price of 109.250% of the principal amount of the 2023 Notes, plus any accrued and unpaid interest to the date of redemption. Prior to June 15, 2019, we may on any one or more occasions redeem all or part of the 2023 Notes at a redemption price equal to the sum of: (i) the principal amount thereof, plus

(ii) the make whole premium, as defined in the indenture (the “2023 Indenture”) governing the 2023 Notes, at the redemption date, plus any accrued and unpaid interest to the applicable redemption date.

Upon the occurrence of certain change of control events as defined in the 2023 Indenture (including the sale of all or substantially all of the properties or assets of the Nitrogen Fertilizer Segment and its subsidiaries taken as a whole), each holder of the 2023 Notes will have the right to require that the Nitrogen Fertilizer Segment repurchase all or a portion of such holder’s 2023 Notes in cash at a purchase price equal to 101% of the aggregate principal amount thereof plus any accrued and unpaid interest to the date of repurchase.

2022 Notes - CVR Refining’s \$500 million aggregate principal amount of 6.5% Second Lien Senior Notes due 2022 (the “2022 Notes”) are unsecured and fully and unconditionally guaranteed by CVI, CVR Refining and each of Refining LLC’s existing domestic subsidiaries (other than the co-issuer, Coffeyville Finance) on a joint and several basis. The 2022 Notes mature on November 1, 2022, unless earlier redeemed or repurchased by the issuers. Interest is payable on the 2022 Notes semi-annually on May 1 and November 1 of each year, to holders of record at the close of business on April 15 and October 15, as the case may be, immediately preceding each such interest payment date.

Credit Agreement - On January 29, 2019, the Company entered into a credit agreement (the “Credit Agreement”) with Jefferies Finance LLC to provide a term loan credit facility with a maturity date of March 10, 2019. The borrowings under the Credit Agreement of \$105 million were used to fund a portion of the CVRR Unit Purchase. All amounts were repaid on February 11, 2019.

Capital Spending

We divide capital spending needs into two categories: maintenance and growth. Maintenance capital spending includes non-discretionary maintenance projects and projects required to comply with environmental, health and safety regulations. Growth capital projects generally involve an expansion of existing capacity and/or a reduction in direct operating expenses. We undertake growth capital spending based on the expected return on incremental capital employed.

Our total capital expenditures for the year ended December 31, 2018 along with our estimated expenditures for 2019, by segment, are as follows:

(in millions)	2018 Actual			2019 Estimate (1)					
	Maintenance	Growth	Total	Maintenance		Growth		Total	
				Low	High	Low	High	Low	High
Petroleum	\$ 62	\$ 17	\$ 79	\$ 125	\$ 140	\$ 55	\$ 60	\$ 180	\$ 200
Nitrogen Fertilizer	15	4	19	18	20	2	5	20	25
Other	4	—	4	10	15	—	—	10	15
Total	\$ 81	\$ 21	\$ 102	\$ 153	\$ 175	\$ 57	\$ 65	\$ 210	\$ 240

(1) Total 2019 estimated capital expenditures includes approximately \$50 to 60 million of growth related projects that will require additional approvals before commencement.

Our estimated capital expenditures are subject to change due to unanticipated changes in the cost, scope and completion time for capital projects. For example, we may experience increases/decreases in labor or equipment costs necessary to comply with government regulations or to complete projects that sustain or improve the profitability of the refineries or nitrogen fertilizer plants. We may also accelerate or defer some capital expenditures from time to time. Capital spending for CVR Partners is determined by the board of directors of its general partner.

Dividends to CVR Energy Stockholders

The Company has a dividend policy. Dividends are subject to change at the discretion of the board of directors. On February 20, 2019, the Company's board of directors declared a cash dividend for the fourth quarter of 2018 to the Company's stockholders of \$0.75 per share, or \$75 million in the aggregate. The dividend will be paid on March 11, 2019 to stockholders of record at the close of business on March 4, 2019.

Distributions to Unitholders

For the fourth quarter of 2018, the CVR Partners, upon approval by its general partner's board of directors on February 20, 2019, declared a distribution of \$0.12 per common unit, or \$14 million, payable on March 11, 2019 to unitholders of record as of March 4, 2019. Of this amount, we will receive approximately \$5 million with remaining amount payable to public unitholders.

Cash Flows

The following table sets forth our consolidated cash flows for the periods indicated below:

(in millions)	Year Ended December 31,		
	2018	2017	2016
Net cash provided by (used in):			
Operating activities	\$ 628	\$ 248	\$ 337
Investing activities	(108)	(276)	(271)
Financing activities	(334)	(226)	(95)
Net increase (decrease) in cash and cash equivalents	\$ 186	\$ (254)	\$ (29)

Operating Activities

Net cash flows provided by operating activities for the year ended December 31, 2018 were approximately \$628 million compared to \$248 million in 2017. The increase of \$380 million was due to the improved operating results from our business as illustrated by the increase of \$416 million in EBITDA from 2017 to 2018. This increase was partially offset by changes in working capital and other assets and liabilities during 2018.

Net cash flows provided by operating activities for the year ended December 31, 2017 decreased by \$89 million from \$337 million in 2016. This decrease was the result of significant cash expenditures to purchase RINs for the Petroleum Segment's RFS compliance which more than offset an increase in EBITDA of \$102 million year-over-year.

Investing Activities

Net cash used in investing activities for the year ended December 31, 2018 was \$108 million compared to \$276 million for the year ended December 31, 2017. The decrease as compared to the prior year is largely a result of the prior year \$76 million investment in a Midway Pipeline, LLC ("Midway") joint venture along with lower capital and turnaround expenditures in 2018.

Net cash used in investing activities for the year ended December 31, 2017 was \$276 million compared to \$271 million for the year ended December 31, 2016. The increase of cash used in investing activities was primarily due to \$64 million of cash paid in 2016 for the acquisition of the East Dubuque Fertilizer Facility and \$13 million in lower capital expenditures in 2017 compared to 2016. These decreases from 2016 to 2017 were partially offset by the investment in the Midway joint venture in 2017.

Financing Activities

Net cash used in financing activities for the year ended December 31, 2018 was \$334 million, as compared to \$226 million for the year ended December 31, 2017. The net cash used in financing activities for the year ended December 31, 2018 was primarily attributable to dividend payments to common stockholders of \$238 million and distributions to CVR Refining

common unitholders of \$93 million. The increase as compared to the prior year is largely a result of higher dividend and distribution payments being made in the current year by both CVR Energy and CVR Refining.

Net cash used in financing activities for the year ended December 31, 2017 was \$226 million compared to \$95 million for the year ended December 31, 2016. Dividend payments of \$174 million to our common stockholders and distributions of \$47 million and \$2 million to CVR Refining and CVR Partners common unitholders, respectively, were consistent year-over-year. The increase in net cash used in financing activities of \$131 million for the year ended December 31, 2017 compared to 2016 was primarily due to the \$133 million net proceeds received in 2016 from CVR Partners' issuance of 2023 Notes net of debt repayments in connection with the East Dubuque Fertilizer Facility acquisition.

Long-Term Commitments

In addition to long-term debt, we are required to make payments relating to various types of obligations. The following table summarizes our minimum payments as of December 31, 2018 relating to contractual obligations and other commercial commitments for the five-year period following December 31, 2018 and thereafter.

(in millions)	Payments Due by Period						Total
	2019	2020	2021	2022	2023	Thereafter	
Contractual Obligations							
Long-term debt (1)	\$ —	\$ —	\$ 2	\$ 500	\$ 645	\$ —	\$ 1,147
Operating leases (2)	24	20	18	16	12	26	116
Capital lease obligations (3)	3	3	3	3	3	29	44
Unconditional purchase obligations (4)	129	89	78	76	75	444	891
Interest payments (5)	98	98	98	92	33	9	428
Other long-term liabilities (6)	10	1	1	—	—	2	14
Total	\$ 264	\$ 211	\$ 200	\$ 687	\$ 768	\$ 510	\$ 2,640

(1) Consists of the 2021 Notes, the 2022 Notes and the 2023 Notes as of December 31, 2018.

(2) CVR Refining and CVR Partners lease various facilities and equipment.

(3) The amount includes commitments under capital lease arrangements for three leases which include a pipeline lease, a storage and terminal equipment lease and a bundled truck lease.

(4) The amount includes (i) commitments for petroleum products storage and petroleum transportation, (ii) electricity supply agreement, (iii) a product supply agreement, (iv) a pet coke supply agreement, (v) commitments related to our biofuels blending obligation and (vi) various agreements for gas and gas transportation.

(5) Interest payments for our long-term debt outstanding and capital lease obligations as of December 31, 2018 and commitment fees on the unutilized commitments of the ABL Credit Facility.

(6) The amount includes environmental liabilities and a standby letter of credit. Environmental liabilities represents our estimated payments required by federal and/or state environmental agencies. See Item 1 "Business Environmental Matters."

Off-Balance Sheet Arrangements

We do not have any "off-balance sheet arrangements" as such term is defined within the rules and regulations of the SEC.

Recent Accounting Pronouncements

Refer to Part II, Item 8, Note 2 ("Summary of Significant Accounting Policies"), of this Report for a discussion of recent accounting pronouncements applicable to us.

Critical Accounting Policies

We prepare our consolidated financial statements in accordance with GAAP. In order to apply these principles, management must make judgments, assumptions and estimates based on the best available information at the time. Actual results may differ based on the accuracy of the information utilized and subsequent events. Our accounting policies are described in the notes to our audited consolidated financial statements included elsewhere in this Report. Our critical accounting policies, which are listed below, could materially affect the amounts recorded in our consolidated financial statements.

- Goodwill impairment
- Income taxes
- Impairment of long-lived assets
- Derivative instruments and fair value of financial instruments

Refer to Part II, Item 8, Note 2 ("Summary of Significant Accounting Policies"), of this Report for a discussion of these, and other, accounting policies.

Item 8. Financial Statements and Supplementary Data**Report of Independent Registered Public Accounting Firm**

The Board of Directors and Stockholders of CVR Energy, Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of CVR Energy, Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2018 and 2017, the related consolidated statements of operations, changes in equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of December 31, 2018, based on the criteria established in the 2013 *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”), and our report dated February 21, 2019 (not included separately herein) expressed an unqualified opinion.

Change in accounting principle

As discussed in Note 3 to the consolidated financial statements, the Company has elected to change its accounting policy for the costs of planned major maintenance activities specific to the Petroleum Segment from being expensed as incurred using the direct expense method to the deferral method in 2016, 2017, and 2018.

Basis for opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 supporting the amounts and disclosures in the 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ GRANT THORNTON LLP

We have served as the Company’s auditor since 2013.

Kansas City, Missouri

February 21, 2019 (except for the effects of the change in accounting policy, as discussed in Note 3, as to which the date is June 12, 2019)

CVR Energy, Inc. and Subsidiaries
CONSOLIDATED BALANCE SHEETS

(in millions)	December 31,	
	2018	2017
ASSETS		
Current assets:		
Cash and cash equivalents (including \$415 and \$223, respectively, of consolidated variable interest entities (VIEs))	\$ 668	\$ 482
Accounts receivable of VIEs	169	179
Inventories of VIEs	380	369
Prepaid expenses and other current assets (including \$56 and \$30, respectively, of VIEs)	76	48
Total current assets	1,293	1,078
Property, plant and equipment, net of accumulated depreciation (including \$2,414 and \$2,528, respectively, of VIEs)	2,430	2,573
Other long-term assets (including \$270 and \$298, respectively, of VIEs)	277	302
Total assets	\$ 4,000	\$ 3,953
LIABILITIES AND EQUITY		
Current liabilities:		
Note payable and capital lease obligations of VIEs	\$ 3	\$ 2
Accounts payable (including \$317 and \$329, respectively, of VIEs)	320	334
Other current liabilities (including \$154 and \$181, respectively, of VIEs)	173	208
Total current liabilities	496	544
Long-term liabilities:		
Long-term debt and capital lease obligations of VIEs, net of current portion	1,167	1,164
Deferred income taxes	380	413
Other long-term liabilities (including \$7 and \$4, respectively, of VIEs)	14	9
Total long-term liabilities	1,561	1,586
Commitments and contingencies (See Note 11)		
Equity:		
CVR stockholders' equity:		
Common stock \$0.01 par value per share, 350,000,000 shares authorized, 100,629,209 shares issued (86,929,660 shares issued as of December 31, 2017)	\$ 1	\$ 1
Additional paid-in-capital	1,474	1,197
Retained deficit	(187)	(208)
Treasury stock, 98,610 shares at cost	(2)	(2)
Total CVR stockholders' equity	1,286	988
Noncontrolling interest	657	835
Total equity	1,943	1,823
Total liabilities and equity	\$ 4,000	\$ 3,953

The accompanying notes are an integral part of these consolidated financial statements.

CVR Energy, Inc. and Subsidiaries
CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Twelve Months Ended December 31,		
	2018	2017	2016
(in millions)			
Net sales	\$ 7,124	\$ 5,988	\$ 4,782
Operating costs and expenses:			
Cost of materials and other (exclusive of depreciation and amortization shown below)	5,683	4,953	3,867
Direct operating expenses (exclusive of depreciation and amortization shown below)	517	516	503
Depreciation and amortization	263	247	220
Cost of sales	\$ 6,463	\$ 5,716	\$ 4,590
Selling, general and administrative expenses	112	113	110
Depreciation and amortization	11	11	9
Loss on asset disposals	6	3	1
Operating income	\$ 532	\$ 145	\$ 72
Other income (expense):			
Interest expense, net	(102)	(109)	(83)
Other income, net	15	2	2
Income (loss) before income taxes	\$ 445	\$ 38	\$ (9)
Income tax expense (benefit)	79	(220)	(19)
Net income	\$ 366	\$ 258	\$ 10
Less: Net income (loss) attributable to noncontrolling interest	107	(5)	(15)
Net income attributable to CVR Energy stockholders	259	263	25
Basic and diluted earnings per share	\$ 2.80	\$ 3.03	\$ 0.29
Dividends declared per share	\$ 2.50	\$ 2.00	\$ 2.00
Weighted-average common shares outstanding:			
Basic and Diluted	92.5	86.8	86.8

The accompanying notes are an integral part of these consolidated financial statements.

CVR Energy, Inc. and Subsidiaries
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

	Common Stockholders						Noncontrolling Interest	Total Equity
	Shares Issued	Common Stock	Additional Paid-In Capital	Retained Deficit	Treasury Stock	Total CVR Stockholders' Equity		
(in millions, except share data)								
Balance at December 31, 2015	86,929,660	\$ 1	\$ 1,174	\$ (148)	\$ (2)	\$ 1,025	\$ 652	\$ 1,677
Dividends paid to CVR Energy stockholders	—	—	—	(174)	—	(174)	—	(174)
Distributions from CVR Partners to public unitholders	—	—	—	—	—	—	(41)	(41)
Impact of CVR Partners' common units issuance for the East Dubuque Merger, net of tax of \$20	—	—	23	—	—	23	293	316
Net income (loss)	—	—	—	25	—	25	(15)	10
Balance at December 31, 2016	86,929,660	1	1,197	(297)	(2)	899	889	1,788
Dividends paid to CVR Energy stockholders	—	—	—	(174)	—	(174)	—	(174)
Distributions from CVR Partners to public unitholders	—	—	—	—	—	—	(2)	(2)
Distributions from CVR Refining to public unitholders	—	—	—	—	—	—	(47)	(47)
Net income (loss)	—	—	—	263	—	263	(5)	258
Balance at December 31, 2017	86,929,660	1	1,197	(208)	(2)	988	835	1,823
Exchange offer impact	13,699,549	—	276	—	—	276	(192)	84
Dividends paid to CVR Energy stockholders	—	—	—	(238)	—	(238)	—	(238)
Distributions from CVR Refining to public unitholders	—	—	—	—	—	—	(93)	(93)
Other	—	—	1	—	—	1	—	1
Net income	—	—	—	259	—	259	107	366
Balance at December 31, 2018	<u>100,629,209</u>	<u>\$ 1</u>	<u>\$ 1,474</u>	<u>\$ (187)</u>	<u>\$ (2)</u>	<u>\$ 1,286</u>	<u>\$ 657</u>	<u>\$ 1,943</u>

The accompanying notes are an integral part of these consolidated financial statements.

CVR Energy, Inc. and Subsidiaries
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	Year Ended December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net income	\$ 366	\$ 258	\$ 10
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	274	258	229
Deferred income taxes	49	(220)	(83)
Loss on asset disposals	6	3	1
Share-based compensation	16	19	9
Other items	3	7	6
Changes in assets and liabilities:			
Accounts receivable	56	(27)	(48)
Inventories	(9)	(40)	(9)
Prepaid expenses and other current assets	(29)	34	(3)
Due to (from) parent	2	(16)	22
Accounts payable	(21)	85	22
Deferred revenue	11	1	(20)
Other current liabilities	(104)	(113)	203
Other long-term assets and liabilities	8	(1)	(2)
Net cash provided by operating activities	628	248	337
Cash flows from investing activities:			
Capital expenditures	(102)	(120)	(133)
Turnaround expenditures	(8)	(80)	(70)
Acquisition of CVR Nitrogen, net of cash acquired	—	—	(64)
Investment in affiliates, net of return of investment	—	(76)	(5)
Other investing activities	2	—	1
Net cash used in investing activities	(108)	(276)	(271)
Cash flows from financing activities:			
Proceeds on issuance of 2023 Notes, net of original issue discount	—	—	629
Principal and premium payments on 2021 Notes	—	—	(322)
Payments of revolving debt	—	—	(49)
Principal payments on CRNF credit facility	—	—	(125)
Dividends to CVR Energy's stockholders	(238)	(174)	(174)
Distributions to CVR Refining's noncontrolling interest holders	(93)	(47)	—
Distributions to CVR Partners' noncontrolling interest holders	—	(2)	(42)
Other financing activities	(3)	(3)	(12)
Net cash used in financing activities	(334)	(226)	(95)
Net increase (decrease) in cash and cash equivalents	186	(254)	(29)
Cash and cash equivalents, beginning of period	482	736	765
Cash and cash equivalents, end of period	\$ 668	\$ 482	\$ 736

The accompanying notes are an integral part of these consolidated financial statements.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(1) Organization and Nature of Business

Organization

CVR Energy, Inc. (“CVR Energy,” “CVR,” or the “Company”) is a diversified holding company primarily engaged in the petroleum refining and nitrogen fertilizer manufacturing industries through its holdings in CVR Refining, LP (“CVR Refining” or “CVRR”) and CVR Partners, LP (“CVR Partners”). CVR Refining is an independent petroleum refiner and marketer of high value transportation fuels. CVR Partners produces and markets nitrogen fertilizers in the form of urea ammonium nitrate (“UAN”) and ammonia. The Company’s operations include two business segments: the petroleum segment and the nitrogen fertilizer segment. CVR’s common stock is listed on the New York Stock Exchange (“NYSE”) under the symbol “CVI.”

In August 2018, CVR Energy completed an exchange offer whereby public unitholders tendered a total of 21,625,106 CVR Refining common units in exchange for a total of 13,699,549 shares of CVR Energy common stock (the “CVRR Unit Exchange”). In connection with the CVRR Unit Exchange, the Company incurred a total of \$0.7 million of issuance costs, which were capitalized to additional paid-in-capital. Further, due to the change in our ownership of CVR Refining, we recognized an increase of \$276 million to additional paid-in-capital and \$84 million in deferred tax assets. Following the CVRR Unit Exchange, Icahn Enterprises L.P. (“IEP”) and its affiliates owned approximately 71% of the Company’s outstanding common shares.

CVR Refining, LP

As of December 31, 2018, public security holders held approximately 16% of CVR Refining’s common units that were traded on the NYSE under “CVRR” (including units owned by IEP and its affiliates, representing 3.9% of CVR Refining’s outstanding common units). The Company and CVR Refining Holdings, LLC (“CVR Refining Holdings”), an indirect wholly-owned subsidiary of CVR, owned 100% of CVR Refining’s general partner interest and approximately 81% of CVR Refining’s outstanding limited partner interests. The consolidated results of operations and financial position of CVR Refining are reflected as CVR’s petroleum segment (the “Petroleum Segment”).

On January 17, 2019, the general partner of CVRR assigned to the Company its right to purchase all of the issued and outstanding CVRR common units not already owned by CVRR’s general partner or its affiliates. On January 29, 2019, the Company purchased all remaining CVRR common units not already owned by the Company or its affiliates for a cash purchase price of \$10.50 per unit (the “Call Price”), or approximately \$241 million in the aggregate (the “Public Unit Purchase”). In conjunction with the exercise of its call right for all CVRR common units not already owned by the Company or its affiliates, the Company entered into a purchase agreement with American Entertainment Properties Corporation (“AEP”) and IEP, pursuant to which, on January 29, 2019, all of the Common Units held by AEP and IEP were purchased by the Company for a cash price per unit equal to the Call Price, or approximately \$60 million in the aggregate (the “Affiliate Unit Purchase” together with the Public Unit Purchase, the “CVRR Unit Purchase”). The total purchase price of \$301 million was funded with approximately \$105 million in borrowings under a new credit agreement entered into by the Company on January 29, 2019 with the remaining amount being funded from the Company’s cash on hand. Refer to Note 6 (“Long-Term Debt”) for further information on the credit agreement.

Effective February 8, 2019, CVRR’s reporting obligations under the Exchange Act were suspended. Upon closing of the CVRR Unit Purchase, the Company executed a full and unconditional guarantee of CVRR’s senior notes due 2022 (the “2022 Senior Notes”). Pursuant to SEC regulations, the Company has elected to provide condensed consolidating financial statements in lieu of providing standalone CVRR financial statements. Refer to Note 15, (“Guarantor Financial Information”) for further discussion and the condensed consolidating financial statements.

CVR Partners, LP

As of December 31, 2018, public security holders held approximately 66% of CVR Partners’ outstanding common units that are traded on the NYSE under “UAN.” Coffeyville Resources, LLC (“CRLLC”), a wholly-owned subsidiary of CVR Energy, held approximately 34% of CVR Partners’ outstanding common units. In addition, CRLLC owns 100% of CVR

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Partners' general partner, CVR GP, LLC, which holds a general partner interest. The consolidated results of operations and financial position of CVR Partners are reflected as our nitrogen fertilizer segment (the "Nitrogen Fertilizer Segment").

Subsequent Events

The Company evaluated subsequent events, if any, that would require an adjustment to the Company's consolidated financial statements or require disclosure in the notes to the consolidated financial statements through the date of issuance of the consolidated financial statements. Where applicable, the notes to these consolidated financial statements have been updated to discuss all significant subsequent events which have occurred.

(2) Summary of Significant Accounting Policies

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company and its majority-owned direct and indirect subsidiaries. All intercompany accounts and transactions have been eliminated. The ownership interests of noncontrolling investors in the Company's subsidiaries are recorded as noncontrolling interests. CVR Energy has not recognized any other comprehensive income for the periods ended December 31, 2018, 2017 and 2016.

CVR Refining and CVR Partners are considered variable interest entities ("VIE"). As the 100% owner of the general partner for both CVR Refining and CVR Partners, the Company has the sole ability to direct the activities that most significantly impact the economic performance of both partnerships and is considered to be the primary beneficiary. In January 2019, following the CVRR Unit Purchase, CVR Refining is no longer considered to be a VIE, and will be accounted for as a wholly-owned subsidiary.

Investments in entities over which the Company has significant influence, but not control, are accounted for using the equity method of accounting. Income from equity method investments represents CVR Energy's proportionate share of net income generated by the equity method investees and is recorded in other income, net on the Company's Consolidated Statements of Operations.

Use of Estimates

These consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"), which requires management to make estimates and assumptions that affect the reported amounts and disclosure of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Estimates are reviewed on an ongoing basis, based on currently available information. Changes in facts and circumstances may result in revised estimates and actual results could differ from those estimates.

Cash and Cash Equivalents

Cash and cash equivalents include cash on hand and on deposit and investments in highly liquid money market accounts and debt instruments with original maturities of three months or less.

Accounts Receivable, net

Accounts receivable primarily consist of customer accounts receivable recorded at the invoiced amounts and generally do not bear interest. Also included within accounts receivable of the Nitrogen Fertilizer Segment are unbilled fixed price contracts recognized with the adoption of ASC 606 (defined below) as discussed further within the "Recent Accounting Pronouncements - Adoption of Revenue Recognition Standard" section to this note below.

Allowances for doubtful accounts are generally recorded when it becomes probable the receivable will not be collected and is booked to bad debt expense. The largest concentration of credit for any one customer at December 31, 2018 and 2017 was approximately 12% and 11%, respectively, of the net accounts receivable balance.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Inventories

Inventories consist primarily of domestic and foreign crude oil, blending stock and components, work-in-progress, fertilizer products, and refined fuels and by-products. All inventories are valued at the lower of the first-in, first-out (“FIFO”) cost, or net realizable value. Refinery unfinished and finished products inventory values were determined using the ability-to-bear methodology. Other inventories, including other raw materials, spare parts, and supplies, are valued at the lower of moving-average cost, which approximates FIFO, or net realizable value. The cost of inventories includes inbound freight costs. At December 31, 2018 and 2017, inventories on the Consolidated Balance Sheets related to the Nitrogen Fertilizer segment included depreciation of approximately \$6 million and \$4 million, respectively.

Inventories consisted of the following:

(in millions)	December 31,	
	2018	2017
Finished goods	\$ 186	\$ 172
Raw materials	105	98
In-process inventories	12	22
Parts and supplies	77	77
Total Inventories	\$ 380	\$ 369

Certain reclassifications have been made on the Consolidated Balance Sheets to reclassify precious metals from inventory to the property, plant and equipment financial statement line item in the amount of \$15 million for the year ended December 31, 2018. The prior year balance of \$16 million has been reclassified to conform with the current year presentation.

Property, Plant and Equipment

Additions to property, plant and equipment, including capitalized interest and certain costs allocable to construction and property purchases, are recorded at cost. Expenditures for improvements that increase economic benefit or returns and/or extend useful life are capitalized. Depreciation is computed using the straight-line method over the estimated useful lives of the various classes of depreciable assets. The lives used in computing depreciation for significant asset classes are as follows:

<u>Asset</u>	<u>Range of Useful Lives, in Years</u>
Land improvements	15 to 30
Buildings	20 to 30
Machinery and equipment	5 to 30
Other	5 to 30

Property, plant and equipment consisted of the following:

(in millions)	December 31,	
	2018	2017
Land and improvements	\$ 43	\$ 47
Buildings	82	83
Machinery and equipment	3,739	3,719
Other	203	155
	4,067	4,004
Less: Accumulated depreciation	1,637	1,431
Total Property, plant and equipment, net	\$ 2,430	\$ 2,573

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Leasehold improvements and assets held under capital leases are depreciated or amortized on the straight-line method over the shorter of the contractual lease term or the estimated useful life of the asset. Expenditures for routine maintenance and repair costs are expensed when incurred. Such expenses are reported in direct operating expenses in the Company's Consolidated Statements of Operations.

During the period, the Petroleum Segment began actively marketing certain assets with a carrying value of \$33 million at December 31, 2018. The carrying value of these assets held for sale were included in Other Long-term Assets on the Company's Condensed Consolidated Balance Sheets. No loss has been recognized upon designation of these assets as held for sale.

Deferred Financing Costs

Lender and other third-party costs associated with debt issuances are deferred and amortized to interest expense and other financing costs using the effective-interest method over the life of the debt. Deferred financing costs related to line-of-credit arrangements are amortized using the straight-line method through the termination date of the facility. The deferred financing costs are included net within long-term debt and in other long-term assets for the line-of-credit arrangements where no debt balance exists.

Impairment of Long-Lived Assets

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to estimated undiscounted future net cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated undiscounted future net cash flows, an impairment charge is recognized for the amount by which the carrying amount of the assets exceeds their fair value. Assets to be disposed of by sale are reported at the lower of their carrying value or fair value less cost to sell.

Goodwill represents the excess of the cost of an acquired entity over the fair value of the assets acquired less liabilities assumed. Intangible assets are assets that lack physical substance (excluding financial assets). Goodwill acquired in a business combination and intangible assets with indefinite useful lives are not amortized, and intangible assets with finite useful lives are amortized. Goodwill and intangible assets not subject to amortization are tested for impairment annually or more frequently if events or changes in circumstances indicate the asset might be impaired. November 1 of each year is used as the annual valuation date for its goodwill impairment test.

The Company performed its annual impairment review of goodwill for 2018, 2017 and 2016 and concluded there were no impairments. For the period ended December 31, 2017, the fair value of the Coffeyville, Kansas nitrogen fertilizer business (the "Coffeyville Fertilizer Facility") reporting unit exceeded its carrying value by approximately 12% based upon the results of the Partnership's goodwill impairment test. For the period ended December 31, 2018, due to improved market conditions and financial forecasts, the amount by which fair value exceeds the carrying value for the Coffeyville Fertilizer Facility reporting unit is significant.

Loss Contingencies

In the ordinary course of business, the Company may become party to lawsuits, administrative proceedings and governmental investigations, including environmental, regulatory and other matters. The outcome of these matters cannot always be predicted accurately, but the Company accrues liabilities for these matters if the Company has determined that it is probable a loss has been incurred and the loss can be reasonably estimated.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Environmental, Health & Safety (“EHS”) Matters

The Petroleum and Nitrogen Fertilizer Segments are subject to various federal, state and local EHS rules and regulations. Liabilities related to EHS matters are recognized when the related costs are probable and can be reasonably estimated. Estimates of these costs are based upon currently available facts, internal and third party assessments of contamination, available remediation technology, site-specific costs, and currently enacted laws and regulations. In reporting environmental liabilities, no offset is made for potential recoveries. Loss contingency accruals, including those for environmental remediation, are subject to revision as further information develops or circumstances change and such accruals can take into account the legal liability of other parties. Environmental expenditures are capitalized at the time of the expenditure when such costs provide future economic benefits.

Revenue Recognition

The Company recognizes revenue based on consideration specified in contracts or agreements with customers when performance obligations are satisfied by transferring control over products or services to a customer. The adoption of ASC 606, described below, did not materially change the Company’s revenue recognition patterns, which are described below by reportable segment:

- *Petroleum Segment* - The vast majority of Petroleum Segment contracts contain pricing that is based on the market price for the product at the time of delivery. Obligations to deliver product volumes are typically satisfied and revenue is recognized when control of the product transfers to customers. Concurrent with the transfer of control, the right to payment for the delivered product is received, the customer accepts the product and the customer has significant risks and rewards of ownership of the product. Payment terms require customers to pay shortly after delivery and do not contain significant financing components. Any pass-through finished goods delivery costs reimbursed by customers are reported in net sales, while an offsetting expense is included in cost of materials and other. Non-monetary product exchanges and certain buy/sell transactions which are entered into in the normal course of business are included on a net cost basis in operating expenses on the Consolidated Statements of Operations.
- *Nitrogen Fertilizer Segment* - Revenue is recognized when our customers receive control of the product. The adoption of ASC 606 resulted in the recognition of deferred revenue which represents customer prepayments under contracts that guarantee a price and supply of nitrogen fertilizer product in quantities expected to be delivered in the normal course of business.

Other considerations - For both segments, excise and other taxes collected from customers and remitted to governmental authorities are excluded from reported revenues.

Cost Classifications

Cost of materials and other (exclusive of depreciation and amortization) includes cost of crude oil, other feedstocks, blendstocks, purchased refined products, pet coke expenses, renewable identification numbers (“RINs”) expenses, derivative gain or losses and freight and distribution costs. Direct operating expenses (exclusive of depreciation and amortization) consist primarily of energy and other utility costs, direct costs of labor, including applicable share-based compensation expense, property taxes, plant-related maintenance services, including turnaround, and environmental and safety compliance costs as well as catalyst and chemical costs. Selling, general and administrative expenses consist primarily of labor and other direct expenses associated with the Company’s corporate activities, including accounting, finance, information technology, human resources, legal and other related administrative functions. For the Company’s Nitrogen Fertilizer Segment, each of these financial statement line items are also impacted by changes in inventory balances.

Certain reclassifications have been made within the Consolidated Statements of Operations to include gain (loss) on derivatives within the Cost of Materials and Other financial statement line item. Prior year balances have been reclassified to conform with the current years presentation. The reclassifications from gain (loss) on derivatives to cost of materials and other totaled \$146 million, \$(70) million, and \$(20) million for the years ended December 31, 2018, 2017, and 2016, respectively.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Derivatives and Fair Value of Financial Instruments

The Petroleum Segment uses futures contracts, options, and forward contracts primarily to reduce exposure to changes in crude oil and finished goods product prices to provide economic hedges of inventory positions. These derivative instruments do not qualify as hedges for hedge accounting purposes under ASC Topic 815, *Derivatives and Hedging*, and accordingly are recorded at fair value at the end of each reporting period based on quoted market prices. The Nitrogen Fertilizer Segment may enter into forward contracts with fixed delivery prices to purchase portions of its natural gas requirements. These natural gas contracts are not treated as derivative under normal purchase and normal sale exclusions. Accordingly, the fair value of these contracts are not recorded at the end of each reporting period. Refer to Note 8 (“Derivative Financial Instruments”) for further discussion of the Company’s derivative activity.

Other financial instruments consisting of cash and cash equivalents, accounts receivable, and accounts payable are carried at cost, which approximates fair value, as a result of the short-term nature of the instruments. Refer to Note 8 (“Derivative Financial Instruments”) for further fair value disclosures.

Share-Based Compensation

The Company accounts for share-based compensation in accordance with ASC Topic 718, *Compensation — Stock Compensation* (“ASC 718”). Currently, all of the Company’s share-based compensation awards, including those issued by CVR Refining and CVR Partners, are liability-classified and are measured at fair value at the end of each reporting period based on the applicable closing unit price. Compensation expense will fluctuate based on changes in the applicable share or unit prices and expense reversals resulting from employee terminations prior to award vesting. Additionally, the Company has issued certain performance unit awards. The fair value of these performance unit awards is recognized as compensation expense only if the attainment of the performance conditions is considered probable. Uncertainties involved in this estimate include continued employment requirements and whether or not the performance conditions will be attained. The performance objectives are set in accordance with approved levels of the business plan for the fiscal year during the performance cycle and therefore are considered reasonably possible of being achieved. If this assumption proves not to be true and the awards do not vest, compensation expense recognized during the performance cycle will be reversed.

Income Taxes

Income taxes are accounted for utilizing the asset and liability approach. Under this method, deferred tax assets and liabilities are recognized for the anticipated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis. Deferred amounts are measured using enacted tax rates expected to apply to taxable income in the year those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

Earnings Per Share

There were no dilutive awards outstanding during the years ended December 31, 2018, 2017, and 2016.

Recent Accounting Pronouncements - Adoption of New Accounting Standard

On January 1, 2018, the Company adopted Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 606, “Revenue from Contracts with Customers” (“ASC 606”) using the modified retrospective method applied to contracts which were not completed as of January 1, 2018. The standard was applied prospectively and the comparative information for 2017 has not been restated and continues to be reported under the accounting standards in effect for the prior period. The Company did not identify any material differences in its existing revenue recognition methods that require modification under the new standard and, as such, a cumulative effect adjustment of applying the standard using the modified retrospective method was not recorded.

The adoption of ASC 606 resulted in changes to how the Nitrogen Fertilizer Segment accounts for prepaid contracts. Prior to the adoption of ASC 606, deferred revenue was recorded upon customer prepayment, however, under the new revenue standard, deferred revenue and an associated receivable is recorded at the point in time in which a prepaid contract is legally enforceable and the associated right to consideration is unconditional. Due to this change, the adoption of ASC 606 resulted in

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

a \$21 million increase to deferred revenue and accounts receivable as of January 1, 2018. After the effect of adoption of the new revenue standard, deferred revenue and accounts receivable of CVR Partners were \$34 million and \$31 million, respectively, as of January 1, 2018.

In addition to the change noted above, the adoption of ASC 606 also resulted in a change in accounting for fees collected from certain customers by the Petroleum Segment that were previously recorded as a reduction to cost of materials and other. The particular fee, the Oil Spill Liability Tax, relates to taxes imposed on refineries as part of the crude oil procurement process, is charged to certain of CVR Refining's customers on product sales and is required under the new standard to be included in the transaction price. The impact of the change in presentation was an increase of \$2 million to net sales and cost of materials and other for the period ended December 31, 2018.

The following table displays the effect of the changes to the Consolidated Balance Sheet as of December 31, 2018 for the adoption of ASC 606. The Company's Consolidated Statement of Cash Flows was not impacted due to the adoption of ASC 606 for the period ended December 31, 2018.

(in millions)	December 31, 2018		
	As Reported	Balances without adoption of ASC 606	Effect of change
Assets			
Accounts Receivable	\$ 169	\$ 124	\$ 45
Liabilities			
Deferred Revenue (1)	\$ 69	\$ 24	\$ 45

(1) Deferred Revenues are recorded within the Other Current Liabilities financial statement line item.

Recent Accounting Pronouncements - New Accounting Standards Issued But Not Yet Implemented

In February 2016, the FASB issued ASU No. 2016-02, "Leases" ("ASU 2016-02"), creating a new topic, FASB ASC Topic 842, "Leases" ("Topic 842"), which supersedes lease requirements in FASB ASC Topic 840, "Leases". The new standard revises accounting for operating leases by a lessee, among other changes, and requires a lessee to recognize a liability related to future lease payments and an asset representing its right to use of the underlying asset for the lease term on the balance sheet. Quantitative and qualitative disclosures, including disclosures regarding significant judgments made by management, will be required.

Topic 842 was adopted by the FASB as of January 1, 2019 electing the option to apply the transition provisions at the adoption date instead of the earliest comparative period presented in the financial statements. In connection with the adoption of ASC 842, the following elections were made in the application of Topic 842:

- Under the short-term lease exception provided for in the standard, ROU assets and related lease liabilities for leases with a term greater than one year were and will be recognized;
- The accounting treatment for existing land easements was carried forward;
- Lease and non-lease components were and will not be bifurcated for all of the Company's asset groups; and
- The portfolio approach was and will be used in the selection of the discount rate used to calculate minimum lease payments and the related ROU asset and operating lease liability amounts.

Adoption of Topic 842 resulted in the recording of additional ROU assets and lease liabilities of approximately \$53 million, in addition to the recognition of a finance lease asset and obligation of approximately \$26 million, as of January 1, 2019. The standard will not materially affect the Company's consolidated net earnings or cash flows.

In August 2018, the FASB issued ASU 2018-15, Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40). This ASU addresses customer's accounting for implementation costs incurred in a cloud computing arrangement that is a service contract and also adds certain disclosure requirements related to implementation costs incurred for internal-use software and cloud computing arrangements. The amendment aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

obtain internal-use software (and hosting arrangements that include an internal-use software license). This standard is effective for the Company beginning January 1, 2020, with early adoption permitted. The amendments in this standard can be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. The Company is evaluating the effect of adopting this new accounting guidance on its consolidated financial statements, but does not expect adoption will have a material impact on the Company's consolidated financial position or results of operations.

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820). The ASU eliminates such disclosures as the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy. Certain disclosures are required to be applied on a retrospective basis and others on a prospective basis. This standard is effective for the Company beginning January 1, 2020, with early adoption permitted. The Company is evaluating the effect of adopting this new accounting guidance, but does not expect adoption will have a material impact on the Company's disclosures.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

(3) Accounting Change - Turnaround Expenses

Effective January 1, 2019, the Company revised its accounting policy method for the costs of planned major maintenance activities (turnarounds) specific to the Petroleum Segment from being expensed as incurred (the direct expensing method) to the deferral method. Turnarounds are planned shutdowns of refinery processing units for significant overhaul and refurbishment. Under the deferral method, the costs of turnarounds are deferred and amortized on a straight-line basis over a four years-year period of time, which represents the estimated time until the next turnaround occurs. The new method of accounting for turnarounds is considered preferable as it is more consistent with the accounting policy of our peer companies and better reflects the economic substance of the benefits earned from turnaround expenditures. The consolidated balance sheet for the periods ended December 31, 2018 and 2017, the related consolidated statement of operations, statement of changes in equity and statement of cash flows for each of the three years in the period ended December 31, 2018 have been recast to reflect our new accounting policy. Turnaround costs, and related accumulated amortization, are included in the consolidated balance sheet as Other long-term assets. The amortization expense related to turnaround costs is included in depreciation and amortization in the consolidated statement of operations. CVR Partners will continue to follow the direct expensing method, therefore this change had no impact on CVR Partners' financial information.

The following presents the financial statement line items impacted by the turnaround accounting change for each of the periods presented within these consolidated financial statements.

Effect of Turnaround Accounting Change on Consolidated Balance Sheet as of December 31, 2018 and 2017

(in millions)	December 31, 2018			December 31, 2017		
	As Previously Reported	Effect of Turnaround Accounting Change	As Stated	As Previously Reported	Effect of Turnaround Accounting Change	As Stated
Property, plant and equipment, net of accumulated depreciation	\$ 2,445	\$ (15)	\$ 2,430	\$ 2,588	\$ (15)	\$ 2,573
Other long-term assets (1)	169	108	277	141	161	302
Total assets	\$ 3,907	\$ 93	\$ 4,000	\$ 3,807	\$ 146	\$ 3,953
Long-term liabilities:						
Deferred income taxes (2)	\$ 362	\$ 18	\$ 380	\$ 386	\$ 27	\$ 413
Total long-term liabilities	1,543	18	1,561	1,559	27	1,586
Equity:						
CVR stockholders' equity:						
Additional paid-in-capital	\$ 1,473	\$ 1	\$ 1,474	\$ 1,197	\$ —	\$ 1,197
Retained deficit	(226)	39	(187)	(277)	69	(208)
Total CVR stockholders' equity	\$ 1,246	\$ 40	\$ 1,286	\$ 919	\$ 69	\$ 988
Noncontrolling interest	622	35	657	785	50	835
Total equity	\$ 1,868	\$ 75	\$ 1,943	\$ 1,704	\$ 119	\$ 1,823
Total liabilities and equity	\$ 3,907	\$ 93	\$ 4,000	\$ 3,807	\$ 146	\$ 3,953

(1) This represents the capitalized turnaround asset recognized due to the turnaround policy change.

(2) This represents the increase in deferred tax liability due to the recognition of the capitalized turnaround asset.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Effect of Turnaround Accounting on Consolidated Statement of Operations and Consolidated Statement of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016

(in millions)	Year Ended December 31,								
	2018			2017			2016		
	As Previously Reported	Effect of Turnaround Accounting Change	As Stated	As Previously Reported	Effect of Turnaround Accounting Change	As Stated	As Previously Reported	Effect of Turnaround Accounting Change	As Stated
Consolidated Statement of Operations									
Direct operating expenses	\$ 523	\$ (6)	\$ 517	\$ 598	\$ (82)	\$ 516	\$ 541	\$ (38)	\$ 503
Depreciation and amortization	202	61	263	203	44	247	184	36	220
Income tax expense (benefit)	89	(10)	79	(217)	(3)	(220)	(20)	1	(19)
Net income	\$ 411	\$ (45)	\$ 366	\$ 217	\$ 41	\$ 258	\$ 9	\$ 1	\$ 10
Less: Net income attributable to noncontrolling interest	122	(15)	107	(18)	13	(5)	(16)	1	(15)
Net income attributable to CVR Energy stockholders	\$ 289	\$ (30)	\$ 259	\$ 235	\$ 28	\$ 263	\$ 25	\$ —	\$ 25
Consolidated Statement of Cash Flows									
Net cash provided by operating activities	\$ 620	\$ 8	\$ 628	\$ 168	\$ 80	\$ 248	\$ 267	\$ 70	\$ 337
Net cash used by investing activities	\$ (100)	\$ (8)	\$ (108)	\$ (196)	\$ (80)	\$ (276)	\$ (201)	\$ (70)	\$ (271)

(4) Acquisition

On April 1, 2016, CVR Partners acquired the East Dubuque Facility as part of the Agreement and Plan of Merger, dated as of August 9, 2015 (the “East Dubuque Merger”). The East Dubuque Merger was accounted for as an acquisition of a business with CVR Partners as the acquirer. The aggregate merger consideration was approximately \$802 million, including the fair value of CVR Partners common units issued of \$335 million, cash consideration of \$99 million and \$368 million fair value of assumed debt. From the date of acquisition, the East Dubuque Facility’s operations contributed net sales of \$128 million and an operating loss of \$1 million to the Consolidated Statement of Operations for the year ended December 31, 2016.

(5) Equity Method Investments

For each of the following investments, CVR Refining has the ability to exercise influence through its participation in the management committees, which make all significant decisions. However, since CVR Refining has equal or proportionate influence over each committee as a joint partner without regard to its economic interest and does not serve as the day-to-day operator, we have determined that these entities should not be consolidated and apply the equity method of accounting.

- Enable South Central Pipeline, LLC (“Enable JV”, formerly Velocity Pipeline Partners, LLC) - CVR Refining owns a 40% interest in Enable JV, which operates a 12-inch 26-mile crude oil pipeline with a capacity of approximately 80,000 barrels per day that is connected to the Wynnewood Refinery. The remaining interest in Enable JV is owned by Enable Midstream Partners, LP.
- Midway Pipeline, LLC (“Midway JV”) - CVR Refining owns a 50% interest in Midway JV, which operates a 16-inch 100 mile crude oil pipeline with a capacity of approximately 120,000 barrels per day which connects the Coffeyville Refinery to the Cushing Oklahoma oil hub.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

(in millions)	Enable JV	Midway JV	Total
Balance at December 31, 2016	6	—	6
Contributions	1	76	77
Cash Distributions	(1)	—	(1)
Equity income	—	1	1
Balance at December 31, 2017	6	77	83
Cash Distributions	(2)	(5)	(7)
Equity income	2	6	8
Balance at December 31, 2018	<u>\$ 6</u>	<u>\$ 78</u>	<u>\$ 84</u>

(6) Long-Term Debt

(in millions)	December 31, 2018	December 31, 2017
CVR Partners:		
9.25% Senior Secured Notes due June 2023 (a)	\$ 645	\$ 645
6.50% Senior Notes due April 2021	2	2
Unamortized discount and debt issuance costs	(18)	(22)
Total CVR Partners Debt	<u>\$ 629</u>	<u>\$ 625</u>
CVR Refining:		
6.50% Senior Notes due November 2022 (b)	\$ 500	\$ 500
Capital lease obligations	44	45
Unamortized debt issuance cost	(3)	(4)
Current portion of capital lease obligations	(3)	(2)
Total CVR Refining Debt	<u>\$ 538</u>	<u>\$ 539</u>
Total Long-Term Debt	<u>\$ 1,167</u>	<u>\$ 1,164</u>

(a) This debt was issued at a \$16 million discount which is being amortized, as interest expense, over the remaining term of the debt. Debt issuance costs associated with this debt totaled \$9 million.

(b) Debt issuance costs associated with this debt totaled \$9 million. On January 29, 2019, the 2022 Senior Notes were amended such that CVR Refining was replaced by CVR Energy Inc. as the primary guarantor, on a senior unsecured basis, of the 2022 Senior Notes. The CVR Energy Inc. guarantee is full and unconditional and joint and several. See Note 15 ("Guarantor Financial Information") for further discussion and implications of this change to guarantor.

Credit Facilities

(in millions)	Total Capacity	Amount Borrowed as of December 31, 2018	Outstanding Letters of Credit	Available Capacity as of December 31, 2018	Maturity Date
Amended and Restated Asset Based (ABL) Credit Facility (c)	\$ 400	\$ —	\$ 6	\$ 394	November 14, 2022
Asset Based (ABL) Credit Facility (d)	50	—	—	50	September 30, 2021

(c) Loans under the Amended and Restated ABL Credit Facility initially bear interest at an annual rate equal to (i) 1.50% plus LIBOR or (ii) 0.50% plus a base rate, subject to quarterly excess availability.

(d) Loans under the ABL Credit Facility initially bear interest at an annual rate equal to (i) 2.00% plus LIBOR or (ii) 1.00% plus a base rate, subject to a 0.50% step-down based on the previous quarter's excess availability.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Included in other current liabilities on the Consolidated Balance Sheets is accrued interest payable totaling approximately \$8 million for both December 31, 2018 and 2017, \$5 million relates to the 2022 Notes and \$3 million relates to the 2023 Notes.

The Company is in compliance with all covenants of the ABL credit facilities and the senior notes as of December 31, 2018.

Amended and Restated Asset Based (ABL) Credit Facility

On November 14, 2017, CRLLC, CVR Refining, its wholly-owned subsidiary, CVR Refining, LLC (“Refining LLC”) and each of the operating subsidiaries of Refining LLC (collectively, the “Credit Parties”) entered into Amendment No. 1 to the Amended and Restated ABL Credit Agreement (the “Amendment”) with a group of lenders and Wells Fargo Bank, National Association (“Wells Fargo”), as administrative agent and collateral agent. The Amended and Restated ABL Credit Facility is a \$400 million asset-based revolving credit facility, with sub-limits for letters of credit and swingline loans of \$60 million and \$40 million, respectively. The Amended and Restated ABL Credit Facility also includes a \$200 million uncommitted incremental facility.

Asset Based (ABL) Credit Facility

On September 30, 2016, CVR Partners entered into a senior secured asset based revolving credit facility (the “ABL Credit Facility”) with a group of lenders and UBS AG (“UBS”), as administrative agent and collateral agent. The ABL Credit Facility has an aggregate principal amount of availability of up to \$50 million with an incremental facility, which permits an increase in borrowings of up to \$25 million in the aggregate subject to additional lender commitments and certain other conditions. The ABL Credit Facility is scheduled to mature on September 30, 2021.

Credit Agreement

On January 29, 2019, the Company entered into a credit agreement (the “Credit Agreement”) with Jefferies Finance LLC to provide a term loan credit facility with a maturity date of March 10, 2019. The borrowings under the Credit Agreement of \$105 million were used to fund a portion of the CVRR Unit Purchase. All amounts were repaid on February 11, 2019.

Capital Lease Obligations

CVR Refining maintains three significant leases, accounted for as a capital lease, which include a pipeline lease, a storage and terminal equipment lease and a bundled truck lease. These leases range in expiry from 44 months to 130 months. As of December 31, 2018, the outstanding obligation associated with these arrangements totaled approximately \$44 million.

Future payments required under these capital lease at December 31, 2018 are as follows:

<u>Year Ending December 31,</u>	<u>Capital Lease</u>
(in millions)	
2019 - 2023 (annually \$7 million)	\$ 35
Thereafter	37
Total future payments	<u>72</u>
Less: amount representing interest	<u>28</u>
Present value of future minimum payments	44
Less: current portion	<u>3</u>
Long-term portion	<u>\$ 41</u>

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

(7) Revenue

On January 1, 2018, the Company adopted Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 606, “Revenue from Contracts with Customers” (“ASC 606”) using the modified retrospective method applied to contracts which were not completed as of January 1, 2018. The standard was applied prospectively and the comparative information for 2017 has not been restated and continues to be reported under the accounting standards in effect for the prior period. The Company did not identify any material differences in its existing revenue recognition methods that required modification under the new standard and, as such, a cumulative effect adjustment of applying the standard using the modified retrospective method was not recorded.

The following tables present the Company’s revenue disaggregated by major product. The following tables include a reconciliation of the disaggregated revenue by product and other revenue components for the Company’s reportable segments.

(in millions)	Year Ended December 31, 2018			
	Petroleum	Nitrogen Fertilizer	Other / Eliminations	Consolidated
Gasoline	\$ 3,383	\$ —	\$ —	\$ 3,383
Distillates (a)	3,067	—	—	3,067
Ammonia	—	66	—	66
UAN	—	222	—	222
Other urea products	—	21	—	21
Freight revenue	23	34	—	57
Other (b)	206	8	(7)	207
Revenue from product sales	6,679	351	(7)	7,023
Crude oil sales	96	—	—	96
Other revenue (b)	5	—	—	5
Total revenue	\$ 6,780	\$ 351	\$ (7)	\$ 7,124

(a) Distillates consist primarily of diesel fuel, kerosene and jet fuel.

(b) Other revenue consists primarily of feedstock and asphalt sales and Cushing, OK storage tank lease revenue. See Note 2 (“Summary of Significant Accounting Policies”) for further discussion.

Petroleum Segment

The Petroleum Segment’s revenue from product sales is recorded upon delivery of the products to customers, which is the point at which title is transferred and the customer has assumed the risk of loss. This generally takes place as product passes into the pipeline, as a product transfer order occurs within a pipeline system, or as product enters equipment or locations supplied or designated by the customer. The sales tax practical expedient is being applied, whereby qualifying excise and other taxes collected from customers and remitted to governmental authorities are not included in reported Petroleum Segment revenues.

Many of the Petroleum Segment’s contracts have index-based pricing which is considered variable consideration that should be estimated in determining the transaction price. The Petroleum Segment does not estimate the variable consideration because the uncertainty related to the consideration is resolved on the pricing date or the date when the product is delivered.

The Petroleum Segment may incur broker commissions or transportation costs prior to product transfer on some of its sales. The Petroleum Segment has elected to apply the practical expedient allowing it to expense the broker costs since the contract durations are less than a year in length. Transportation costs are accounted for as fulfillment costs and are expensed as incurred since they do not meet the requirement for capitalization.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The Petroleum Segment's contracts with its customers state the terms of the sale, including the description, quantity, and price of each product sold. Depending on the product sold, payment from customers is generally due in full within 2 to 30 days of product delivery or invoice date. The Petroleum Segment's contracts with customers commonly include a provision which states that the petroleum segment will accept customer returns of off-spec product, refund the customer (or provide on-spec product), and pay for damages to any customer equipment which resulted from the off-spec product. Typically, if the customer is not satisfied with the product, the price is adjusted downward instead of the product being returned or exchanged. Product returns or refunds are rare and will be accounted for as they occur. The Petroleum Segment generally provides no warranty other than the implicit promise that goods delivered are free of liens and encumbrances and meet the agreed upon specification.

Freight revenue recognized by the petroleum segment is primarily tariff and line loss charges that are re-billed to customers for expenses reflected in cost of materials and other for the transportation and distribution of products to the customer.

Nitrogen Fertilizer Segment

The Nitrogen Fertilizer Segment sells its products on a wholesale basis under a contract or by purchase order. Contracts with customers, including purchase orders, generally contain fixed pricing and have terms of less than one year. The Nitrogen Fertilizer Segment recognizes revenue at the point in time at which the customer obtains control of the product, which is generally upon delivery and acceptance by the customer. The customer acceptance point is stated in the contract and may be at one of the Nitrogen Fertilizer Segment's manufacturing facilities or off-site loading facilities or at the customer's designated facility. Freight revenue recognized by the Nitrogen Fertilizer Segment represents the pass-through finished goods delivery costs incurred prior to customer acceptance and is reimbursed by customers. An offsetting expense for freight is included in cost of materials and other. Qualifying taxes collected from customers and remitted to governmental authorities are not included in reported Nitrogen Fertilizer Segment revenues.

Depending on the product sold and the type of contract, payments from customers are generally either due prior to delivery or within 15 to 30 days of product delivery.

The Nitrogen Fertilizer Segment generally provides no warranty other than the implicit promise that goods delivered are free of liens and encumbrances and meet the agreed upon specifications. Product returns are rare, and as such, no specific warranty reserve is recorded and activities related to such warranty, if any, are not considered to be a separate performance obligation.

The Nitrogen Fertilizer Segment has an immaterial amount of variable consideration for contracts with an original duration of less than a year. An insignificant portion of the Nitrogen Fertilizer Segment's revenue includes contracts extending beyond one year, some of which contain variable pricing in which the majority of the variability is attributed to the market-based pricing. The Nitrogen Fertilizer Segment's contracts do not contain a significant financing component.

The Nitrogen Fertilizer Segment has an immaterial amount of fee-based revenue, included in other revenue in the table above, that is recognized based on the net amount of the proceeds received, consistent with prior accounting practice.

Remaining performance obligations

As of December 31, 2018, the Nitrogen Fertilizer Segment had approximately \$11 million of remaining performance obligations for contracts with an original expected duration of more than one year. Approximately 45% of these performance obligations are expected to be recognized as revenue by the end of 2019 with an additional 27% by 2020 and the remaining balance thereafter.

Contract balances

Deferred revenue is a contract liability associated with the Nitrogen Fertilizer Segment that primarily relates to fertilizer sales contracts requiring customer prepayment prior to product delivery to guarantee a price and supply of nitrogen fertilizer. Deferred revenue is recorded at the point in time in which a prepaid contract is legally enforceable and the associated right to consideration is unconditional prior to transferring product to the customer. An associated receivable is recorded for uncollected prepaid contract amounts. Contracts requiring prepayment are generally short-term in nature and, as discussed above, revenue is recognized at the point in time in which the customer obtains control of the product.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

A summary of the Nitrogen Fertilizer Segment's deferred revenue activity during the year ended December 31, 2018 is presented below:

(in millions)	<u>Year Ended December 31, 2018</u>
Balance at January 1, 2018	\$ 34
Add:	
New prepay contracts entered into during the period, net of adjustments	92
Less:	
Revenue recognized that was included in the contract liability balance at the beginning of the period	34
Revenue recognized related to contracts entered into during the period	23
Balance at December 31, 2018	<u>\$ 69</u>

Major Customers

Petroleum Segment - The Petroleum Segment has one customer who comprised 15%, 19%, and 15% of net sales for the years ended December 31, 2018, 2017, and 2016, respectively.

Nitrogen Fertilizer Segment - The Nitrogen Fertilizer Segment has two customers who comprised 20%, 16%, and 20% of net sales for the years ended December 31, 2018, 2017, and 2016, respectively. One of these customers comprised 14%, 11%, and 10% of net sales for the same periods, respectively.

(8) Derivative Financial Instruments

Our segments are subject to price fluctuations caused by supply conditions, weather, economic conditions, interest rate fluctuations and other factors. To manage price risk on crude oil and other inventories and to fix margins on certain future production, the Petroleum Segment from time to time enters into various commodity derivative transactions. The Petroleum Segment holds derivative instruments, such as exchange-traded crude oil futures and certain over-the-counter forward swap agreements, which it believes provide an economic hedge on future transactions, but such instruments are not designated as hedges under GAAP. There are no premiums paid or received at inception of the derivative contracts and upon settlement. The Petroleum Segment may enter into forward purchase or sale contracts associated with RINs. As of December 31, 2018, the Petroleum Segment had open commitments to purchase 27 million 2019 year RINs at \$4 million and 8 million 2018 year RINs for \$3 million.

Commodity derivatives include commodity swaps and forward purchase and sale commitments. There were no outstanding commodity swap positions as of December 31, 2018.

The following outlines the gains (losses) recognized on the Company's derivative activities, all of which are recorded in Cost of Materials and Other on the Consolidated Statements of Operations:

Gain (Loss) on Derivatives by Type

(in millions)	Year Ended December 31,		
	2018	2017	2016
Forward purchases	\$ 103	\$ (26)	\$ —
Swaps	44	(43)	(19)
Futures	(1)	(1)	—
Total gain (loss) on derivatives, net	<u>\$ 146</u>	<u>\$ (70)</u>	<u>\$ (19)</u>

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The following outlines the open positions (in millions of barrels) held by the Petroleum Segment as of December 31, 2018 and 2017:

Open Commodity Derivative Instruments

	Year Ended December 31,	
	2018	2017
Commodity Swap Instruments:		
2-1-1 Crack spreads	—	7
Distillate Crack spreads	—	4
Gasoline Crack spreads	—	4
Purchase and Sale Commitments - Futures Contracts:		
Canadian crude oil	2	6

Offsetting Assets and Liabilities

The Company elected to offset the fair value amounts recognized for multiple derivative contracts executed with the same counterparty. These amounts are recognized as current assets and current liabilities within the prepaid expenses and other current assets and accrued expenses and other current liabilities financial statement line items, respectively, in the Consolidated Balance Sheets as follows:

(in millions)	Derivative Assets		Derivative Liabilities	
	December 31,		December 31,	
	2018	2017	2018	2017
Commodity Derivatives	\$ 8	\$ 7	\$ 1	\$ 71
Less: Counterparty Netting	(1)	(7)	(1)	(7)
Total Net Fair Value of Derivatives	\$ 7	\$ —	\$ —	\$ 64

In accordance with FASB ASC Topic 820 — *Fair Value Measurements and Disclosures* (“ASC 820”), the Company utilizes the market approach to measure fair value for its financial assets and liabilities. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets, liabilities or a group of assets or liabilities, such as a business.

ASC 820 utilizes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The following is a brief description of those three levels:

- Level 1 — Quoted prices in active markets for identical assets or liabilities
- Level 2 — Other significant observable inputs (including quoted prices in active markets for similar assets or liabilities)
- Level 3 — Significant unobservable inputs (including the Company’s own assumptions in determining the fair value)

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The following table sets forth the assets and liabilities measured or disclosed at fair value on a recurring basis, by input level, as of December 31, 2018 and 2017:

		December 31, 2018			
(in millions)	<u>Location and Description</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
	Cash equivalents	\$ 50	\$ —	\$ —	\$ 50
	Other current assets (commodity derivatives)	—	7	—	7
	Total Assets	<u>\$ 50</u>	<u>\$ 7</u>	<u>\$ —</u>	<u>\$ 57</u>
	Other current liabilities (Renewable Fuel Standard “RFS” obligation)	—	(2)	—	(2)
	Long-term debt	—	(1,163)	—	(1,163)
	Total Liabilities	<u>\$ —</u>	<u>\$ (1,165)</u>	<u>\$ —</u>	<u>\$ (1,165)</u>

		December 31, 2017			
(in millions)	<u>Location and Description</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
	Cash equivalents	\$ 15	\$ —	\$ —	\$ 15
	Total Assets	<u>\$ 15</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 15</u>
	Other current liabilities (commodity derivatives)	\$ —	\$ (64)	\$ —	\$ (64)
	Other current liabilities (RFS obligation)	—	(1)	—	(1)
	Long-term debt	—	(1,209)	—	(1,209)
	Total Liabilities	<u>\$ —</u>	<u>\$ (1,274)</u>	<u>\$ —</u>	<u>\$ (1,274)</u>

As of December 31, 2018 and 2017, the only financial assets and liabilities that are measured at fair value on a recurring basis are the Company’s cash equivalents, derivative instruments, and the RFS obligation. The Petroleum Segment’s commodity derivative contracts and RFS obligation, which use fair value measurements and are valued using broker quoted market prices of similar instruments, are considered Level 2 inputs. The Company had no transfers of assets or liabilities between any of the above levels during the year ended December 31, 2018.

(9) Share-Based Compensation

Overview

CVR Energy, CVR Refining and CVR Partners all have a Long-Term Incentive Plans (collectively, the “LTIPs”) which permit the granting of options, stock and unit appreciation rights (“SARs”), restricted shares, restricted stock units, phantom units, unit awards, substitute awards, other unit-based awards, cash awards, dividend and distribution equivalent rights, share awards and performance awards (including performance share units, performance units and performance-based restricted stock). Individuals who are eligible to receive awards and grants under the LTIP include the Company’s and employees, officers, consultants, advisors and directors of CVR Refining and CVR Partners.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Incentive and Phantom Unit Awards

Incentive and phantom unit awards have been granted to officers, employees, consultants and directors (collectively, the “Share-Based Awards”) under the LTIPs. As a result, Share-Based Awards that reflect the value and dividend or distributions of CVR Energy, CVR Refining or CVR Partners have been granted and remain outstanding as of December 31, 2018. Each Share-Based Award and the related dividend or distribution equivalent right represents the right to receive, upon vesting, a cash payment equal to (i) the average fair market value of one share or unit, as applicable, in accordance with the award agreement, plus (ii) the per share or unit cash value of all dividends or distributions declared and paid, as applicable, from the grant date to and including the vesting date. The Share-Based Awards are generally graded-vesting awards, which are expected to vest over three years with one-third of the award vesting each year the grantee remains employed by the Company or its subsidiaries. Compensation expense is recognized on a ratably based on service provided to the Company and its subsidiaries with the amount recognized fluctuating as a result of the Share-Based Awards being re-measured to fair value at the end of each reporting period due to their liability-award classification.

Phantom and Incentive Unit Awards - A summary of activity for the Company’s Share-Based Awards for the years ended December 31, 2018, 2017 and 2016 is presented below:

	Shares or Units	Weighted-Average Grant-Date Fair Value (Per Share or Unit)	Aggregate Intrinsic Value (in Millions)
Non-vested at December 31, 2016	2,664,438	\$ 10.76	\$ 24
Granted	1,713,192	8.52	
Vested	(1,062,382)	11.62	
Forfeited	(361,301)	12.29	
Non-vested at December 31, 2017	2,953,947	\$ 8.97	\$ 33
Granted	1,236,322	16.11	
Vested	(1,140,423)	9.74	
Forfeited	(617,773)	9.39	
Non-vested December 31, 2018	2,432,073	\$ 12.13	\$ 24

Performance Unit Awards

Pursuant to an employment agreement with the Company’s current chief executive officer, the Company entered into two performance award agreements on November 1, 2017. In connection with the performance period of January 1, 2018 to December 31, 2018, a performance award was granted with a target value of \$1.5 million that is payable in February 2019 (the “2018 CEO Performance Award”). The payout under the 2018 CEO Performance Award is based on the Company’s performance against certain safety, operating and financial measures. Additionally, the Company entered into a performance award agreement (the “CEO Performance Award”). The CEO Performance Award represents the right to receive upon vesting, a cash payment equal to \$10 million if the average closing price of the Company’s common stock over the 30-trading day period from January 4, 2022 to February 15, 2022 is equal to or greater than \$60 per share. An accrual of approximately \$2 million has been recognized at December 31, 2018 associated with the 2018 CEO Performance Award.

In December 2016, the Company entered into a performance unit award agreement with the Company’s former chief executive officer related to the performance period from January 1, 2017 to December 31, 2017 (the “Former CEO Performance Award”). As of and for the year ended December 31, 2018, there was no outstanding liability or expense recognized related to the Former CEO Performance Award.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Compensation Expense

A summary of total share based compensation expense and unrecognized compensation expense related to the Share-Based Awards and Company's performance awards, the amounts allocated to each of the Company's segments, and the amounts that were not allocated to segments during the years ended December 31, 2018, 2017 and 2016 is presented below:

(in millions)	Expenses			Unrecognized Expense	
	For the year ended December 31,			At December 31, 2018	
	2018	2017	2016	Amount	Weighted Average Remaining Years
Share based awards					
Incentive Units	\$ 4	\$ 7	\$ 2	\$ 15	1.7
Phantom Units	8	8	3	4	1.6
Performance awards					
CEO Performance Award	2	—	—	8	3.0
2018 CEO Performance Award	2	—	—	—	0.0
Former CEO Performance Award	—	4	4	—	0.0
Total expense	\$ 16	\$ 19	\$ 9	\$ 27	

Other Benefit Plans

CVR sponsors and administers two defined-contribution 401(k) plans, the CVR Energy 401(k) Plan and the CVR Energy 401(k) Plan for Represented Employees (the "Plans"), in which CVR employees may participate. CVR's contributions under the Plans were approximately \$9 million, \$9 million and \$8 million for the years ended December 31, 2018, 2017 and 2016, respectively.

(10) Income Taxes

Tax Allocation Agreement

Prior to the CVRR Unit Exchange, CVR Energy was a member of the consolidated federal tax group of AEP, an affiliate of IEP, and party to a tax allocation agreement with AEP (the "Tax Allocation Agreement"). The Tax Allocation Agreement provides that AEP will pay all consolidated federal income taxes on behalf of the consolidated tax group. As a result, CVR Energy is required to make payments to AEP in an amount equal to the tax liability, if any, that it would have paid if it were to file as a consolidated group separate and apart from AEP.

Following the CVRR Unit Exchange, IEP and affiliates' ownership of CVR Energy was reduced below 80% and CVR Energy is no longer eligible to file as a member of the AEP consolidated federal income tax group. Beginning with the tax period after the exchange, CVR Energy became the parent of a new consolidated group for U.S. federal income tax purposes and will file and pay its federal income tax obligations directly to the IRS. Pursuant to the terms of the Tax Allocation Agreement, however, CVR Energy may be required to make payments in respect of taxes owed by AEP for periods prior to the exchange. Similar principles may apply for state or local income tax purposes where CVR Energy filed combined, consolidated for unitary tax returns with AEP.

As of December 31, 2018 and 2017, the Company's Consolidated Balance Sheets reflected a receivable of \$4 million and \$5 million, respectively, for federal income taxes due from AEP. These amounts are recorded as Other Current Assets in the Consolidated Balance Sheets. As of December 31, 2018, the Company's Consolidated Balance Sheets also reflected a receivable of \$12 million from the IRS and certain state jurisdictions.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Income Tax Expense (Benefit)

Income tax expense (benefit) is comprised of the following:

(in millions)	Year Ended December 31,		
	2018	2017	2016
Current:			
Federal	\$ 31	\$ (1)	\$ 67
State	(7)	(22)	(7)
Total current	24	(23)	60
Deferred:			
Federal	39	(186)	(60)
State	16	(11)	(19)
Total deferred	55	(197)	(79)
Total income tax expense (benefit)	\$ 79	\$ (220)	\$ (19)

The following is a reconciliation of total income tax expense (benefit) to income tax expense (benefit) computed by applying the statutory federal income tax rate to pretax income (loss):

(in millions)	Year Ended December 31,		
	2018	2017	2016
Tax computed at federal statutory rate	\$ 94	\$ 14	\$ (3)
State income taxes, net of federal tax benefit	12	(14)	(8)
State tax incentives, net of federal tax expense	(4)	(7)	(9)
Noncontrolling interest	(23)	1	6
Other, net	—	—	(5)
Adjustment to deferred tax assets and liabilities for enacted change in federal tax rate (a)	—	(214)	—
Total income tax expense (benefit)	\$ 79	\$ (220)	\$ (19)

(a) The income tax benefit for the year ended December 31, 2017 was favorably impacted as a result of the Tax Cuts and Jobs Act legislation that was signed into law in December 2017, reducing the federal income tax rate from 35% to 21% beginning in 2018. As a result, the Company's net deferred tax liabilities at December 31, 2017 were remeasured to reflect the lower tax rate that will be in effect for the years in which the deferred tax assets and liabilities will be realized.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Deferred Tax Assets and Liabilities

The income tax effect of temporary differences that give rise to significant portions of the deferred income tax assets and deferred income tax liabilities at December 31, 2018 and 2017 are as follows:

(in millions)	December 31,	
	2018	2017
Deferred income tax assets:		
State tax credit carryforward, net	\$ 11	\$ 11
Net operating loss carryforward	—	7
Total gross deferred income tax assets	11	18
Deferred income tax liabilities:		
Investment in CVR Partners	(59)	(55)
Investment in CVR Refining	(327)	(372)
Other	(5)	(4)
Total gross deferred income tax liabilities	(391)	(431)
Net deferred income tax liabilities	\$ (380)	\$ (413)

In assessing the realizability of deferred tax assets including net operating loss and credit carryforwards, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment. Although realization is not assured, management believes that it is more likely than not that all of the deferred tax assets will be realized and thus, no valuation allowance was provided as of December 31, 2018 and 2017.

As of December 31, 2018, CVR Energy has state credits of approximately \$35 million, which are available to reduce future state income taxes. These credits, if not used, will begin expiring in 2033.

Uncertain Tax Positions

A reconciliation of unrecognized tax benefits is as follows:

(in millions)	Year Ended December 31,		
	2018	2017	2016
Balance beginning of year	\$ 29	\$ 44	\$ 49
Reductions related to expirations of statute of limitations	(6)	(15)	(5)
Balance end of year	\$ 23	\$ 29	\$ 44

Included in the balance of unrecognized tax benefits as of December 31, 2018, 2017 and 2016 are \$18 million, \$23 million and \$29 million, respectively, of tax benefits that, if recognized, would affect the effective tax rate. Approximately \$6 million, \$15 million and \$5 million of the unrecognized tax positions relating to state tax credits were recognized in 2018, 2017 and 2016, respectively, as a result of a lapse of statute of limitations. Additionally, the Company believes that it is reasonably possible that approximately \$3 million of its unrecognized tax positions relating to state tax credits may be recognized by the end of 2019 as a result of a lapse of the statute of limitations. Approximately \$22 million and \$26 million of unrecognized tax benefits were netted with deferred tax asset carryforwards as of December 31, 2018 and 2017, respectively. The remaining unrecognized tax benefits are included in Other Long-term Liabilities in the Consolidated Balance Sheets.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

CVR Energy recognizes interest expense (income) and penalties on uncertain tax positions and income tax deficiencies (refunds) in income tax expense. CVR Energy recognized interest benefit of approximately \$1 million during 2018 and has recognized a nominal liability for interest as of December 31, 2018. In 2017, CVR Energy recognized interest expense of approximately \$7 million and had recognized a liability for interest of approximately \$1 million as of December 31, 2017. In 2016, CVR Energy recognized interest expense of approximately \$1 million and had recognized a liability for interest of approximately \$8 million as of December 31, 2016. No penalties were recognized during 2018 or 2017.

At December 31, 2018, the Company's tax filings are generally open to examination in the United States for the tax years ended December 31, 2015 through December 31, 2017 and in various individual states for the tax years ended December 31, 2013 through December 31, 2017.

(11) Commitments and Contingencies

Leases

The minimum required payments for CVR's operating lease agreements and unconditional purchase obligations are as follows:

<u>Year Ending December 31,</u>	<u>Operating Leases</u>	<u>Unconditional Purchase Obligations</u>
(in millions)		
2019	\$ 24	\$ 129
2020	20	89
2021	18	78
2022	16	76
2023	12	75
Thereafter	26	444
	<u>\$ 116</u>	<u>\$ 891</u>

Leases - The Company leases equipment, including railcars and real properties, under long-term operating leases. For the years ended December 31, 2018, 2017 and 2016, rent expense totaled approximately \$10 million, \$8 million and \$8 million, respectively.

Supply Commitments - The Company is a party to various supply agreements with both related and third parties which commit the Company to purchase minimum volumes of crude oil, hydrogen, oxygen, nitrogen, petroleum coke ("pet coke"), and natural gas to run its facilities' operations. For the years ended December 31, 2018, 2017 and 2016, amounts purchased under these supply agreements totaled approximately \$214 million, \$209 million, and \$151 million, respectively.

Crude Oil Supply Agreement

On August 31, 2012, an indirect, wholly-owned subsidiary of CVR Refining and Vitol Inc. ("Vitol") entered into an Amended and Restated Crude Oil Supply Agreement (as amended, the "Crude Oil Supply Agreement"). Under the Crude Oil Supply Agreement, Vitol supplies the Petroleum Segment with crude oil and intermediation logistics helping to reduce the amount of inventory held at a certain point and mitigate crude oil pricing risk. Volumes contracted under the Crude Oil Supply Agreement, as a percentage of the total crude oil purchases (in barrels), was approximately 42%, 55% and 61% for the years ended December 31, 2018, 2017 and 2016, respectively. The Crude Oil Supply Agreement automatically renews for successive one-year terms (each such term, a "Renewal Term") unless either party provides the other with notice of nonrenewal at least 180 days prior to expiration of any Renewal Term.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Contingencies

CVRR Unit Purchase - As of February 20, 2019, the Company, CVR Refining and its general partner, CVR Refining Holdings, IEP and certain directors and affiliates have each been named in at least one of six lawsuits filed in the Court of Chancery of the State of Delaware by purported former unitholders of CVR Refining, on behalf of themselves and an alleged class of similarly situated unitholders (the "Call Option Lawsuits"). The Call Option Lawsuits primarily allege breach of contract, tortious interference and breach of the implied covenant of good faith and fair dealing and seek monetary damages and attorneys' fees, among other remedies, relating to the Company's exercise of the call option under the CVR Refining Amended and Restated Agreement of Limited Partnership assigned to it by CVR Refining's general partner. The Call Option Lawsuits are in the earliest stages of litigation. The Company believes the Call Option Lawsuits are without merit and intends to vigorously defend against them.

Business Interruption Recovery - In 2018, CVR Partners submitted a business interruption claim for losses under its insurance policies, related to damage and resulting reduced equipment production rates experienced during the second half of 2017 and early 2018. In December 2018, in connection with a signed Claim Settlement and Release Agreement with the underwriters of the insurance policy, CVR Partners recognized a recovery of approximately \$6 million. Approximately \$5 million was received prior to year end and recorded as Other Income within the Consolidated Statement of Operations. The remaining amount of approximately \$1 million was recorded as Accounts Receivable as of December 31, 2018 and was subsequently collected in January 2019.

Property Tax Matter - In 2008, CRNF protested the reclassification and reassessment by Montgomery County, Kansas (the "County") of CRNF's nitrogen fertilizer plant following expiration of its ten-year property tax abatement that expired on December 31, 2007, which reclassification and reassessment resulted in an increase in CRNF's annual property tax expense in excess of \$10 million per year for the 2008 through 2012 tax years. Despite its protest, CRNF fully accrued and paid these property taxes. In February 2013, the County and CRNF agreed to a settlement for tax years 2009 through 2012 which resulted in decreased property taxes through 2017, leaving 2008 in dispute. In 2013, the Kansas Court of Appeals overturned an adverse ruling of the Kansas Board of Tax Appeals ("BOTA") and instructed BOTA to classify each CRNF asset on an asset-by-asset basis. In March 2015, BOTA concluded its classification and determined a substantial majority of CRNF's assets in dispute were personal property for the 2008 tax year. In September 2018, the Kansas Court of Appeals upheld BOTA's property tax determinations in CRNF's favor. In October 2018, the County petitioned the Kansas Supreme Court to review the Court of Appeals determination. Subsequent briefs were filed by CRNF and the County. The Kansas Supreme Court has not yet ruled on whether it will hear the County's appeal.

Environmental, Health, and Safety ("EHS") Matters

Clean Air Act Matter - On August 21, 2018, CRRM received a letter from the United States Department of Justice ("DOJ") on behalf of the EPA and Kansas Department of Health and Environment ("KDHE") alleging violations of the Clean Air Act ("CAA") and a 2012 Consent Decree between CRRM, the United States (on behalf of EPA) and KDHE at CRRM's Coffeyville refinery. In September 2018, CRRM executed a tolling agreement with the DOJ and KDHE extending time for negotiation regarding the agencies' allegations through March 31, 2019. At this time the Company cannot reasonably estimate the potential penalties, costs, fines or other expenditures that may result from this matter or any subsequent enforcement or litigation relating thereto and, therefore, the Company cannot determine if the ultimate outcome of this matter will have a material impact on the Company's financial position, results of operations or cash flows.

Renewable Fuel Standards - The Company's Petroleum Segment is subject to the renewable fuel standards ("RFS") of the Environmental Protection Agency ("EPA") that require refiners to either blend "renewable fuels" in with their transportation fuels or purchase renewable fuel credits, known as renewable identification numbers ("RINs"), in lieu of blending. CVR Refining is not able to blend the substantial majority of its transportation fuels and has to purchase RINs on the open market, as well as obtain waiver credits for cellulosic biofuels from the EPA in order to comply with the RFS.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The Company recognized expense of approximately \$60 million, \$249 million and \$206 million for the years ended December 31, 2018, 2017 and 2016, respectively, for the Petroleum Segment's compliance with RFS. The expense recognized was included within Cost of Materials and Other in the Consolidated Statements of Operations. The Company's costs to comply with RFS include the purchased cost of RINs, the impact of recognizing CVR Refining's uncommitted biofuel blending obligation at fair value based on market prices at each reporting date and the valuation change of RINs purchases in excess of CVR Refining's RFS obligation as of the reporting date. During the year ended December 31, 2018, the Company's cost to comply with RFS was favorably impacted by a reduction in CVR Refining's RFS obligation and reduced market pricing. As of December 31, 2018 and 2017, CVR Refining's biofuel blending obligation was approximately \$4 million and \$28 million, respectively, which is recorded in Other Current Liabilities in the Consolidated Balance Sheets.

Environmental Remediation - As of December 31, 2018 and 2017, environmental accruals representing estimated costs for future remediation efforts at certain Petroleum Segment sites totaled approximately \$8 million and \$4 million, respectively. These amounts are reflected in Other Current Liabilities or Other Long-Term Liabilities depending when the Company expects to expend such amounts.

Wynnewood Refinery Incident - On September 28, 2012, the Petroleum Segment's Wynnewood refinery, owned and operated by Wynnewood Refining Company, LLC ("WRC"), an indirect wholly-owned subsidiary of CVR Refining, experienced an explosion in a boiler unit during startup after a short outage as part of the turnaround process. Two employees were fatally injured. Damage at the refinery was limited to the boiler. Additionally, there was no environmental impact. The refinery was in the final stages of shutdown for turnaround maintenance at the time of the incident. The Company completed an internal investigation of the incident and cooperated with the Occupational Safety and Health Administration ("OSHA") in its investigation. OSHA also conducted a general inspection of the facility during the boiler incident investigation. In March 2013, OSHA completed its investigation, communicated its citations, and placed WRC in its Severe Violators Enforcement Program ("SVEP"). The Company is vigorously contesting the citations and OSHA's placement of WRC in the SVEP. Any penalties associated with OSHA's citations are not expected to have a material adverse effect on the consolidated financial statements.

(12) Business Segments

The Company has two operating segments: Petroleum and Nitrogen Fertilizer. These operating segments are also the Company's reportable segments. As discussed in Note 1 ("Organization and Nature of Business"), the Petroleum Segment is comprised entirely of the consolidated operations of CVR Refining and its subsidiaries. The Nitrogen Fertilizer Segment is comprised entirely of the consolidated operations of CVR Partners and its subsidiaries. Other corporate activities, and related costs, are not included in these segments but costs related to such activities are allocated to each segment based on amounts attributable to each. All intercompany transactions are eliminated and are reflected as other below. All operations of the segments are located within the United States.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The following tables summarize operating results, capital expenditures, and total asset information by segment:

(in millions)	Year Ended December 31,		
	2018	2017	2016
Net sales			
Petroleum	\$ 6,780	\$ 5,664	\$ 4,431
Nitrogen Fertilizer	351	331	356
Other	(7)	(7)	(5)
Total net sales	\$ 7,124	\$ 5,988	\$ 4,782
Operating income (loss)			
Petroleum	\$ 544	\$ 172	\$ 60
Nitrogen Fertilizer	6	(10)	26
Other	(18)	(17)	(14)
Total operating income (loss)	\$ 532	\$ 145	\$ 72
Interest expense, net	(102)	(109)	(83)
Other income, net	15	2	2
Earnings before income taxes	\$ 445	\$ 38	\$ (9)
Depreciation and amortization			
Petroleum	\$ 196	\$ 177	\$ 165
Nitrogen Fertilizer	72	74	58
Other	6	7	6
Total depreciation and amortization	\$ 274	\$ 258	\$ 229
Capital expenditures			
Petroleum	\$ 79	\$ 101	\$ 102
Nitrogen fertilizer	19	14	23
Other	4	5	8
Total	\$ 102	\$ 120	\$ 133

(in millions)	Year Ended December 31,		
	2018	2017	2016
Total assets			
Petroleum	\$ 2,453	\$ 2,416	\$ 2,441
Nitrogen Fertilizer	1,254	1,234	1,312
Other	293	303	406
Total	\$ 4,000	\$ 3,953	\$ 4,159

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

(13) Supplemental Cash Flow Information

Supplemental cash flow information related to income taxes, interest, and capital expenditures is as follows:

(in millions)	Year Ended December 31,	
	2018	2017
Supplemental disclosures:		
Cash paid for income taxes, net of refunds	\$ 31	\$ 15
Cash paid for interest	103	106
Non-cash investing and financing activities:		
Construction in progress additions included in accounts payable	\$ 17	\$ 8
Turnaround additions included in accounts payable	1	3
Change in accounts payable related to construction in progress additions	9	(5)
Change in accounts payable related to turnaround additions	(2)	3
Landlord incentives for leasehold improvements	—	1

(14) Related Party Transactions

Activity associated with the Company's related party arrangements for the years ended December 31, 2018, 2017, and 2016 is summarized below:

Expenses with related parties

(in millions)	Year ended December 31,		
	2018	2017	2016
<u>Cost of materials and other</u>			
Joint Venture Transportation Agreement:			
Enable JV	\$ 8	\$ 2	\$ —

Payments made

Dividends (1)	179	\$ 142	142
Tax Allocation Agreement with AEP	12	15	45

Amounts due to/from related parties

(in millions)	December 31, 2018		December 31, 2017	
	\$	4	\$	5
<u>Accounts Receivable (Payable)</u>				
Tax Allocation Agreement with AEP	\$	4	\$	5

(1) See below for a summary of the dividends paid to IEP for the periods ended December 31, 2018, 2017, and 2016.

Joint Venture Agreement

CVR Refining is party to a transportation agreement as part of the Enable JV for an initial term of 20 years under which Enable provides transportation services for crude oil purchased within a defined geographic area. Additionally, CR Refining entered into a terminalling services agreement with Enable JV under which it receives access to Enable JV's terminal in Lowrance, Oklahoma to unload and pump crude oil into Enable JV's pipeline for an initial term of 20 years.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Dividends

IEP and its affiliates, through its ownership of the Company's common shares, is entitled to receive its share of dividends that are declared and paid by the Company based on the number of shares held at each record date. The following is a summary of the quarterly and special dividends paid to stockholders, including IEP and its affiliates during the years ended December 31, 2018 and 2017:

(in millions)	December 31, 2017	March 31, 2018	June 30, 2018	September 30, 2018	Total Dividends Paid in 2018
Amount paid to IEP	\$ 36	\$ 36	\$ 53	\$ 54	\$ 179
Amounts paid to public stockholders	7	8	22	22	59
Total amount paid	<u>\$ 43</u>	<u>\$ 44</u>	<u>\$ 75</u>	<u>\$ 76</u>	<u>\$ 238</u>
Per common share	\$ 0.50	\$ 0.50	\$ 0.75	\$ 0.75	\$ 2.50
(in millions)	December 31, 2016	March 31, 2017	June 30, 2017	September 30, 2017	Total Dividends Paid in 2017
Amount paid to IEP	\$ 35	\$ 36	\$ 35	\$ 36	\$ 142
Amounts paid to public stockholders	8	8	8	8	32
Total amount paid	<u>\$ 43</u>	<u>\$ 44</u>	<u>\$ 43</u>	<u>\$ 44</u>	<u>\$ 174</u>
Per common share	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50	\$ 2.00
(in millions)	December 31, 2015	March 31, 2016	June 30, 2016	September 30, 2016	Total Dividends Paid in 2016
Amount paid to IEP	\$ 35	\$ 36	\$ 35	\$ 36	\$ 142
Amounts paid to public stockholders	8	8	8	8	32
Total amount paid	<u>\$ 43</u>	<u>\$ 44</u>	<u>\$ 43</u>	<u>\$ 44</u>	<u>\$ 174</u>
Per common share	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50	\$ 2.00

On February 20, 2019, the Company's board of directors declared a cash dividend for the fourth quarter of 2018 to the Company's stockholders of \$0.75 per share, or \$75 million in the aggregate. The dividend will be paid on March 11, 2019 to stockholders of record at the close of business on March 4, 2019. IEP will receive \$53 million in respect of its ownership interest in the Company's shares.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Affiliate Pension Obligations

Prior to the exchange offer discussed in Note 1, Mr. Carl C. Icahn, through certain affiliates, owned approximately 82% of the Company's capital stock. Applicable pension and tax laws make each member of a "controlled group" of entities, generally defined as entities in which there is at least an 80% common ownership interest, jointly and severally liable for certain pension plan obligations of any member of the controlled group. These pension obligations include ongoing contributions to fund the plan, as well as liability for any unfunded liabilities that may exist at the time the plan is terminated. As a result of the historical ownership interest in CVR Energy by Mr. Icahn's affiliates (prior to the exchange offer), the Company was subject to the pension liabilities of all entities in which Mr. Icahn had a direct or indirect ownership interest of at least 80%. Two such entities, ACF Industries LLC ("ACF") and Federal-Mogul, are the sponsors of several pension plans. As members of the controlled group, CVR Energy would be liable for any failure of ACF and Federal-Mogul to make ongoing pension contributions or to pay the unfunded liabilities upon a termination of their respective pension plans. The unfunded plan balances for these sponsors was \$435 million and \$424 million as of June 30, 2018 and December 31, 2017, respectively. These results are based on the information provided by Mr. Icahn's affiliates based on information from the plans' actuaries. As of December 31, 2018, and following the exchange offer, Mr. Icahn's affiliates own approximately 71% of the Company's capital stock and, therefore the Company is no longer considered to be liable for the aforementioned pension obligations of the controlled group. On October 1, 2018, Federal-Mogul was sold by Mr. Icahn's affiliates to a third party.

(15) Guarantor Financial Information

On January 29, 2019, in connection with CVRR Unit Purchase, CVR Energy, Inc. became a guarantor of CVR Refining's 2022 Senior Notes pursuant to a supplemental indenture (the "CVR Energy Guarantee"). The CVR Energy Guarantee is full and unconditional and joint and several. Following the cessation of trading for CVRR's common units and the execution of the CVR Energy Guarantee, the Company is providing condensed consolidating financial statements in lieu of standalone CVRR financial statements pursuant to Rule 3-10 of Regulation S-X.

The guarantor financial information provided below reflects condensed consolidating financial information of the Company. The following outlines the composition of each column in the condensed consolidating financial statements:

- Parent - represents CVR Energy, Inc. which, as of January 29, 2019, guarantees the 2022 Senior Notes;
- Subsidiary Issuer - represents Refining LLC and Coffeyville Finance, Inc. ("Coffeyville Finance"), which are the issuers of the 2022 Senior Notes. Coffeyville Finance has no assets or operations, thus the columns presents the financial position, results and cash flows of Refining LLC;
- Guarantor Subsidiaries - represents the operating subsidiaries of Refining LLC, which also represent the operating subsidiaries of CVR Refining, and CRLLC, an indirect wholly-owned subsidiary of CVR Energy. CRLLC's activities consist of general and administrative functions for the Company's operating businesses; and
- Non-Guarantor Subsidiaries - represents CVR Partners and other subsidiaries of CVR Energy that do not guarantee the 2022 Senior Notes.

For the purposes of this financial information, investments in consolidated subsidiaries are accounted for under the equity method of accounting. Intercompany transactions between entities within each column have been eliminated within the column. Eliminations for transactions with entities reflected in other columns are reflected in the "Intercompany Elimination" column.

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Condensed Consolidating Balance Sheet

December 31, 2018

(in millions)	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Intercompany Elimination	Consolidated
ASSETS						
Current assets:						
Cash and cash equivalents	\$ 3	\$ 340	\$ 252	\$ 73	\$ —	\$ 668
Accounts receivable	—	—	107	62	—	169
Intercompany receivable	6	—	4	—	(10)	—
Inventories	—	—	316	64	—	380
Prepaid expenses and other current assets	31	1	47	5	(8)	76
Total current assets	40	341	726	204	(18)	1,293
Property, plant and equipment, net of accumulated depreciation	—	—	1,410	1,020	—	2,430
Investment in and advances from subsidiaries	1,263	1,694	173	1,533	(4,663)	—
Other long-term assets	—	1	231	45	—	277
Total assets	<u>\$ 1,303</u>	<u>\$ 2,036</u>	<u>\$ 2,540</u>	<u>\$ 2,802</u>	<u>\$ (4,681)</u>	<u>\$ 4,000</u>
LIABILITIES AND PARTNERS' CAPITAL						
Current liabilities:						
Note payable and capital lease obligations	\$ —	\$ —	\$ 3	\$ —	\$ —	\$ 3
Accounts payable	1	—	291	29	(1)	320
Intercompany payables	—	—	—	10	(10)	—
Other current liabilities	6	7	62	105	(7)	173
Total current liabilities	7	7	356	144	(18)	496
Long-term liabilities:						
Long-term debt and capital lease obligations, net of current portion	—	496	42	629	—	1,167
Investment and advances from subsidiaries	—	—	106	—	(106)	—
Deferred income taxes	7	—	—	373	—	380
Other long-term liabilities	3	—	7	4	—	14
Total long-term liabilities	10	496	155	1,006	(106)	1,561
Commitments and contingencies						
Equity:						
Total CVR stockholders' equity	1,286	1,533	2,029	995	(4,557)	1,286
Noncontrolling interest	—	—	—	657	—	657
Total equity	1,286	1,533	2,029	1,652	(4,557)	1,943
Total liabilities and equity	<u>\$ 1,303</u>	<u>\$ 2,036</u>	<u>\$ 2,540</u>	<u>\$ 2,802</u>	<u>\$ (4,681)</u>	<u>\$ 4,000</u>

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Condensed Consolidating Balance Sheet

December 31, 2017

(in millions)	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Combined Non-Guarantor Subsidiaries	Intercompany Elimination	Consolidated
ASSETS						
Current assets:						
Cash and cash equivalents	\$ 4	\$ 163	\$ 261	\$ 54	\$ —	\$ 482
Accounts receivable	—	—	169	10	—	179
Intercompany receivables	9	—	8	—	(17)	—
Inventories	—	—	316	53	—	369
Prepaid expenses and other current assets	13	1	23	18	(7)	48
Total current assets	26	164	777	135	(24)	1,078
Property, plant and equipment, net of accumulated depreciation	—	—	1,498	1,075	—	2,573
Investment in and advances from subsidiaries	998	1,743	189	1,404	(4,334)	—
Other long-term assets	1	1	252	48	—	302
Total assets	<u>\$ 1,025</u>	<u>\$ 1,908</u>	<u>\$ 2,716</u>	<u>\$ 2,662</u>	<u>\$ (4,358)</u>	<u>\$ 3,953</u>
LIABILITIES AND PARTNERS' CAPITAL						
Current liabilities:						
Note payable and capital lease obligations	\$ —	\$ —	\$ 2	\$ —	\$ —	\$ 2
Accounts payable	1	—	310	24	(1)	334
Intercompany payables	—	—	—	17	(17)	—
Other current liabilities	12	5	151	46	(6)	208
Total current liabilities	13	5	463	87	(24)	544
Long-term liabilities:						
Long-term debt and capital lease obligations, net of current portion	—	496	42	626	—	1,164
Investment and advances from subsidiaries	—	—	230	—	(230)	—
Deferred income taxes	24	—	—	389	—	413
Other long-term liabilities	—	—	4	5	—	9
Total long-term liabilities	24	496	276	1,020	(230)	1,586
Commitments and contingencies						
Equity:						
Total CVR stockholders' equity	988	1,407	1,977	720	(4,104)	988
Noncontrolling interest	—	—	—	835	—	835
Total equity	988	1,407	1,977	1,555	(4,104)	1,823
Total liabilities and equity	<u>\$ 1,025</u>	<u>\$ 1,908</u>	<u>\$ 2,716</u>	<u>\$ 2,662</u>	<u>\$ (4,358)</u>	<u>\$ 3,953</u>

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Condensed Consolidating Statement of Operations

	Year Ended December 31, 2018					
	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Intercompany Eliminations	Consolidated
(in millions)						
Net sales	\$ —	\$ —	\$ 6,779	\$ 351	\$ (6)	\$ 7,124
Operating costs and expenses:						
Cost of materials and other	—	—	5,601	88	(6)	5,683
Direct operating expenses	—	—	358	159	—	517
Depreciation and amortization	—	—	191	72	—	263
Cost of sales	—	—	6,150	319	(6)	6,463
Selling, general and administrative expenses	17	1	60	34	—	112
Depreciation and amortization	—	—	8	3	—	11
Loss on asset disposals	—	—	5	1	—	6
Operating income (loss)	(17)	(1)	556	(6)	—	532
Other income (expense):						
Interest expense, net	—	(32)	(7)	(63)	—	(102)
Other income, net	—	—	9	6	—	15
Income (loss) from subsidiaries	273	558	(46)	524	(1,309)	—
Income (loss) before income taxes	256	525	512	461	(1,309)	445
Income tax expense (benefit)	(3)	—	—	82	—	79
Net income (loss)	259	525	512	379	(1,309)	366
Less: Net income attributable to noncontrolling interest	—	—	—	107	—	107
Net income (loss) attributable to CVR Energy stockholders	\$ 259	\$ 525	\$ 512	\$ 272	\$ (1,309)	\$ 259

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Condensed Consolidating Statement of Operations

	Year Ended December 31, 2017					
	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Intercompany Elimination	Consolidated
(in millions)						
Net sales	\$ —	\$ —	\$ 5,665	\$ 331	\$ (8)	\$ 5,988
Operating costs and expenses:						
Cost of materials and other	—	—	4,876	85	(8)	4,953
Direct operating expenses	—	—	359	157	—	516
Depreciation and amortization	—	—	173	74	—	247
Cost of sales	—	—	5,408	316	(8)	5,716
Selling, general and administrative expenses	15	1	14	83	—	113
Depreciation and amortization	—	—	8	3	—	11
Loss on asset disposals	—	—	3	—	—	3
Operating income (loss)	(15)	(1)	232	(71)	—	145
Other income (expense):						
Interest expense, net	—	(34)	(11)	(64)	—	(109)
Other income, net	—	—	1	1	—	2
Income (loss) from subsidiaries	272	222	(88)	186	(592)	—
Income (loss) before income taxes	257	187	134	52	(592)	38
Income tax benefit	(6)	—	—	(214)	—	(220)
Net income (loss)	263	187	134	266	(592)	258
Less: Net loss attributable to noncontrolling interest	—	—	—	(5)	—	(5)
Net income (loss) attributable to CVR Energy stockholders	\$ 263	\$ 187	\$ 134	\$ 271	\$ (592)	\$ 263

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Condensed Consolidating Statement of Operations

	Year Ended December 31, 2016					
	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Intercompany Elimination	Consolidated
(in millions)						
Net sales	\$ —	\$ —	\$ 4,432	\$ 356	\$ (6)	\$ 4,782
Operating costs and expenses:						
Cost of materials and other	—	—	3,779	93	(5)	3,867
Direct operating expenses	—	—	354	149	—	503
Depreciation and amortization	—	—	162	58	—	220
Cost of sales	—	—	4,295	300	(5)	4,590
Selling, general and administrative expenses	12	1	15	82	—	110
Depreciation and amortization	—	—	6	3	—	9
Loss on asset disposals	—	—	—	1	—	1
Operating income (loss)	(12)	(1)	116	(30)	(1)	72
Other income (expense):						
Interest expense, net	—	(32)	(2)	(49)	—	(83)
Other income, net	5	—	—	(3)	—	2
Income (loss) from subsidiaries	27	105	(64)	79	(147)	—
Income (loss) before income taxes	20	72	50	(3)	(148)	(9)
Income tax benefit	(5)	—	—	(14)	—	(19)
Net income (loss)	25	72	50	11	(148)	10
Less: Net loss attributable to noncontrolling interest	—	—	—	(15)	—	(15)
Net income (loss) attributable to CVR Energy stockholders	\$ 25	\$ 72	\$ 50	\$ 26	\$ (148)	\$ 25

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Condensed Consolidating Statement of Cash Flows

	Year Ended December 31, 2018					Consolidated
	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Intercompany Elimination	
(in millions)						
Net cash provided by (used in) operating activities	37	(31)	695	(74)	1	628
Cash flows from investing activities:						
Capital expenditures	(3)	—	(79)	(20)	—	(102)
Turnaround expenditures	—	—	(8)	—	—	(8)
Investment in affiliates, net of return of investment	203	630	679	432	(1,944)	—
Other investing activities	—	—	—	2	—	2
Net cash provided by (used in) investing activities	<u>200</u>	<u>630</u>	<u>592</u>	<u>414</u>	<u>(1,944)</u>	(108)
Cash flows from financing activities:						
CVR Energy shareholder dividends	(238)	—	—	—	—	(238)
CVR Refining unitholder distributions	—	—	(93)	—	—	(93)
Distributions or intercompany advances to other CVR Energy subsidiaries	—	(422)	(1,202)	(319)	1,943	—
Other financing activities	—	—	(1)	(2)	—	(3)
Net cash provided by (used in) financing activities	<u>(238)</u>	<u>(422)</u>	<u>(1,296)</u>	<u>(321)</u>	<u>1,943</u>	(334)
Net increase (decrease) in cash and cash equivalents	(1)	177	(9)	19	—	186
Cash and cash equivalents, beginning of period	4	163	261	54	—	482
Cash and cash equivalents, end of period	<u>\$ 3</u>	<u>\$ 340</u>	<u>\$ 252</u>	<u>\$ 73</u>	<u>\$ —</u>	\$ 668

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Condensed Consolidating Statement of Cash Flows

	Year Ended December 31, 2017					Consolidated
	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Intercompany Elimination	
(in millions)						
Net cash provided by (used in) operating activities	(29)	(32)	392	(73)	(10)	248
Cash flows from investing activities:						
Capital expenditures	(4)	—	(101)	(15)	—	(120)
Turnaround expenditures	—	—	(80)	—	—	(80)
Investment in affiliates, net of return of investment	206	1,083	73	198	(1,636)	(76)
Net cash provided by (used in) investing activities	202	1,083	(108)	183	(1,636)	(276)
Cash flows from financing activities:						
CVR Energy dividends	(174)	—	—	—	—	(174)
CVR Refining unitholder distributions	—	—	(47)	—	—	(47)
CVR Partners unitholder distributions	—	—	—	(2)	—	(2)
Distributions or intercompany advances to other CVR Energy subsidiaries	—	(1,190)	(338)	(118)	1,646	—
Other financing activities	—	—	(2)	(1)	—	(3)
Net cash provided by (used in) financing activities	(174)	(1,190)	(387)	(121)	1,646	(226)
Net decrease in cash and cash equivalents	(1)	(139)	(103)	(11)	—	(254)
Cash and cash equivalents, beginning of period	5	302	364	65	—	736
Cash and cash equivalents, end of period	\$ 4	\$ 163	\$ 261	\$ 54	\$ —	\$ 482

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Condensed Consolidating Statement of Cash Flows

	Year Ended December 31, 2016					Consolidated
	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Intercompany Elimination	
(in millions)						
Net cash provided by (used in) operating activities	(30)	(26)	444	(38)	(13)	337
Cash flows from investing activities:						
Capital expenditures	(10)	—	(100)	(23)	—	(133)
Turnaround expenditures	—	—	(70)	—	—	(70)
Acquisition of CVR Nitrogen, net of cash acquired	—	—	—	(64)	—	(64)
Investment in affiliates, net of return of investment	215	227	(155)	278	(570)	(5)
Other investing activities	—	—	3	(2)	—	1
Net cash provided by (used in) investing activities	205	227	(322)	189	(570)	(271)
Cash flows from financing activities:						
Proceeds on issuance of 2023 Notes, net of original issue discount	—	—	—	629	—	629
Principal and premium payments on 2021 Notes	—	—	—	(322)	—	(322)
Payments of revolving debt	—	—	—	(49)	—	(49)
Principal payments on CRNF credit facility	—	—	—	(125)	—	(125)
CVR Energy shareholder dividends	(174)	—	—	—	—	(174)
CVR Partners unitholder distributions	—	—	—	(42)	—	(42)
Distributions or intercompany advances to other CVR Energy subsidiaries	—	(69)	(280)	(234)	583	—
Other financing activities	(11)	—	(1)	—	—	(12)
Net cash provided by (used in) financing activities	(185)	(69)	(281)	(143)	583	(95)
Net increase (decrease) in cash and cash equivalents	(10)	132	(159)	8	—	(29)
Cash and cash equivalents, beginning of period	15	170	523	57	—	765
Cash and cash equivalents, end of period	\$ 5	\$ 302	\$ 364	\$ 65	\$ —	\$ 736

CVR Energy, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

(16) Selected Quarterly Financial Information (unaudited)

Summarized quarterly financial data for December 31, 2018 and 2017 is as follows:

(in millions)	Year Ended December 31, 2018							
	Quarter (unaudited)							
	First	Second		Third		Fourth		
Net sales	\$ 1,536	\$ 1,915	\$ 1,935	\$ 1,738				
Cost of materials and other (a)	1,179	1,560	1,556	1,388				
Direct operating expenses (a)	130	140	120	127				
Operating income	136	108	164	124				
Net income	93	70	108	95				
Net income attributable to noncontrolling interest	33	24	28	22				
Net income attributable to CVR Energy stockholders	\$ 60	\$ 46	\$ 80	\$ 73				
Basic and diluted earnings per share	\$ 0.69	\$ 0.53	\$ 0.84	\$ 0.73				
Dividends declared per share	\$ 0.50	\$ 0.50	\$ 0.75	\$ 0.75				
Weighted-average common shares outstanding - basic and diluted	86.8	86.8	95.8	100.6				
Year Ended December 31, 2017								
Quarter (unaudited)								
(in millions)	First	Second		Third		Fourth		
Net sales	\$ 1,507	\$ 1,434	\$ 1,454	\$ 1,593				
Cost of materials and other (a)	1,209	1,229	1,149	1,366				
Direct operating expenses (a)	124	121	140	131				
Operating income (loss)	84	(7)	72	(4)				
Net income (loss)	41	(28)	35	210				
Net income (loss) attributable to noncontrolling interest	14	(10)	1	(10)				
Net income (loss) attributable to CVR Energy stockholders	\$ 27	\$ (18)	\$ 34	\$ 220				
Basic and diluted earnings (loss) per share	\$ 0.31	\$ (0.21)	\$ 0.39	\$ 2.53				
Dividends declared per share	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50				
Weighted-average common shares outstanding - basic and diluted	86.8	86.8	86.8	86.8				

(a) Excludes depreciation and amortization expenses.