

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

Form 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2019

OR

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

For the transition period from _____ to _____

Commission file number: 001-33492

CVR ENERGY, INC.

(Exact name of registrant as specified in its charter)



2277 Plaza Drive, Suite 500, Sugar Land, Texas 77479

(Address of principal executive offices) (Zip Code)

(281) 207-3200

(Registrant's telephone number, including area code)

Delaware
*(State or other jurisdiction of
incorporation or organization)*

61-1512186
*(I.R.S. Employer
Identification No.)*

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer Accelerated filer Non-accelerated filer

Smaller reporting company Emerging growth company

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

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

There were 100,530,599 shares of the registrant's common stock outstanding at April 23, 2019.

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March 31, 2019

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This Quarterly Report on Form 10-Q (including documents incorporated by reference herein) contains statements with respect to our expectations or beliefs as to future events. These types of statements are “forward-looking” and subject to uncertainties. See “Important Information Regarding Forward-Looking Statements” section of this filing.

Important Information Regarding Forward Looking Statements

This Quarterly Report on Form 10-Q (this “Report”) contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), including, but not limited to, those under Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations. These forward-looking statements are subject to a number of risks and uncertainties, many of which are beyond our control. All statements other than statements of historical fact, including without limitation, statements regarding future operations, financial position, estimated revenues and losses, growth, capital projects, impacts of legal proceedings, projected costs, prospects, plans and objectives are forward-looking statements. The words “could,” “believe,” “anticipate,” “intend,” “estimate,” “expect,” “may,” “continue,” “predict,” “potential,” “project,” and similar terms and phrases are intended to identify forward-looking statements. Although we believe our assumptions concerning future events are reasonable, a number of risks, uncertainties and other factors could cause actual results and trends to differ materially from those projected or forward-looking, including but not limited to:

- volatile margins in the refining and nitrogen fertilizer industries and exposure to risks associated with the pricing and availability of crude oil, other feedstocks, pet coke, utilities, refined products, urea ammonium nitrate (“UAN”), ammonia, Renewable Identification Numbers (“RIN”) and environmental credits;
- the availability of adequate cash, credit and other sources of liquidity including volatility in the capital and credit markets and changes to our capital requirements;
- changes in the expected value of, benefits derived from, and our ability to successfully implement, business strategies, transactions and capital projects;
- the effects of transactions involving forward and derivative instruments;
- changes in (and in the application of) local, state and federal laws, rules, regulations and policies, including with respect to environmental matters (including climate change), health and safety, exports, transportation (including pipeline and trucking transportation of crude oil and other products), alternative energy or fuel sources, the end-use and application of fertilizers and taxes (including the tax status of CVR Partners);
- changes in economic conditions impacting our business and the business of our suppliers, customers, counterparties and lenders;
- interruption of or changes in the cost, availability or regulation of pipelines, vessels, trucks and other means of transporting crude oil, feedstocks, refined products, pet coke, UAN, ammonia and other products relating to our businesses;
- changes in competition in the petroleum and nitrogen fertilizer businesses including to our competitive advantages;
- the cyclical and/or seasonal nature of the nitrogen fertilizer and petroleum businesses;
- weather conditions, fires, tornadoes, floods or other natural disasters affecting our operations or the areas in which our feedstocks or refined products and fertilizers are marketed or sold;
- risks associated with governmental policies affecting the agricultural and petroleum refining industries;
- direct or indirect effects from actual or threatened terrorist incidents, security or cyber-security breaches or acts of war;
- dependence on significant customers and suppliers and the creditworthiness and performance by counterparties;
- our ability to license the technology used in or secure permits required for the petroleum business and nitrogen fertilizer business operations;
- adverse rulings, judgments or settlements in litigation or other legal or tax matters, including unexpected environmental remediation costs in excess of any reserves;
- refinery and nitrogen fertilizer facilities’ operating hazards and interruptions or production declines, including unscheduled maintenance or downtime and the availability and recoverability of adequate insurance coverage; and
- the factors described in greater detail under “Risk Factors” in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2018 and our other filings with the SEC.

All forward-looking statements contained in this Report only speak as of the date of this Report. We undertake no obligation to publicly update or revise any forward-looking statements to reflect events or circumstances that occur after the date of this Report, or to reflect the occurrence of unanticipated events, except to the extent required by law.

PART I. FINANCIAL INFORMATION**Item 1. Financial Statements**

CVR Energy, Inc. and Subsidiaries
CONDENSED CONSOLIDATED BALANCE SHEETS
(unaudited)

(in millions)	ASSETS	<u>March 31, 2019</u>	<u>December 31, 2018</u>
ASSETS			
Current assets:			
Cash and cash equivalents (CVR Partners LP (“CVR Partners”): \$97 and \$62, respectively)		\$ 467	\$ 668
Accounts receivable (CVR Partners: \$17 and \$62, respectively)		193	169
Due from parent		4	4
Inventories (CVR Partners: \$72 and \$64, respectively)		403	380
Prepaid expenses and other current assets		58	72
Total current assets		<u>1,125</u>	<u>1,293</u>
Property, plant and equipment, net of accumulated depreciation (CVR Partners: \$997 and \$1,015, respectively)		2,418	2,430
Other long-term assets		331	277
Total assets		<u>\$ 3,874</u>	<u>\$ 4,000</u>
LIABILITIES AND EQUITY			
Current liabilities:			
Accounts payable (CVR Partners: \$23 and \$27, respectively)		\$ 359	\$ 320
Other current liabilities (CVR Partners: \$102 and \$96, respectively)		221	176
Total current liabilities		<u>580</u>	<u>496</u>
Long-term liabilities:			
Long-term debt and finance lease obligations, net of current portion (CVR Partners: \$630 and \$629, respectively)		1,191	1,167
Deferred income taxes		395	380
Other long-term liabilities		50	14
Total long-term liabilities		<u>1,636</u>	<u>1,561</u>
Commitments and contingencies (See Note 12)			
Equity:			
CVR stockholders’ equity:			
Common stock \$0.01 par value per share, 350,000,000 shares authorized, 100,629,209 shares issued		1	1
Additional paid-in-capital		1,506	1,474
Retained deficit		(162)	(187)
Treasury stock, 98,610 shares at cost		(2)	(2)
Total CVR stockholders’ equity		<u>1,343</u>	<u>1,286</u>
Noncontrolling interest		315	657
Total equity		<u>1,658</u>	<u>1,943</u>
Total liabilities and equity		<u>\$ 3,874</u>	<u>\$ 4,000</u>

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

CVR Energy, Inc. and Subsidiaries
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited)

	Three Months Ended March 31,	
	2019	2018
(in millions, except per share data)		
Net sales	\$ 1,486	\$ 1,537
Operating costs and expenses:		
Cost of materials and other	1,101	1,180
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	126	130
Depreciation and amortization	65	64
Cost of sales	1,292	1,374
Selling, general and administrative expenses (exclusive of depreciation and amortization as reflected below)	30	24
Depreciation and amortization	2	3
Loss on asset disposals	2	—
Operating income	160	136
Other income (expense):		
Interest expense, net	(26)	(27)
Other income, net	3	2
Income before income tax expense	137	111
Income tax expense	35	18
Net income	102	93
Less: Net income attributable to noncontrolling interest	1	33
Net income attributable to CVR Energy stockholders	\$ 101	\$ 60
Basic and diluted earnings per share	\$ 1.00	\$ 0.69
Dividends declared per share	\$ 0.75	\$ 0.50
Weighted-average common shares outstanding:		
Basic and diluted	100.5	86.8

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

CVR Energy, Inc. and Subsidiaries
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)

(in millions)	Three Months Ended March 31,	
	2019	2018
Cash flows from operating activities:		
Net income	\$ 102	\$ 93
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	67	67
Deferred income tax expense (benefit)	15	(2)
Other non-cash items	8	2
Changes in assets and liabilities:		
Current assets and liabilities	34	(133)
Non-current assets and liabilities	2	(1)
Net cash provided by operating activities	228	26
Cash flows from investing activities:		
Capital expenditures	(29)	(20)
Turnaround expenditures	(13)	(1)
Net cash used in investing activities	(42)	(21)
Cash flows from financing activities:		
Acquisition of CVR Refining common units	(301)	—
Dividends to CVR Energy's stockholders	(75)	(43)
Distributions to CVR Refining or CVR Partners' noncontrolling interest holders	(9)	(23)
Other financing activities	(2)	(1)
Net cash used in financing activities	(387)	(67)
Net decrease in cash and cash equivalents	(201)	(62)
Cash and cash equivalents, beginning of period	668	482
Cash and cash equivalents, end of period	\$ 467	\$ 420

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

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

(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 (“The Petroleum Segment” or “CVRR”) and 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.”

Icahn Enterprises L.P. (“IEP”) and its affiliates owned approximately 71% of the Company’s outstanding common shares as of March 31, 2019.

CVR Refining, LP

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. Amounts drawn under the new credit agreement were fully repaid in February 2019. See Note 7 (“Long-Term Debt”) for further information on the credit agreement. The consolidated results of operations and financial position of CVR Refining are reflected as CVR’s petroleum segment (the “Petroleum Segment”). Following this transaction, CVRR became a wholly-owned subsidiary of the Company and therefore is no longer accounted for as a variable interest entity.

Effective February 8, 2019, CVRR’s reporting obligations under the Exchange Act were suspended. Upon the closing of the CVRR Unit Purchase, the Company, and certain of the Company’s subsidiaries, 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. See Note 16 (“Guarantor Financial Information”) for further discussion and the condensed consolidating financial statements.

CVR Partners, LP

As of March 31, 2019, public security holders held approximately 66% of CVR Partners’ outstanding common units, and 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 Partners’ general partner, CVR GP, LLC, which holds a non-economic general partner interest. The noncontrolling interest reflected on the condensed consolidated balance sheets of CVR is impacted by the net income of, and distributions from, CVR Partners.

(2) Basis of Presentation

The accompanying condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and in accordance with the rules and regulations of the Securities and Exchange Commission (the “SEC”). These condensed consolidated financial statements should be read in conjunction with the December 31, 2018 audited consolidated financial statements and notes thereto included in CVR Energy’s Annual Report on Form 10-K for the year ended December 31, 2018, which was filed with the SEC on February 21, 2019 the

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

(the “2018 Form 10-K”). Our condensed consolidated financial statements include the consolidated results of CVR Partners, which is defined as a variable interest entity.

In the opinion of the Company’s management, the accompanying condensed consolidated financial statements reflect all adjustments that are necessary to fairly present the financial position of the Company as of March 31, 2019 and December 31, 2018, the results of operations of the Company for the three month periods ended March 31, 2019 and 2018 and the cash flows of the Company for the three month periods ended March 31, 2019 and 2018. Such adjustments are of a normal recurring nature, unless otherwise disclosed.

Certain reclassifications have been made within the condensed consolidated statements of operations for the three months ended March 31, 2018 to include gain (loss) on derivatives within the Cost of Materials and Other financial statement line item to conform with current presentation.

The preparation of the condensed consolidated financial statements in conformity with GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities. Actual results could differ from those estimates. Results of operations and cash flows for the interim periods presented are not necessarily indicative of the results that will be realized for the year ending December 31, 2019 or any other interim or annual period.

(3) Recent Accounting Pronouncements and Accounting Changes

Recent Accounting Pronouncement - Adoption of New Lease Standard

In February 2016, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“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 a right-of-use (“ROU”) asset representing its right to use of the underlying asset for the lease term on the condensed consolidated balance sheet. The ROU asset is classified as Other long-term assets on the condensed consolidated balance sheet. The current and long-term lease liabilities are classified as Other current liabilities and Other long-term liabilities, respectively on the condensed consolidated balance sheet.

We adopted Topic 842 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 Topic 842, we made the following elections:

- Under the short-term lease exception provided for in Topic 842, only 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, respectively; 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.

The Company’s adoption of Topic 842 resulted in the recognition of additional ROU assets and lease liabilities of approximately \$56 million as of January 1, 2019, in addition to the recognition of a finance lease asset of \$26 million with an obligation of \$23 million. There were no impacts to our condensed consolidated statements of operations or cash flows. See Note 6 (“Leases”) for further discussion.

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-year period

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

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 condensed consolidated balance sheet for the period ended December 31, 2018 and condensed consolidated statement of operations and cash flows for the three months period ended March 31, 2018 have been retrospectively adjusted to apply the new method retrospectively. These turnaround costs, and related accumulated amortization, are included in the condensed consolidated balance sheet as Other long-term assets. The amortization expense related to turnaround costs is included in depreciation and amortization in the condensed consolidated statement of operations. CVR Partners will continue to follow the direct expensing method, therefore this change had no impact on CVR Partners' current condensed consolidated financial statements.

The policy change for turnaround expenses retrospectively impacted the Company's December 31, 2018 condensed consolidated balance sheet as presented in these condensed consolidated financial statements. The adoption of Topic 842 on January 1, 2019 incrementally impacted the Company's consolidated balance sheet as of that date. The following presents the financial statement line items impacted by the turnaround accounting change and the Company's Topic 842 adoption as of the respective dates.

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

(in millions)	As Previously Reported	Effect of Turnaround Accounting Change (Unaudited)	As Stated (Unaudited)
Property, plant and equipment, net of accumulated depreciation (CVR Partners: \$997 and \$1,015, respectively)	\$ 2,445	\$ (15)	\$ 2,430
Other long-term assets	169	108 (1)	277
Total assets	<u>\$ 3,907</u>	<u>\$ 93</u>	<u>\$ 4,000</u>
Long-term liabilities:			
Deferred income taxes	\$ 362	\$ 18 (2)	\$ 380
Total long-term liabilities	1,543	18	1,561
Equity:			
CVR stockholders' equity:			
Additional paid-in-capital	1,473	1	1,474
Retained deficit	(226)	39	(187)
Total CVR stockholders' equity	1,246	40	1,286
Noncontrolling interest	622	35	657
Total equity	1,868	75	1,943
Total liabilities and equity	<u>\$ 3,907</u>	<u>\$ 93</u>	<u>\$ 4,000</u>

(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.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

Effect of Topic 842 Adoption on Condensed Consolidated Balance Sheet as of January 1, 2019

(in millions)	December 31, 2018 As Stated (1) (Unaudited)	Effect of Adoption of Topic 842 - Leases (Unaudited)	January 1, 2019 As Adjusted
Current assets:			
Prepaid expenses and other current assets	\$ 72	\$ (3) (2)	\$ 69
Total current assets	1,293	(3)	1,290
Property, plant and equipment, net of accumulated depreciation (CVR Partners: \$997 and \$1,015, respectively)	2,430	26 (3)	2,456
Other long-term assets	277	56 (4)	333
Total assets	\$ 4,000	\$ 79	\$ 4,079
Current liabilities:			
Other current liabilities (CVR Partners: \$102 and \$96, respectively)	\$ 176	\$ 16 (5)	\$ 192
Total current liabilities	496	16	512
Long-term liabilities:			
Long-term debt and finance lease obligations, net of current portion (CVR Partners: \$630 and \$629, respectively)	1,167	23 (3)	1,190
Other long-term liabilities	14	40 (5)	54
Total long-term liabilities	1,561	63	1,624
Equity:			
Total liabilities and equity	\$ 4,000	\$ 79	\$ 4,079

(1) Represents the retrospectively adjusted balance sheet amounts upon reflection of the turnaround accounting change prior to the adoption of Topic 842.

(2) Represents lease prepayments reclassified to right-of-use assets.

(3) The additional \$26 million right-of-use asset and \$23 million in lease liability represents a lease with a third-party that met the definition of a finance lease under ASC 842 as compared to an operating lease under ASC 840.

(4) Represents recognition of initial right-of-use assets for operating leases, including the reclassification of certain lease prepayments as noted above.

(5) Represents the initial recognition of lease liabilities.

Due to the retrospective adjustments for the turnaround accounting change, the condensed consolidated statement of operations and condensed consolidated statement of cash flows for the three months ended March 31, 2018 have adjusted. The impacts to previously reported amounts are shown below only for those line items impacted.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

Effect of Turnaround Accounting on Condensed Consolidated Statement of Operations and Condensed Consolidated Statement of Cash Flows for Three Months Ended March 31, 2018

(in millions)	As Previously Reported	Effect of Turnaround Accounting Change (Unaudited)	As Stated
Condensed Consolidated Statement of Operations			
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	\$ 132	\$ (2)	\$ 130
Depreciation and amortization	49	15	64
Income tax expense	21	(3)	18
Net income	103	(10)	93
Less: Net income attributable to noncontrolling interest	37	(4)	33
Net income attributable to CVR Energy stockholders	<u>\$ 66</u>	<u>\$ (6)</u>	<u>\$ 60</u>
Condensed Consolidated Statement of Cash Flows			
Net cash provided by operating activities	\$ 24	\$ 2	\$ 26
Net cash used by investing activities	\$ (20)	\$ (1)	\$ (21)

New Accounting Standards Issued But Not Yet Implemented

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. The ASU 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.

(4) Inventories

Inventories consisted of the following:

(in millions)	March 31, 2019	December 31, 2018
Finished goods	\$ 184	\$ 186
Raw materials	103	105
In-process inventories	36	12
Parts, supplies and other	80	77
Total inventories	<u>\$ 403</u>	<u>\$ 380</u>

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

(5) Property, Plant and Equipment

Property, plant and equipment consisted of the following:

(in millions)	March 31, 2019	December 31, 2018
Machinery and equipment	\$ 3,830	\$ 3,785
Buildings	83	82
Construction in progress	73	102
Land and improvements	44	43
Furniture and fixtures	33	33
ROU finance leases	27	—
Other	17	22
	<u>4,107</u>	<u>4,067</u>
Less: Accumulated depreciation	1,689	1,637
Total property, plant and equipment, net	<u>\$ 2,418</u>	<u>\$ 2,430</u>

At March 31, 2019, the Company continued to actively market assets with a carrying value of \$33 million. The carrying value of these assets held for sale were included in other long-term assets on our Condensed Consolidated Balance Sheets. No loss had been recognized associated with these held for sale assets.

(6) Leases**Lease Overview**

We lease certain pipelines, storage tanks, railcars, office space, land, and equipment across our refining, fertilizer and corporate operations. Leases with an initial term of 12 months or less are not recorded on the balance sheet. Most leases include one or more options to renew, with renewal terms that can extend the lease term from one to 20 years or more. The exercise of lease renewal options is at our sole discretion. Certain leases also include options to purchase the leased property. The depreciable life of assets and leasehold improvements is limited by the expected lease term, unless there is a transfer of title or purchase option reasonably certain of exercise. Certain of our lease agreements include rental payments adjusted periodically for factors such as inflation. Our lease agreements do not contain any material residual value guarantees or material restrictive covenants. Additionally, we do not have any material lessor or sub-leasing arrangements.

The adoption of Topic 842 impacted our January 1, 2019 condensed consolidated balance sheet as shown below only for those line items impacted.

Effect of Initial Adoption of Topic 842 - January 1, 2019

ROU Assets. As of January 1, 2019, upon initial recognition, our ROU assets for operating and finance leases were comprised of the following:

(in millions)	January 1, 2019 (initial recognition)
Pipeline and storage agreements (1)	\$ 29
Railcar leases (2)	15
Real Estate and other leases (3)	35
Total ROU assets	<u>\$ 79</u>

(1) Includes finance leased assets of \$1 million as of January 1, 2019.

(2) Includes \$14 million of railcar leases recognized by CVR Partners.

(3) Includes finance leased assets of \$25 million as of January 1, 2019.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

Lease Liabilities. As of January 1, 2019, upon initial recognition, our lease liabilities for operating and finance leases were comprised of the following:

(in millions)	Consolidated Balance Sheet Classification	January 1, 2019 (initial recognition)
Current liabilities:		
Operating leases	Other current liabilities	\$ 14
Finance leases	Other current liabilities	2
Long-term liabilities:		
Operating leases	Other long-term liabilities	40
Finance leases	Long-term debt and finance lease obligations, net of current portion	23
Total lease liabilities		\$ 79

Balance Sheet Summary as of March 31, 2019

The following tables summarize the right of use asset and lease liability balances for the Company's operating and finance leases at March 31, 2019:

(in millions)	March 31, 2019
Operating Leases:	
ROU assets, net	
Pipeline and storage	\$ 26
Railcars	14
Real estate and other	11
Lease liability	
Pipelines and storage	\$ 27
Railcars	14
Real estate and other	9

(in millions)	March 31, 2019
Financing Leases:	
ROU assets, net	
Pipeline and storage	\$ 31
Real estate and other	27
Lease liability	
Pipelines and storage	\$ 42
Real estate and other	27

Lease Expense Summary for the Three-Month Period Ended March 31, 2019

We recognize lease expense for these leases on a straight-line basis over the lease term. For the three months ended March 31, 2019, we recognized net lease expense comprised of the following components:

(in millions)	March 31, 2019
Operating lease expense	\$ 4
Financing lease expense:	
Amortization of ROU	\$ 2
Interest expense on lease liability	2

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

Short-term lease expense, recognized within direct operating expenses, was \$2 million for the three-month period ended March 31, 2019.

Lease Terms and Discount Rates

The following outlines the remaining lease terms and discount rates used in the measurement of the Company's ROU assets and liabilities:

	March 31, 2019	January 1, 2019
Weighted-average remaining lease term (years)		
Operating Leases	4	4
Finance Leases	10	10
Weighted-average discount rate		
Operating Leases	5.8%	5.8%
Finance Leases	9.6%	9.8%

Maturities of Lease Liabilities

The following summarizes the remaining minimum lease payments through maturity of the Company's right-of-use assets and liabilities at March 31, 2019:

(in millions)	Operating Leases	Financing Leases
Remainder of 2019	\$ 13	\$ 8
2020	14	11
2021	12	11
2022	9	11
2023	6	10
Thereafter	4	53
Total lease payments	58	104
Less: imputed interest	(8)	(35)
Total lease liability	\$ 50	\$ 69

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

(7) Long-Term Debt

Long-term debt consists of the following:

(in millions)	March 31, 2019	December 31, 2018
CVR Partners:		
9.25% Senior Secured Notes due 2023 (1)	\$ 645	\$ 645
6.50% Senior Notes due 2021	2	2
Unamortized discount and debt issuance costs	(17)	(18)
Total CVR Partners Debt	\$ 630	\$ 629
6.50% Senior Notes due 2022 (2)	\$ 500	\$ 500
Finance lease obligations	69	44
Unamortized debt issuance cost	(3)	(3)
Current portion of finance lease obligations	(5)	(3)
Total Other Debt	\$ 561	\$ 538
Total Long-Term Debt	\$ 1,191	\$ 1,167

(1) 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.

(2) Debt issuance costs associated with this debt totaled \$9 million. On January 29, 2019, the 2022 Senior Notes were amended such that the 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 14 ("Supplemental Cash Flow Information") for further discussion and implications of this change to guarantor.

Credit Facilities

(in millions)	Total Capacity	Amount Borrowed as of March 31, 2019	Outstanding Letters of Credit	Available Capacity as of March 31, 2019	Maturity Date
Amended and Restated Asset Based (ABL) Credit Facility (3)	\$ 400	\$ —	\$ 7	\$ 393	November 14, 2022
Asset Based (ABL) Credit Facility (4)	50	—	—	50	September 30, 2021

(3) 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.

(4) 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.

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. Borrowings under the Credit Agreement were used to fund a portion of the CVRR Unit Purchase. All amounts borrowed were repaid on February 11, 2019.

Covenant Compliance

The Company is in compliance with all covenants of the ABL credit facilities and the senior notes as of March 31, 2019.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

(8) Shareholders Equity

The following table summarizes the shareholders equity and non-controlling interest balances for the three months ended March 31, 2019 and March 31, 2018.

(in millions)	Total CVR Stockholders' Equity	Noncontrolling Interest	Total Equity
Balance at December 31, 2018	\$ 1,286	\$ 657	\$ 1,943
Net income	101	1	102
Dividends to CVR Energy stockholders	(75)	—	(75)
Distributions to CVR Partners' public unitholders	—	(9)	(9)
Effect of turnaround accounting change	34	—	34
Acquisition of CVR Refining common units (1)	(1)	(334)	(335)
Other	(2)	—	(2)
Balance at March 31, 2019	<u>\$ 1,343</u>	<u>\$ 315</u>	<u>\$ 1,658</u>

(1) Included within this amount is \$34 million which reflects the impact of the change in accounting policy for turnaround expenditures.

(in millions)	Total CVR Stockholders' Equity	Noncontrolling Interest	Total Equity
Balance at December 31, 2017	\$ 919	\$ 785	\$ 1,704
Net income	60	33	93
Dividends to CVR Energy stockholders	(43)	—	(43)
Distributions to CVR Refining public unitholders	—	(23)	(23)
Effect of turnaround accounting change	68	50	118
Balance at March 31, 2018	<u>\$ 1,004</u>	<u>\$ 845</u>	<u>\$ 1,849</u>

Dividends to CVR Energy Stockholders

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 was paid on March 11, 2019. Of this amount, IEP received \$54 million in respect of its ownership interest in the Company's shares. Dividends are subject to change at the discretion of the board of directors.

For the first quarter of 2019, the Company, upon approval by the Company's board of directors on April 24, 2019, declared a cash dividend of \$0.75 per share, or \$75 million payable, on May 13, 2019 to shareholders of record as of May 6, 2019. Of this amount, IEP will receive \$54 million due to its ownership interest in the Company's shares.

Distributions to CVR Partners' Unitholders

For the fourth quarter of 2018, CVR Partners declared a cash distribution of \$0.12 per common unit, or \$13.9 million, which was paid on March 11, 2019. Of this amount, the Company received approximately \$5 million, with the remaining amount payable to public unitholders.

For the first quarter of 2019, CVR Partners, upon approval by CVR GP's board of directors on April 24, 2019, declared a distribution of \$0.07 per common unit, or \$8 million, payable on May 13, 2019 to unitholders of record as of May 6, 2019. Of

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

this amount, the Company will receive approximately \$3 million, with the remaining amount payable to public unitholders. Distributions are subject to change at the discretion of the board of directors of CVR Partners' general partner.

(9) Revenue

The following tables present the Company's revenue disaggregated by major product. The following tables include a reconciliation of the disaggregated revenue with the Company's reportable segments.

(in millions)	Three Months Ended March 31, 2019			
	Petroleum	Nitrogen Fertilizer	Other / Eliminations	Consolidated
Major Product				
Gasoline	\$ 673	\$ —	\$ —	\$ 673
Distillates (1)	651	—	—	651
Ammonia	—	13	—	13
UAN	—	64	—	64
Other urea products	—	5	—	5
Freight revenue	6	8	—	14
Other (2)	43	2	(3)	42
Revenue from product sales	<u>1,373</u>	<u>92</u>	<u>(3)</u>	<u>1,462</u>
Crude oil sales	23	—	—	23
Other revenue (2)	1	—	—	1
Total revenue	<u>\$ 1,397</u>	<u>\$ 92</u>	<u>\$ (3)</u>	<u>\$ 1,486</u>

(in millions)	Three Months Ended March 31, 2018			
	Petroleum	Nitrogen Fertilizer	Other / Eliminations	Consolidated
Major Product				
Gasoline	\$ 712	\$ —	\$ —	\$ 712
Distillates (1)	652	—	—	652
Ammonia	—	12	—	12
UAN	—	53	—	53
Other urea products	—	5	—	5
Freight revenue	5	9	—	14
Other (2)	56	—	(1)	55
Revenue from product sales	<u>1,425</u>	<u>79</u>	<u>(1)</u>	<u>1,503</u>
Crude oil sales	32	—	—	32
Other revenue	1	1	—	2
Total revenue	<u>\$ 1,458</u>	<u>\$ 80</u>	<u>\$ (1)</u>	<u>\$ 1,537</u>

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

(2) Other revenue consists primarily of feedstock and asphalt sales and Cushing, OK storage tank lease revenue. See Note 5 ("Property, Plant and Equipment") for further discussion on the Cushing, OK storage tanks.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

Petroleum

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 petroleum segment has elected to apply the sales tax practical expedient, whereby qualifying excise and other taxes collected from customers and remitted to governmental authorities are not included in reported 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 determined that it does not need to 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.

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 32 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. The petroleum segment has determined that product returns or refunds are very rare and will account for them 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 rebilled to customers to reimburse the petroleum segment for expenses incurred from a pipeline operator. An offsetting expense is included in cost of materials and other.

Nitrogen Fertilizer

The nitrogen fertilizer segment sells its products on a wholesale basis under a contract or by purchase order. The nitrogen fertilizer segment's contracts with customers, including purchase orders, generally contain fixed pricing and most 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, at one of the nitrogen fertilizer segment's 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 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, the nitrogen fertilizer segment does not record a specific warranty reserve or consider activities related to such warranty, if any, 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. A small portion of the nitrogen fertilizer partnership's revenue includes contracts extending beyond one year,

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

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.

Transaction price allocated to remaining performance obligations

As of March 31, 2019, CVR Partners had approximately \$10 million of remaining performance obligations for contracts with an original expected duration of more than one year. CVR Partners expects to recognize approximately 39% of these performance obligations as revenue by the end of 2019, an additional 30% by 2020 and the remaining balance thereafter.

Contract balances

The CVR Partners' deferred revenue is a contract liability 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.

A summary of CVR Partners' deferred revenue activity during the three months ended March 31, 2019 is presented below:

(in millions)	
Balance at December 31, 2018	<u>\$ 69</u>
Add:	
New prepay contracts entered into during the period (1)	9
Less:	
Revenue recognized that was included in the contract liability balance at the beginning of the period	12
Revenue recognized related to contracts entered into during the period	<u>1</u>
Balance at March 31, 2019	<u>\$ 65</u>

(10) 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 March 31, 2019, the Petroleum Segment had open commitments to purchase 26 million RINs.

Commodity derivatives include commodity swaps and forward purchase and sale commitments. There were no outstanding commodity swap positions as of March 31, 2019.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

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 condensed consolidated statements of operations:

Gain (Loss) on Derivatives

(in millions)	Three Months Ended March 31,	
	2019	2018
Forward purchases	\$ 17	\$ 14
Swaps	—	45
Futures	(1)	—
Total gain (loss) on derivatives, net	<u>\$ 16</u>	<u>\$ 59</u>

Open Commodity Derivative Instruments

(in millions of barrels)	Three Months Ended March 31,	
	2019	2018
Commodity Swap Instruments:		
2-1-1 Crack spreads	—	2
Distillate Crack spreads	—	1
Gasoline Crack spreads	—	1
Purchase and Sale Commitments - Futures Contracts:		
Canadian crude oil	2	4

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 condensed consolidated balance sheets as follows:

(in millions)	Derivative Assets		Derivative Liabilities	
	March 31, 2019	December 31, 2018	March 31, 2019	December 31, 2018
Commodity Derivatives	\$ 1	\$ 8	\$ —	\$ 1
Less: Counterparty Netting	—	(1)	—	(1)
Total Net Fair Value of Derivatives	<u>\$ 1</u>	<u>\$ 7</u>	<u>\$ —</u>	<u>\$ —</u>

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)

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

The following table sets forth the assets and liabilities measured or disclosed at fair value on a recurring basis, by input level, as of March 31, 2019 and December 31, 2018:

(in millions)	March 31, 2019			
	Level 1	Level 2	Level 3	Total
Location and Description				
Other current assets (investments)	—	1	—	1
Total Assets	\$ —	\$ 1	\$ —	\$ 1
Other current liabilities (Renewable Fuel Standard “RFS” obligation)	—	(16)	—	(16)
Total Liabilities	\$ —	\$ (16)	\$ —	\$ (16)

(in millions)	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Location and Description				
Other current assets (investments)	—	7	—	7
Total Assets	\$ —	\$ 7	\$ —	\$ 7
Other current liabilities (RFS obligation)	—	(2)	—	(2)
Total Liabilities	\$ —	\$ (2)	\$ —	\$ (2)

As of March 31, 2019 and December 31, 2018, the only financial assets and liabilities that are measured at fair value on a recurring basis are the Company’s cash equivalents, investments, derivative instruments, and 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 March 31, 2019.

(11) Share-Based Compensation

A summary of compensation expense during the three months ended March 31, 2019 and 2018 is presented below:

(in millions)	Three Months Ended March 31,	
	2019	2018
CVR Energy LTIP		
Performance Unit Award	\$ —	\$ 1
CVR Refining LTIP		
Phantom Units Award	1	1
CVR Partners LTIP		
Phantom Units Award	1	1
Incentive Unit Awards	3	(1)
Total Share-Based Compensation Expense	\$ 5	\$ 2

(12) Commitments and Contingencies

Except as described below, there have been no material changes in the Company’s commitments and contingencies disclosed in the 2018 Form 10-K. 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. While it is not possible to predict the outcome of such proceedings, if one or more of them were decided against us, the Company believes there would be no material impact on its consolidated financial statements.

Crude Oil Supply Agreement

On August 31, 2012, an indirect, wholly-owned subsidiary of the Petroleum Segment 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 39% and 35% for the three months ended March 31, 2019 and 2018, 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.

Renewable Fuel Standards

The Petroleum Segment is subject to the 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. The petroleum segment 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.

The Company recognized expense of approximately \$13 million and a benefit of \$23 million for the three months ended March 31, 2019 and 2018, 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 the Petroleum Segment’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 its RFS obligation as of the reporting date.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

Litigation

The U.S. Attorney's office for the Southern District of New York contacted CVR Energy in September 2017 seeking production of information pertaining to CVR Refining's, CVR Energy's and Mr. Carl C. Icahn's activities relating to the RFS and Mr. Icahn's former role as an advisor to the President. CVR Energy is cooperating with the request and provided information in response to the subpoena. The U.S. Attorney's office has not made any claims or allegations against CVR Energy or Mr. Icahn. CVR Energy maintains a strong compliance program and, while no assurances can be made, CVR Energy does not believe this inquiry will have a material impact on its business, financial condition, results of operations or cash flows.

On August 21, 2018, Coffeyville Resources Refining and Marketing LLC ("CRRM"), a subsidiary of CVRR, 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 2019, and this tolling agreement was extended in March 2019 through November 30, 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.

In 2008, Coffeyville Resources Nitrogen Fertilizer LLC ("CRNF"), a subsidiary of CVR Partners LP, 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. CVR Partners continues to monitor this matter. In April 2019, CRNF and the County executed an agreement under which the County agreed to withdraw its petition to the Kansas Supreme Court and CRNF is expected to recover \$7.9 million through favorable property tax assessments from 2019 through 2028, subject to the terms of the settlement agreement.

During 2019, CVR Energy, CVR Refining, CVR Refining Holdings, IE, and certain directors and affiliates have been named in nine 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.

(13) Business Segments

CVR Energy's revenues are derived from two operating segments: the petroleum segment and the nitrogen fertilizer segment. The Company evaluates the performance of its segments based primarily on segment operating income and EBITDA. For the purposes of the operating segment disclosure, the company presents operating income as it is the most comparable measure to the amounts presented on the condensed consolidated statement of operations. The other amounts reflect intercompany eliminations, corporate cash and cash equivalents, income tax activities and other corporate activities that are not allocated to the operating segments.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

The following table summarizes certain operating results and capital expenditures information by segment:

	Three Months Ended March 31,	
	2019	2018
<i>(in millions)</i>		
Net sales		
Petroleum	\$ 1,397	\$ 1,458
Nitrogen Fertilizer	92	80
Other	(3)	(1)
Total	<u>\$ 1,486</u>	<u>\$ 1,537</u>
Operating Income		
Petroleum	\$ 156	\$ 143
Nitrogen Fertilizer	9	(3)
Other	(5)	(4)
Total operating income	<u>160</u>	<u>136</u>
Interest expense, net	(26)	(27)
Other income, net	3	2
Income before income taxes	<u>\$ 137</u>	<u>\$ 111</u>
Depreciation and amortization		
Petroleum	49	48
Nitrogen Fertilizer	16	16
Other	2	3
Total	<u>\$ 67</u>	<u>\$ 67</u>
Capital expenditures		
Petroleum	\$ 20	\$ 14
Nitrogen Fertilizer	3	4
Other	—	1
Total	<u>\$ 23</u>	<u>\$ 19</u>

The following table summarizes total assets by segment:

	March 31, 2019	December 31, 2018
<i>(in millions)</i>		
Petroleum	\$ 2,714	\$ 2,452
Nitrogen Fertilizer	1,247	1,254
Other (1)	(87)	294
Total Assets	<u>\$ 3,874</u>	<u>\$ 4,000</u>

(1) Includes elimination of intercompany assets.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

(14) Supplemental Cash Flow Information

Cash flows related to income taxes, interest and construction in process were as follows:

(in millions)	Three Months Ended March 31,	
	2019	2018
Supplemental disclosures:		
Cash paid for interest	2	3
Non-cash investing activities:		
Capital expenditure additions included in accounts payable	\$ (6)	\$ (1)
Turnaround expenditures included in accounts payable	(7)	—

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

(15) Related Party Transactions***Icahn Enterprises***

The following is a summary of dividends paid to the Company's stockholders, including IEP, for the respective quarters to which the distributions relate:

<i>(in millions, except per share data)</i>	<u>December 31, 2018</u>	<u>Total Dividends Paid in 2019</u>
Amount paid to IEP	\$ 54	\$ 54
Amount paid to public stockholders	21	21
Total amount paid	<u>\$ 75</u>	<u>\$ 75</u>
Per common share	\$ 0.75	\$ 0.75
Shares outstanding (in millions)	100.6	100.6

Activity associated with the Company's related party arrangements for the three month periods ended March 31, 2019 and 2018 is summarized below:

Expenses with related parties

<i>(in millions)</i>	<u>Three Months Ended March 31,</u>	
	<u>2019</u>	<u>2018</u>
<u>Cost of materials and other</u>		
Joint Venture Transportation Agreement:		
Enable	\$ 2	\$ —

Amounts due from related parties

<i>(in millions)</i>	<u>March 31, 2019</u>	<u>December 31, 2018</u>
Tax Allocation Agreement:		
American Entertainment Properties Corporation ("AEPC")	\$ 4	\$ 4

(16) Guarantor Financial Information

CVR Refining's 2022 Senior Notes are guaranteed on a senior unsecured basis by the Company and certain wholly-owned subsidiaries, including CVR Refining and certain of its subsidiaries (the "Guarantors"). The guarantees are full and unconditional and joint and several among the Guarantors.

The information is presented in accordance with the requirements of Rule 3-10 under the SEC's Regulation S-X and prepared on the equity basis of accounting. The financial information may not necessarily be indicative of results of operations, cash flows or financial position had the Guarantors operated as independent entities. The Company has not presented separate financial and narrative information for each of the Guarantors because it believes such financial and narrative information would not provide any additional information that would be material in evaluating the sufficiency of the Guarantors.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

Condensed Consolidating Balance Sheet

March 31, 2019

(in millions)	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Intercompany Elimination	Consolidated
ASSETS						
Current assets:						
Cash and cash equivalents	\$ 8	\$ 306	\$ 54	\$ 99	\$ —	\$ 467
Accounts receivable	—	—	176	17	—	193
Due to/from parent	4	—	—	—	—	4
Intercompany receivable	(65)	—	13	73	(21)	—
Inventories	—	—	331	72	—	403
Prepaid expenses and other current assets	26	—	30	—	2	58
Total current assets	(27)	306	604	261	(19)	1,125
Property, plant and equipment, net of accumulated depreciation	—	—	1,418	1,000	—	2,418
Investment in and advances from subsidiaries	1,444	1,696	166	1,726	(5,032)	—
Other long-term assets	—	1	278	52	—	331
Total assets	<u>\$ 1,417</u>	<u>\$ 2,003</u>	<u>\$ 2,466</u>	<u>\$ 3,039</u>	<u>\$ (5,051)</u>	<u>\$ 3,874</u>
LIABILITIES AND PARTNERS' CAPITAL						
Current liabilities:						
Accounts payable	\$ 1	\$ —	\$ 334	\$ 24	\$ —	\$ 359
Intercompany payables	—	—	8	13	(21)	—
Other current liabilities	49	14	76	80	2	221
Total current liabilities	50	14	418	117	(19)	580
Long-term liabilities:						
Long-term debt and finance lease obligations, net of current portion	—	496	64	631	—	1,191
Investment and advances from subsidiaries	—	—	—	16	(16)	—
Deferred income taxes	20	—	—	375	—	395
Other long-term liabilities	4	—	35	11	—	50
Total long-term liabilities	24	496	99	1,033	(16)	1,636
Commitments and contingencies						
Equity:						
Total CVR stockholders' equity	1,343	1,493	1,949	1,574	(5,016)	1,343
Noncontrolling interest	—	—	—	315	—	315
Total equity	1,343	1,493	1,949	1,889	(5,016)	1,658
Total liabilities and equity	<u>\$ 1,417</u>	<u>\$ 2,003</u>	<u>\$ 2,466</u>	<u>\$ 3,039</u>	<u>\$ (5,051)</u>	<u>\$ 3,874</u>

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

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	\$ 261	\$ 64	\$ —	\$ 668
Accounts receivable	—	—	107	62	—	169
Due to/from parent	4	—	—	—	—	4
Intercompany receivable	6	—	4	—	(10)	—
Inventories	—	—	316	64	—	380
Prepaid expenses and other current assets	27	1	49	4	(9)	72
Total current assets	40	341	737	194	(19)	1,293
Property, plant and equipment, net of accumulated depreciation	—	—	1,413	1,017	—	2,430
Investment in and advances from subsidiaries	1,228	1,601	172	1,440	(4,441)	—
Other long-term assets	—	1	231	45	—	277
Total assets	<u>\$ 1,268</u>	<u>\$ 1,943</u>	<u>\$ 2,553</u>	<u>\$ 2,696</u>	<u>\$ (4,460)</u>	<u>\$ 4,000</u>
LIABILITIES AND PARTNERS' CAPITAL						
Current liabilities:						
Accounts payable	\$ 1	\$ —	\$ 293	\$ 26	\$ —	\$ 320
Intercompany payables	—	—	—	10	(10)	—
Other current liabilities	6	7	74	97	(8)	176
Total current liabilities	7	7	367	133	(18)	496
Long-term liabilities:						
Long-term debt and finance lease obligations, net of current portion	—	496	42	629	—	1,167
Investment and advances from subsidiaries	—	—	106	—	(106)	—
Deferred income taxes	(24)	—	—	404	—	380
Other long-term liabilities	3	—	7	4	—	14
Total long-term liabilities	(21)	496	155	1,037	(106)	1,561
Commitments and contingencies						
Equity:						
Total CVR stockholders' equity	1,282	1,440	1,701	1,199	(4,336)	1,286
Noncontrolling interest	—	—	330	327	—	657
Total equity	1,282	1,440	2,031	1,526	(4,336)	1,943
Total liabilities and equity	<u>\$ 1,268</u>	<u>\$ 1,943</u>	<u>\$ 2,553</u>	<u>\$ 2,696</u>	<u>\$ (4,460)</u>	<u>\$ 4,000</u>

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

Condensed Consolidating Statement of Operations

(in millions)	Three Months Ended March 31, 2019					
	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Intercompany Eliminations	Consolidated
Net sales	\$ —	\$ —	\$ 1,397	\$ 92	\$ (3)	\$ 1,486
Operating costs and expenses:						
Cost of materials and other	—	—	1,080	24	(3)	1,101
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	—	—	91	35	—	126
Depreciation and amortization	—	—	48	17	—	65
Cost of sales	—	—	1,219	76	(3)	1,292
Selling, general and administrative expenses (exclusive of depreciation and amortization as reflected below)	5	—	18	7	—	30
Depreciation and amortization	—	—	2	—	—	2
Loss on asset disposals	—	—	2	—	—	2
Operating income (loss)	(5)	—	156	9	—	160
Other income (expense):						
Interest expense, net	(1)	(7)	(2)	(16)	—	(26)
Other income, net	—	—	3	—	—	3
Income (loss) from subsidiaries	121	144	(9)	(9)	(247)	—
Income (loss) before income taxes	115	137	148	(16)	(247)	137
Income tax expense (benefit)	14	—	—	21	—	35
Net income (loss)	101	137	148	(37)	(247)	102
Less: Net income attributable to noncontrolling interest	—	—	5	(4)	—	1
Net income (loss) attributable to CVR Energy stockholders	\$ 101	\$ 137	\$ 143	\$ (33)	\$ (247)	\$ 101

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

Condensed Consolidating Statement of Operations

(in millions)	Three Months Ended March 31, 2018					
	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Intercompany Eliminations	Consolidated
Net sales	\$ —	\$ —	\$ 1,458	\$ 80	\$ (1)	\$ 1,537
Operating costs and expenses:						
Cost of materials and other	—	—	1,158	23	(1)	1,180
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	—	—	91	39	—	130
Depreciation and amortization	—	—	48	16	—	64
Cost of sales	—	—	1,297	78	(1)	1,374
Selling, general and administrative expenses (exclusive of depreciation and amortization as reflected below)	3	—	15	6	—	24
Depreciation and amortization	—	—	3	—	—	3
Loss on asset disposals	—	—	—	—	—	—
Operating income (loss)	(3)	—	143	(4)	—	136
Other income (expense):						
Interest expense, net	—	(8)	(3)	(16)	—	(27)
Other income, net	—	—	1	1	—	2
Income (loss) from subsidiaries	62	144	(15)	(10)	(181)	—
Income (loss) before income taxes	59	136	126	(29)	(181)	111
Income tax expense (benefit)	(1)	—	—	19	—	18
Net income (loss)	60	136	126	(48)	(181)	93
Less: Net income attributable to noncontrolling interest	—	—	46	(13)	—	33
Net income (loss) attributable to CVR Energy stockholders	\$ 60	\$ 136	\$ 80	\$ (35)	\$ (181)	\$ 60

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

Condensed Consolidating Statement of Cash Flows

(in millions)	Three Months Ended March 31, 2019					
	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Intercompany Elimination	Consolidated
Net cash provided by (used in) operating activities	\$ 40	\$ 1	\$ 176	\$ 12	\$ (1)	\$ 228
Cash flows from investing activities:						
Capital expenditures	—	—	(25)	(4)	—	(29)
Turnaround expenditures	—	—	(13)	—	—	(13)
Investment in affiliates, net of return of investment	341	(28)	(137)	41	(217)	—
Other investing activities	—	—	—	—	—	—
Net cash provided by (used in) investing activities	341	(28)	(175)	37	(217)	(42)
Cash flows from financing activities:						
Dividends to CVR Energy stockholders	(75)	—	—	—	—	(75)
Acquisition of CVR Refining common units	(301)	—	—	—	—	(301)
Distributions to CVR Partners' noncontrolling interest holders	—	—	—	(9)	—	(9)
Distributions or intercompany advances to other CVR Energy subsidiaries	—	(7)	(206)	(5)	218	—
Other financing activities	—	—	(2)	—	—	(2)
Net cash provided by (used in) financing activities	(376)	(7)	(208)	(14)	218	(387)
Net increase (decrease) in cash and cash equivalents	5	(34)	(207)	35	—	(201)
Cash and cash equivalents, beginning of period	3	340	261	64	—	668
Cash and cash equivalents, end of period	\$ 8	\$ 306	\$ 54	\$ 99	\$ —	\$ 467

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

Condensed Consolidating Statement of Cash Flows

(in millions)	Three Months Ended March 31, 2018					
	Parent	Subsidiary Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Intercompany Elimination	Consolidated
Net cash provided by (used in) operating activities	\$ 12	\$ 2	\$ 8	\$ 5	\$ (1)	\$ 26
Cash flows from investing activities:						
Capital expenditures	(1)	—	(15)	(4)	—	(20)
Turnaround expenditures	—	—	(1)	—	—	(1)
Investment in affiliates, net of return of investment	36	25	(221)	(14)	174	—
Other investing activities	—	—	—	—	—	—
Net cash provided by (used in) investing activities	35	25	(237)	(18)	174	(21)
Cash flows from financing activities:						
CVR Energy shareholder dividends	(43)	—	—	—	—	(43)
Distributions to CVR Refining noncontrolling interest holders	—	—	(20)	—	—	(20)
Distributions to CVR Partners' noncontrolling interest holders	—	—	—	(3)	—	(3)
Distributions or intercompany advances to other CVR Energy subsidiaries	—	(92)	238	27	(173)	—
Other financing activities	—	—	(2)	1	—	(1)
Net cash provided by (used in) financing activities	(43)	(92)	216	25	(173)	(67)
Net increase (decrease) in cash and cash equivalents	4	(65)	(13)	12	—	(62)
Cash and cash equivalents, beginning of period	4	163	264	51	—	482
Cash and cash equivalents, end of period	\$ 8	\$ 98	\$ 251	\$ 63	\$ —	\$ 420

Item 2. 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 the unaudited condensed consolidated financial statements and related notes and with the statistical information and financial data appearing in this Report, as well as our Annual Report on Form 10-K for the year ended December 31, 2018 filed with the Securities and Exchange Commission ("SEC") on February 21, 2019 (the "2018 Form 10-K"). Results of operations and cash flows for the three months ended March 31, 2019 are not necessarily indicative of results to be attained for any other period. See important information regarding "Forward Looking Statements".

Company Overview

CVR Energy, Inc. ("CVR Energy," "CVR," "we," "us," "our" or the "Company") is a diversified holding company primarily engaged in the petroleum refining and nitrogen fertilizer manufacturing industries through our holdings in CVR Refining and CVR Partners. CVR Refining is a refiner that does not have crude oil exploration or production operations (an "independent petroleum refiner") and is a marketer of high value transportation fuels. CVR Partners produces nitrogen fertilizers in the form of ammonia and urea ammonium nitrate ("UAN"). Ammonia is a direct application fertilizer and is primarily used as a building block for other nitrogen products for industrial applications and finished fertilizer products. UAN is an aqueous solution of urea and ammonium nitrate. At March 31, 2019, we owned the general partner and approximately 34% of the outstanding common units representing limited partner interests in CVR Partners. As of March 31, 2019, Icahn Enterprises L.P. and its affiliates owned approximately 71% of our outstanding common stock.

On January 29, 2019, the Company purchased all issued and outstanding CVRR common units not already owned by the Company or its affiliates for a cash purchase price of \$10.50 per unit, or approximately \$301 million in the aggregate. The total purchase price 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. See Note 7 ("Long-Term Debt") for further information on the credit agreement. See Note 16, ("Guarantor Financial Information") for further discussion and the condensed consolidating financial statements presented as a result of this transaction.

We operate under two business segments: petroleum and nitrogen fertilizer, which are referred to in this document as our "petroleum business" and our "nitrogen fertilizer business," respectively.

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
Petroleum Segment:				
Completion of the Wynnewood turnaround safely, on time and under budget	ü	ü		ü
Completed the Wynnewood refinery’s BenFree repositioning project, which is now in service.	ü			ü
Nitrogen Fertilizer:				
Maintained high asset reliability during first quarter 2019	ü	ü		ü
Generated positive cash available for distribution despite the delay in the spring planting season due to wet weather		ü	ü	ü
Declared a first quarter 2019 cash distribution of 7 cents per unit				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.

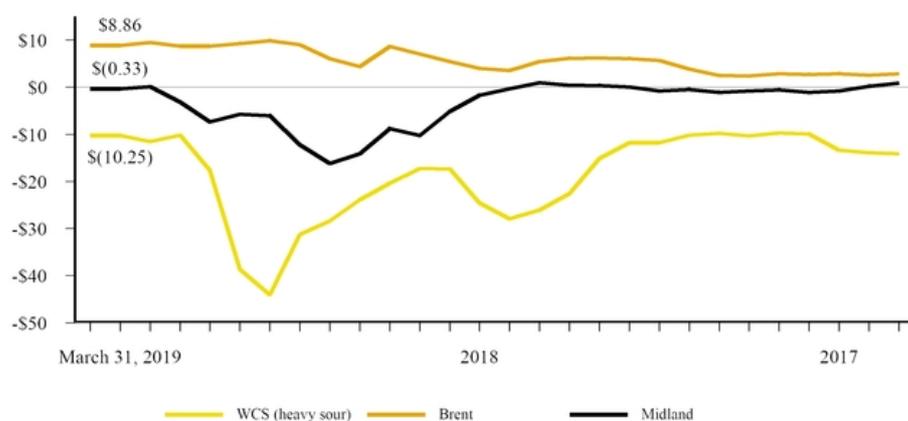
The prices of crude oil and other feedstocks and refined products are also affected by other factors, such as product pipeline capacity, system inventory local market conditions and the operating levels of competing refineries. Crude oil costs and the prices of refined products have historically been 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.

2019 Market Conditions

The tables below show relevant market indicators for the petroleum segment, on a per barrels basis, for the three months ended March 31, 2019 and for the years ended 2018, and 2017:

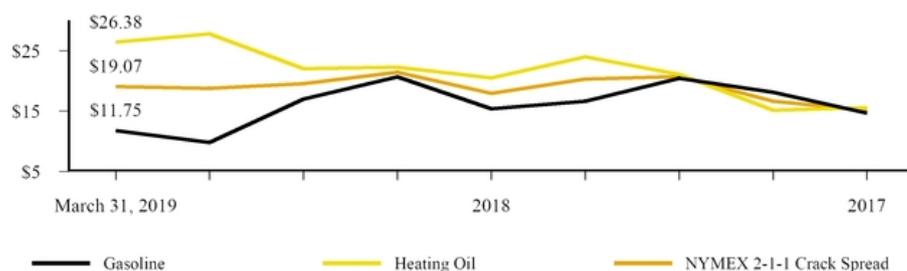
Crude Oil Differentials against WTI (1)



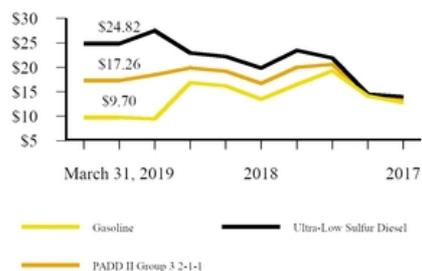
The table below shows the change over time in NYMEX - WTI, as reflected in the table above, is illustrated below.

(in \$/bbl)	Average 2017	At December 31, 2017	Average 2018	At December 31, 2018	Average 2019	At March 31, 2019
WTI	\$ 50.95	\$ 57.95	\$ 64.77	\$ 48.98	\$ 54.90	\$ 58.17

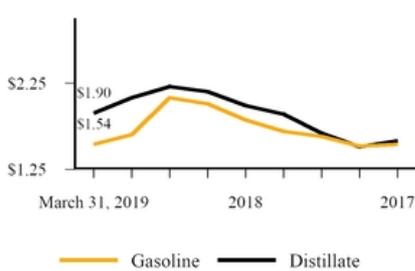
NYMEX Crack Spreads (1)



PADD II Group 3 Product Crack Spread (1)



Gasoline and Distillate Product Pricing (1)



(1) Information used within these 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.

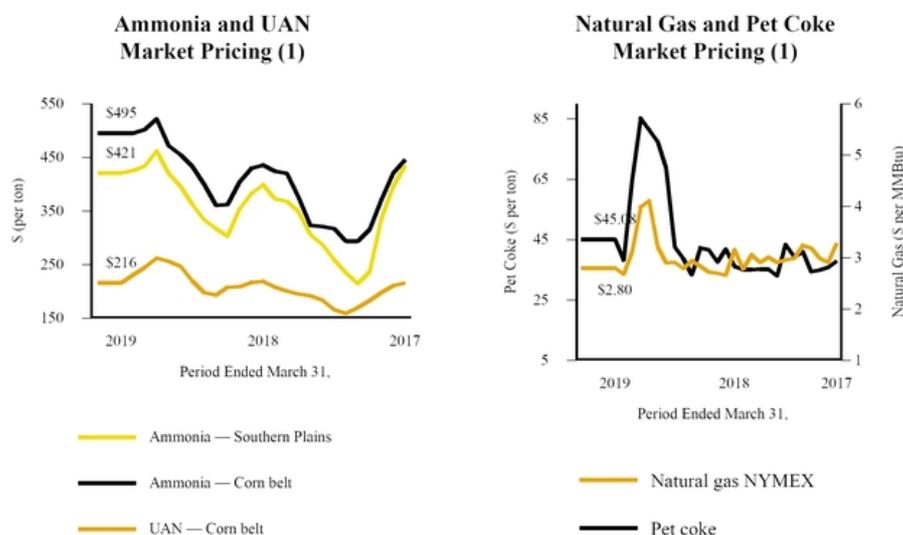
Nitrogen fertilizer prices are also affected by local factors, including local market conditions and the operating levels of competing facilities. An expansion or upgrade of competitors' facilities, new facility development, political and economic

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.

2019 Market Conditions

The table below shows relevant market indicators for the nitrogen fertilizer segment for the three months ended March 31, 2019 and for the years ended 2018, and 2017:



(1) Information used within these charts was obtained from MarketView.

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.

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. See Note 3 (“Recent Accounting Pronouncements and Accounting Changes”) 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.

The following are non-GAAP measures that continue to be presented for the period ended March 31, 2019:

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 adjusted to exclude the impact of current period market price and volume fluctuations on crude oil and refined product inventories recognized in prior periods, 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.

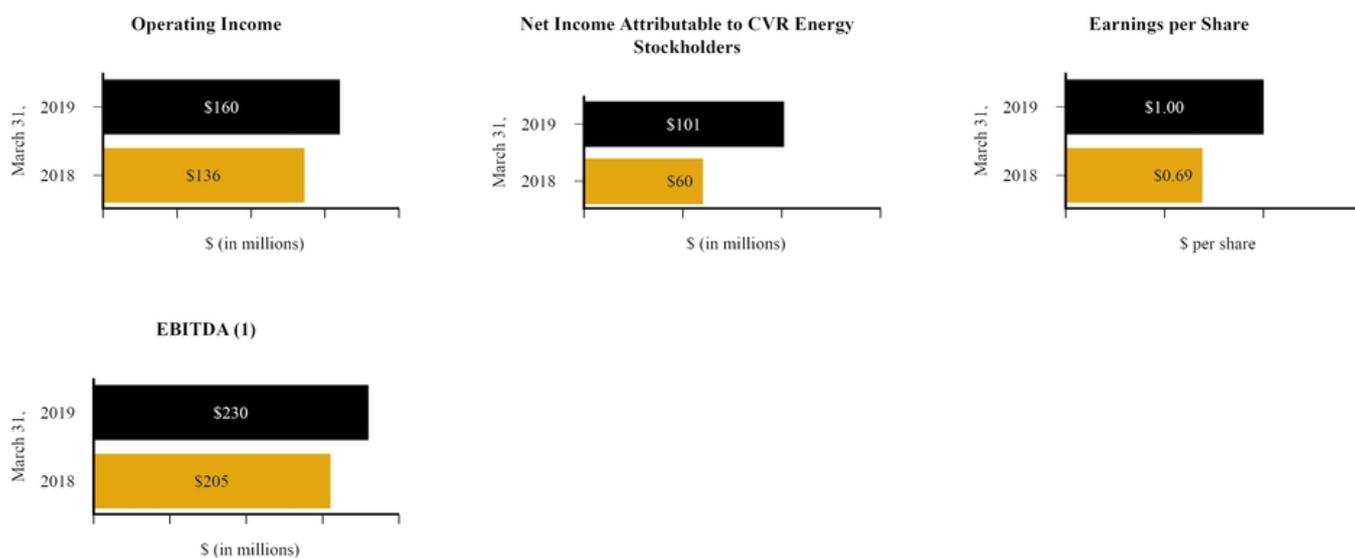
We present these measures because we believe they may help investors, analysts, lenders and ratings agencies analyze our results of operations and liquidity in conjunction with our U.S. GAAP results, including but not limited to our operating performance as compared to other publicly-traded companies 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. Due to rounding, numbers presented within this section may not add or equal to numbers or totals presented elsewhere within this document.

Results of Operations

Consolidated

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 (2019 1st Quarter Versus 2018 1st Quarter)



(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

	Three Months Ended March 31,	
	2019	2018
\$	156	\$ 143
	9	(3)
	(5)	(4)
\$	160	\$ 136

EBITDA by Segment (1)

(in millions)	Three Months Ended March 31,	
	2019	2018
Petroleum	\$ 209	\$ 192
Nitrogen Fertilizer	26	13
Other	(5)	—
Consolidated	\$ 230	\$ 205

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

Three Months Ended March 31, 2019 Compared to the Three Months Ended March 31, 2018 (Consolidated)

Overview - For the three months ended March 31, 2019, the petroleum refining margin was \$317 million, or \$16.55 per throughput barrel, as compared to \$300 million or \$17.57 per throughput barrel, for the three months ended March 31, 2018, primarily due to increased refined product sales volumes, partially offset by increased RINS expense. Overall sales volumes increased approximately 12% for the three months ended March 31, 2019 as compared to the three months ended March 31, 2018, primarily due to improved throughput at our Coffeyville refinery.

Income Tax Expense. Income tax expense for the three months ended March 31, 2019 was \$35 million, or 25.5% of income before income taxes, as compared to income tax expense for the three months ended March 31, 2018 of \$18 million, or 16% of income before income taxes. The fluctuation in income tax expense was due primarily to the decrease in noncontrolling interest from the three months ended March 31, 2018 to the three months ended March 31, 2019. The effective income tax rate varies from the federal statutory income tax rate of 21% primarily as a result of state income tax expense.

Petroleum Segment
Refining Throughput and Production Data by Refinery
Throughput Data

(in bpd)	Three Months Ended March 31,	
	2019	2018
Coffeyville		
Regional crude	41,591	29,698
WTI	67,016	50,829
Midland WTI	12,702	—
Condensate	5,293	17,714
Heavy Canadian	7,563	490
Other feedstocks and blendstocks	9,293	6,134
Wynnewood		
Regional crude	44,363	48,520
WTI	—	6,947
Midland WTI	12,507	19,153
Condensate	7,754	4,349
Heavy Canadian	—	—
Other feedstocks and blendstocks	4,725	5,764
Total throughput	212,807	189,598

Production Data

(in bpd)

Coffeyville

	Three Months Ended March 31,	
	2019	2018
Gasoline	73,856	49,222
Distillate	59,529	44,245
Other liquid products	6,473	8,588
Solids	4,970	4,244

Wynnewood

Gasoline	34,312	43,595
Distillate	27,356	34,620
Other liquid products	6,123	4,510
Solids	28	54

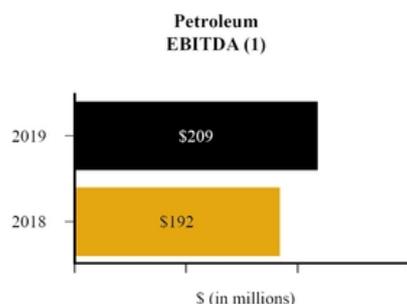
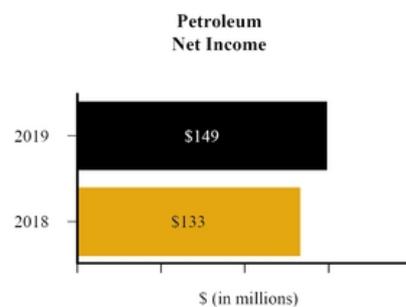
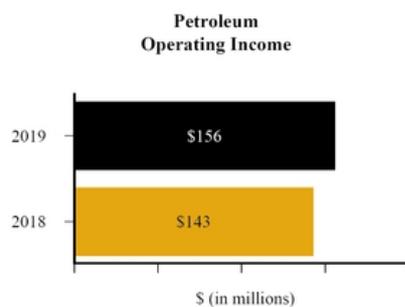
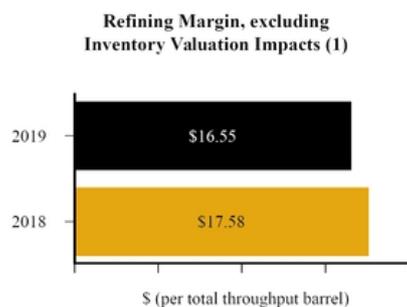
Total production

	212,647	189,078
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Liquid volume yield (as % of total throughput)

97.6% 97.5%

Financial Highlights (2019 1st Quarter Versus 2018 1st Quarter)



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

Petroleum Operating Results

(in millions)	Three Months Ended March 31,	
	2019	2018
Net sales	\$ 1,397	\$ 1,458
Cost of materials and other	1,080	1,158
Direct operating expenses	91	92
Selling, general and administrative expenses	20	17
Depreciation and amortization	49	48
Loss on asset disposals	1	—
Petroleum Operating income	\$ 156	\$ 143
Refining margin	\$ 317	\$ 300
Petroleum EBITDA (1)	\$ 209	\$ 192
Key Operating Metrics per Total Throughput Barrel		
Refining Margin (1)	\$ 16.55	\$ 17.58
Refining Margin, excluding Inventory Valuation Impacts (1)	\$ 14.88	\$ 16.41
Direct Operating Expenses (1)	\$ 4.75	\$ 5.39

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

Three Months Ended March 31, 2019 Compared to the Three Months Ended March 31, 2018 (Petroleum Business)

Overview - For the three months ended March 31, 2019, petroleum segment operating income was \$13 million higher than the first quarter of 2018 driven primarily by a higher refining margin and partially offset by higher selling, general and administrative expenses in the 2019 quarter. Increased share-based compensation costs drove higher selling, general and administrative expenses primarily due to share price increases during the first quarter of 2019 compared to a decline in price in the first quarter of 2018. Direct operating expenses were consistent across the 2019 and 2018 quarters, however, due to higher total throughput in 2019 compared to 2018, direct operating expenses on a total throughput barrel basis decreased from \$5.39 per barrel to \$4.75 per barrel.

Refining Margin - Refining margin was \$317 million, or \$16.55 per throughput barrel, as compared to \$300 million, or \$17.58 per throughput barrel for the three months ended March 31, 2018, primarily due to increased refined product sales volumes, partially offset by increased RINS expense. Overall sales volumes increased approximately 12% for the three months ended March 31, 2019, as compared to the three months ended March 31, 2018, primarily due to improved throughput at our Coffeyville refinery. The NYMEX 2-1-1 crack spread increased by \$1.16 per barrel, primarily due to an improved distillate crack of \$5.92 offset by a decrease in the gasoline crack of \$3.60. The Group 3 2-1-1 also improved in the three months ended March 31, 2019 by \$0.59 compared to the same period last year, again driven largely by an increase in the distillate crack of \$4.97 offset by a decrease in the gasoline crack of \$3.78. Midland WTI and WCS crude supply availability and take-away constraints tightened the discounts to WTI by \$1.20 and \$10.63 per barrel, respectively. On a flat price basis, crude oil and refined product pricing increased during the first quarter of 2019 resulting in a favorable impact on refining margin during the period of \$32 million as compared to \$20 million for similar impacts in the 2018 period. Market conditions also impacted derivative gains, primarily related to the sale of WCS barrels at Cushing in the first quarter 2019 along with certain crack spread swaps held during the first quarter 2018, resulting in net gains of \$16 million and \$59 million in the 2019 and 2018 periods. Also impacting refining margin in the first quarter of 2019 compared to the first quarter of 2018 was \$13 million in RINS expense, compared to a benefit of \$23 million recognized in the 2018 quarter.

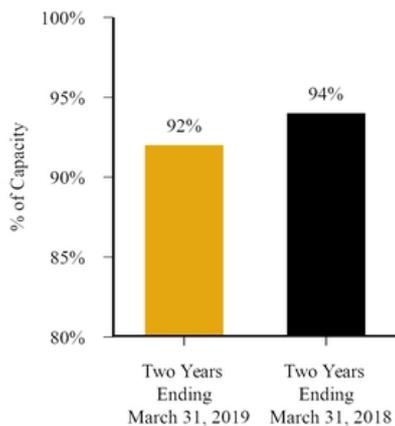
Nitrogen Fertilizer Segment

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 CVR Partners’ facilities. Utilization is calculated as actual tons produced divided by capacity adjusted for planned turnarounds.

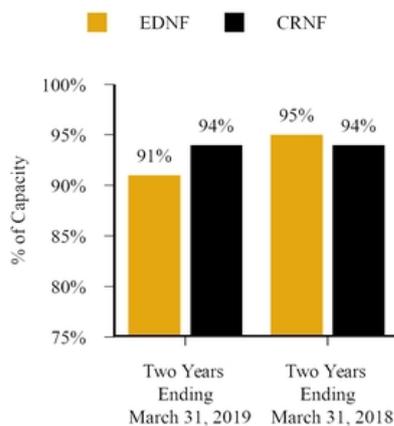
We present our utilization on a two-year rolling average to take into account the impact of our planned and unplanned outages on any specific period. The two-year rolling average is a more useful presentation of the long-term utilization performance of Nitrogen Fertilizer segment’s plants.

We 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

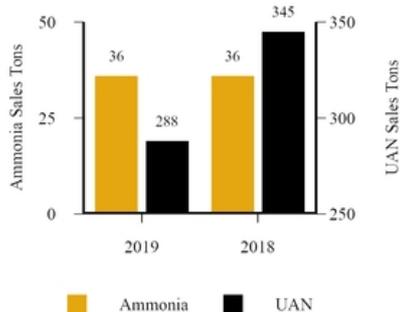


Ammonia Utilization - by Facility

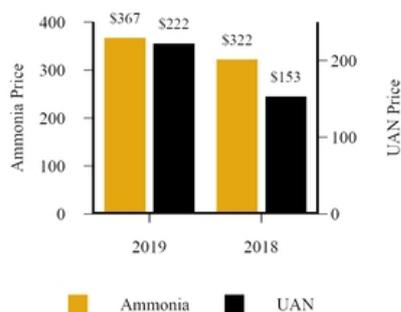


Sales and Pricing per Ton - Two of the Nitrogen Fertilizer Segment's key operating metrics are total sales for ammonia and UAN along with the product pricing per ton realized at the gate. Product pricing at gate represents net sales less freight revenue divided by product sales volume in tons and is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

Sales (thousand tons)



Product Pricing at Gate (\$ per ton)



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.

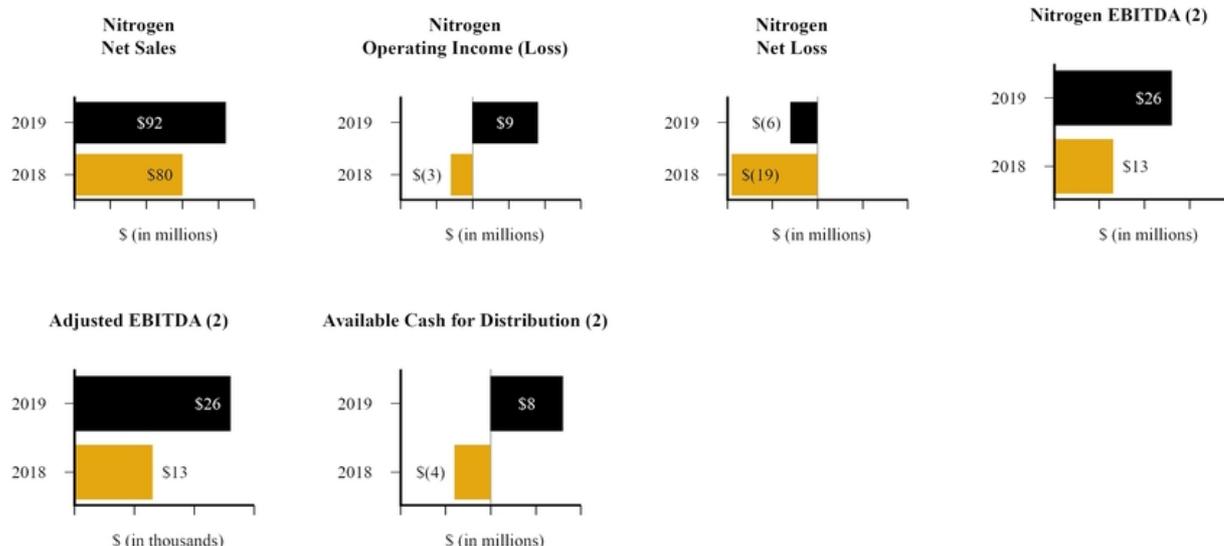
(in thousands of tons)	Three Months Ended March 31,	
	2019	2018
Ammonia (gross produced)	179	199
Ammonia (net available for sale)	41	59
UAN	335	339

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:	Three Months Ended March 31,	
	2019	2018
Petroleum coke used in production (thousand tons)	132	118
Petroleum coke (dollars per ton)	\$ 38	\$ 18
Natural gas used in production (thousands of MMBtu)(1)	1,440	1,850
Natural gas used in production (dollars per MMBtu)(1)	\$ 3.83	\$ 3.24
Natural gas cost of materials and other (thousands of MMBtu)(1)	1,008	1,258
Natural gas cost of materials and other (dollars per MMBtu)(1)	\$ 3.87	\$ 3.48
Reconciliation to net sales (dollars in millions):		
Sales net at gate	\$ 82	\$ 69
Freight in revenue	8	9
Other revenue	2	2
Total net sales	\$ 92	\$ 80

(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 (2019 1st Quarter Versus 2018 1st Quarter)



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

Three Months Ended March 31, 2019 Compared to the Three Months Ended March 31, 2018 (Nitrogen Fertilizer Business)

Net Sales. - Net sales increased by \$12 million to \$92 million for the three months ended March 31, 2019 compared to three months ended March 31, 2018. This increase was primarily due to favorable pricing conditions which contributed \$22 million in higher revenues. These price increases were offset by \$10 million in volume reductions in 2019 as compared to three months ended March 31, 2018.

The following table demonstrates the impact of changes in sales volumes and pricing for the primary components of net sales for the three months ended March 31, 2019 as compared to the three months ended March 31, 2018:

(in millions)	Price Variance	Volume Variance
UAN	\$ 20	\$ (10)
Ammonia	2	—

The increase in UAN and ammonia sales pricing for the three months ended March 31, 2019 compared to the three months ended March 31, 2018 was primarily attributable to a shift in demand from fourth quarter 2018 to first quarter 2019. Due to heavy rain in the fall season, customers purchased lower quantities of ammonia for application in the fourth quarter of 2018. As a result, customer demand for ammonia increased in the first quarter of 2019 as they attempted to make up for the missed application. In addition, the aforementioned ammonia application coupled with freezing temperatures and flooding throughout

the Eastern Cornbelt and Southern Plains shifted the demand for UAN, and sales volumes decreased for the three months ended March 31, 2019 compared to the three months ended March 31, 2018.

Cost of Materials and Other (exclusive of depreciation and amortization). Cost of materials and other (exclusive of depreciation and amortization) for the three months ended March 31, 2019 was \$24 million, compared to the three months ended March 31, 2018 of \$22 million. The \$2 million increase was comprised of a \$3 million increase in pet coke costs at our Coffeyville plant, offset by a \$1 million decrease in distribution costs to off-site inventory locations.

Direct Operating Expenses (exclusive of depreciation and amortization). Direct operating expenses (exclusive of depreciation and amortization) for the three months ended March 31, 2019 were \$35 million as compared to the three months ended March 31, 2018 of \$39 million. The \$4 million decrease was primarily due to a build of UAN and ammonia inventories in the first quarter of 2019 compared to the first quarter in 2018.

Non-GAAP Reconciliations

Reconciliation of Net Income attributable to CVR Energy stockholders to EBITDA

(in millions)	Three Months Ended March 31,	
	2019	2018
Net income attributable to CVR Energy stockholders	\$ 102	\$ 93
Add:		
Interest expense, net	26	27
Income tax expense	35	18
Depreciation and amortization	67	67
EBITDA	<u>\$ 230</u>	<u>\$ 205</u>

Reconciliation of Petroleum Segment Net Income to Petroleum EBITDA

(in millions)	Three Months Ended March 31,	
	2019	2018
Petroleum net income	\$ 149	\$ 133
Add:		
Interest expense, net	11	11
Depreciation and amortization	49	48
Petroleum EBITDA	<u>\$ 209</u>	<u>\$ 192</u>

Reconciliation of gross profit to Refining Margin, Refining Margin adjusted for the inventory valuation impact (in millions and on per total throughput barrel basis) and Direct operating expenses per total throughput barrel.

	Three Months Ended March 31,	
	2019	2018
(in millions)		
Net sales	\$ 1,397	\$ 1,458
Cost of materials and other	1,080	1,158
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	91	92
Depreciation and amortization	49	48
Gross profit	177	160
Add:		
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	91	92
Depreciation and amortization	49	48
Refining margin	317	300
Inventory valuation impact, (favorable) unfavorable (1)	(32)	(20)
Refining margin adjusted for inventory valuation impact	\$ 285	\$ 280

(1) FIFO is the petroleum business' basis for determining inventory value under GAAP. Changes in crude oil prices can cause fluctuations in the inventory valuation of crude oil, work in process and finished goods, thereby resulting in a favorable inventory valuation impact when crude oil prices increase and an unfavorable inventory valuation impact when crude oil prices decrease. The inventory valuation impact is calculated based upon inventory values at the beginning of the accounting period and at the end of the accounting period. In order to derive the inventory valuation impact per total throughput barrel, we utilize the total dollar figures for the inventory valuation impact and divide by the number of total throughput barrels for the period.

	Three Months Ended March 31,	
	2019	2018
Total throughput barrels per day	212,806	189,598
Days in the period	90	90
Total throughput barrels	19,152,540	17,063,820

	Three Months Ended March 31,	
	2019	2018
(in millions, except for per throughput barrel data)		
Refining margin	\$ 317	\$ 300
Divided by: total throughput barrels	19	17
Refining margin per total throughput barrel	\$ 16.55	\$ 17.58

	Three Months Ended March 31,	
	2019	2018
(in millions, except for per throughput barrel data)		
Refining margin adjusted for inventory valuation impact	\$ 285	\$ 280
Divided by: total throughput barrels	19	17
Refining margin adjusted for inventory valuation impact per total throughput barrel	\$ 14.88	\$ 16.41

(in millions, except for per throughput barrel data)

Direct operating expenses (exclusive of depreciation and amortization)

Divided by: total throughput barrels

Direct operating expenses per total throughput barrel

Three Months Ended March 31,			
	2019		2018
\$	91	\$	92
	19		17
\$	4.75	\$	5.39

Reconciliation of Nitrogen Net Loss to Nitrogen Fertilizer EBITDA

(in millions)

Nitrogen fertilizer net loss

Add:

Interest expense, net

Depreciation and amortization

Nitrogen Fertilizer EBITDA

Three Months Ended March 31,			
	2019		2018
\$	(6)	\$	(19)
	16		16
	16		16
\$	26	\$	13

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.

There have been no material changes in liquidity from our 2018 Form 10-K. The Company, and its subsidiaries, were in compliance with all covenants under their respective debt instruments as of March 31, 2019, as applicable.

Cash Balances and Other Liquidity

As of March 31, 2019, we had consolidated cash and cash equivalents of \$467 million, \$393 million available under CVR Refining’s Amended ABL Credit Facility and \$50 million available under CVR Partners’ AB Credit Facility.

(in millions)

	March 31, 2019	December 31, 2018
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	(17)	(18)
Total CVR Partners Debt	<u>\$ 630</u>	<u>\$ 629</u>
CVR Refining:		
6.50% Senior Notes due November 2022	\$ 500	\$ 500
Capital lease obligations	69	44
Unamortized debt issuance cost	(3)	(3)
Current portion of capital lease obligations	(5)	(3)
Total CVR Refining Debt	<u>561</u>	<u>538</u>
Total Long-Term Debt	<u><u>\$ 1,191</u></u>	<u><u>\$ 1,167</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, as administrative agent and collateral agent. Such agreement, as amended by the Amendment, the “Amended and Restated ABL Credit Facility”), 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. We were in compliance with all applicable covenants as of March 31, 2019.

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 March 31, 2019.

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 three months ended March 31, 2019 along with our estimated expenditures for 2019, by segment, are as follows:

(in millions)	Three Months Ended March 31, 2019 Actual			2019 Estimate (1)					
				Maintenance		Growth		Total	
	Maintenance	Growth	Total	Low	High	Low	High	Low	High
Petroleum	\$ 23	\$ 3	\$ 26	\$ 125	\$ 140	\$ 55	\$ 60	\$ 180	\$ 200
Nitrogen Fertilizer	3	—	3	18	20	2	5	20	25
Other	—	—	—	10	15	—	—	10	15
Total	\$ 26	\$ 3	\$ 29	\$ 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.

We capitalized \$20 million and \$1 million of turnaround expenditures incurred during the three months ended March 31, 2019 and 2018.

Dividends to CVR Energy Stockholders

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 was paid on March 11, 2019.

For the first quarter of 2019, the Company, upon approval by the Company's board of directors on April 24, 2019, declared a cash dividend of \$0.75 per share, or \$75 million, payable on May 13, 2019 to shareholders of record as of May 6, 2019. Dividends, if any, including the payment, amount and timing thereof, are subject to change at the discretion of the Board of Directors.

Distributions to CVR Partners' Unitholders

For the fourth quarter of 2018, CVR Partners declared a distribution of \$0.12 per common unit, or \$13.9 million, which was paid on March 11, 2019. Of this amount, we received approximately \$5 million, with the remaining amount payable to public unitholders.

For the first quarter of 2019, CVR Partners, upon approval by CVR GP's board of directors on April 24, 2019, declared a distribution of \$0.07 per common unit, or \$8 million, payable on May 13, 2019 to unitholders of record as of May 6, 2019. Of this amount, we will receive approximately \$3 million, with the remaining amount payable to public unitholders. Distributions, if any, including the payment, amount and timing thereof, are subject to change at the discretion of the Board of Directors of CVR Partners' general partner.

Cash Flows

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

(In millions)	Three Months Ended March 31,		
	2019	2018	Change
Net cash provided by (used in):			
Operating activities	\$ 228	\$ 26	\$ 202
Investing activities	(42)	(21)	(21)
Financing activities	(387)	(67)	(320)
Net decrease in cash and cash equivalents	\$ (201)	\$ (62)	\$ (139)

Operating Activities

The change in operating activities for the three months ended March 31, 2019 as compared to the three months ended March 31, 2018, is primarily due to changes in working capital. During the first quarter of 2019, our Nitrogen Fertilizer Segment's deferred revenue increased due to higher amounts of customer advances received this quarter in advance of the spring application period compared to the same period in 2018. Additionally, the 2018 quarter was impacted by the reduction of our Petroleum Segment's renewable volume obligation.

Investing Activities

The change in net cash used in investing activities for the three months ended March 31, 2019 compared to the three months ended March 31, 2018, was primarily due to increased capital expenditures in 2019.

Financing Activities

The change in net cash used in financing activities for the three months ended March 31, 2019 compared to the three months ended March 31, 2018 was due to \$301 million in funds used to acquire the remaining CVR Refining common units not otherwise owned by us along with increased CVR Energy dividends and CVR Partners distributions paid in 2019 compared to 2018. These increases were offset by a \$20 million distribution paid to CVR Refining public unitholders in the first quarter of 2018 with no corresponding amount paid in 2019.

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.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

There have been no material changes to our market risks as of and for the three months ended March 31, 2019 as compared to the risks discussed in Part II, Item 7A of our 2018 Form 10-K.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of March 31, 2019, we have evaluated, under the direction of our Chief Executive Officer, Chief Financial Officer and Chief Accounting Officer, the effectiveness of our disclosure controls and procedures, as defined in Exchange Act Rule 13a-15(e). Based upon and as of the date of that evaluation, our Chief Executive Officer, Chief Financial Officer and Chief Accounting Officer, concluded that our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Security and Exchange Commission's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer, our Chief Financial Officer and our Chief Accounting Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting required by Rule 13a-15 of the Exchange Act that occurred during the fiscal quarter ended March 31, 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

See Note 12 ("Commitments and Contingencies") to Part I, Item 1 of this Report, which is incorporated by reference into this Part II, Item 1, for a description of certain litigation, legal and administrative proceedings and environmental matters.

Item 1A. Risk Factors

There have been no material changes from the risk factors previously disclosed in the "Risk Factors" section in our 2018 Form 10-K.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit Number	Exhibit Description
4.1**	First Supplemental Indenture, dated as of January 29, 2019, among CVR Energy Inc., CVR Refining LLC, Coffeyville Finance Inc. the guarantors named therein and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.1 to the Company's Form 8-K filed January 29, 2019
10.1*	CVR Performance-Based Bonus Plan, approved March 19, 2019
10.2*	CVR Partners, LP Performance-Based Bonus Plan, approved March 19, 2019
10.3*	CVR Refining, LP Performance-Based Bonus Plan, approved March 19, 2019
10.4**	Purchase Agreement, by and among CVR Energy, Inc., American Entertainment Properties Corp. and Icahn Enterprises Holdings L.P. (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed January 17, 2019.
18.1*	Preferability Letter from Grant Thornton to CVR Energy Inc., dated April 25, 2019
31.1*	Rule 13a-14(a)/15(d)-14(a) Certification of President and Chief Executive Officer.
31.2*	Rule 13a-14(a)/15(d)-14(a) Certification of Executive Vice President and Chief Financial Officer.
31.3*	Rule 13a-14(a)/15(d)-14(a) Certification of Chief Accounting Officer and Corporate Controller.
32.1†	Section 1350 Certification of President and Chief Executive Officer, Executive Vice President and Chief Financial Officer and Chief Accounting Officer and Corporate Controller.
101*	The following financial information for CVR Energy, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2019 formatted in XBRL ("Extensible Business Reporting Language") includes: (i) Condensed Consolidated Balance Sheets (unaudited), (ii) Condensed Consolidated Statements of Operations (unaudited), (iii) Condensed Consolidated Statements of Comprehensive Income (unaudited), (iv) Condensed Consolidated Statement of Changes in Equity (unaudited), (v) Condensed Consolidated Statements of Cash Flows (unaudited) and (vi) the Notes to Condensed Consolidated Financial Statements (unaudited), tagged in detail.

* Filed herewith.

** Previously filed

† Furnished herewith.

PLEASE NOTE: Pursuant to the rules and regulations of the SEC, we may file or incorporate by reference agreements as exhibits to the reports that we file with or furnish to the SEC. The agreements are filed to provide investors with information regarding their respective terms. The agreements are not intended to provide any other factual information about the Company, its business or operations. In particular, the assertions embodied in any representations, warranties and covenants contained in the agreements may be subject to qualifications with respect to knowledge and materiality different from those applicable to investors and may be qualified by information in confidential disclosure schedules not included with the exhibits. These disclosure schedules may contain information that modifies, qualifies and creates exceptions to the representations, warranties and covenants set forth in the agreements. Moreover, certain representations, warranties and covenants in the agreements may have been used for the purpose of allocating risk between the parties, rather than establishing matters as facts. In addition, information concerning the subject matter of the representations, warranties and covenants may have changed after the date of the respective agreement, which subsequent information may or may not be fully reflected in the Company's public disclosures. Accordingly, investors should not rely on the representations, warranties and covenants in the agreements as characterizations of the actual state of facts about the Company, its business or operations on the date hereof.

CVR Energy, Inc.

Performance-Based Bonus Plan

Philosophy / Background

CVR Energy, Inc. (the “Company”) is committed to wages and benefits that are competitive with a market-based, pay-for-performance compensation philosophy, providing such base pay, bonus and long-term incentive awards in line with those of the refining and fertilizer industries. This Performance-Based Bonus Plan (the “Plan”) is intended to reward high performance employees, and to retain these employees in critical roles, through the issuance of bonus awards (each, a “Bonus”).

Administration

The Plan is maintained and administered by, or under the direction of, the Compensation Committee (the “Compensation Committee”) of the board of directors (the “Board”) of the Company with respect to employees of the Company and its subsidiaries, excluding CVR Refining, LP (“CVRRL”), CVR Partners, LP (“UAN”), their respective general partners and their respective subsidiaries (references to “employees” within this Plan are references to all employees of the foregoing entities).

The Compensation Committee shall annually approve all salaries, targets and bonus metrics for employees in Grade E14 and above, and shall annually approve a total bonus pool for employees in Grade E13 and below. The Compensation Committee delegates to the Chief Executive Officer the authority to approve payouts from such total bonus pool to employees in Grade E13 and below, in his sole discretion. The Chief Executive Officer shall also be responsible for assigning salaries, bonus targets, and Grade levels to employees in Grade E13 and below.

In the event of a claim or dispute brought forth by any employee with a Grade level of E11 or below, the decision of the Chief Executive as to the facts in the case and the meaning and intent of any provision of the Plan, or its application, shall be final, binding, and conclusive. In the event of a claim or dispute brought forth by any employee with a Grade level of E12 or above, the decision of the Compensation Committee as to the facts in the case and the meaning and intent of any provision of the Plan, or its application, shall be final, binding, and conclusive.

The Plan described herein does not create a contractual obligation on the part of the Company. The Company expressly reserves the right to modify, discontinue, or otherwise change the Plan outlined in this document at the sole and absolute discretion of the Company without advance notice.

Introduction

The purpose of the Plan and any Bonus to be paid hereunder is to enhance the Company’s ability to attract, motivate, reward and retain employees, and to strengthen their commitment to the success of the Company.

Eligibility and Administration

Bonuses are made based on the applicable calendar year during which the employees performed the services and are generally paid (to the extent payable) after the financials have been audited and within 90 days of the end of the calendar year (the “Performance Period” or “Period”).

Generally, only exempt, non-exempt and non-union hourly employees are eligible to receive a Bonus, provided that, to receive a Bonus, an employee must: (i) be actively employed with the Company for at least 180 days during the calendar year; (ii) consistently perform at or above expectations for their role; (iii) be actively employed on the date of payout and not on a performance improvement plan or in corrective or disciplinary action status as a result of poor performance during the Performance Period. Employees hired prior to October 1 during the Performance Period will be eligible to receive a Bonus provided the above requirements (ii) and (iii) are met.

Subject to annual review, Bonuses are computed in accordance with each eligible employee’s Grade (as shown in Appendix A), prorated for time in an eligible position, as well as a performance multiplier of zero to 150 percent, based on performance against the achievement of the allocated Company and individual performance measures described herein. Appendices A-E present: the overall compensation structure (Appendix A), example calculations (Appendices B, C), eligibility (Appendix D) and bonus payout measures (Appendix E). The Individual Performance Multiplier component of a Bonus, if any, is entirely discretionary.

In addition, if the Adjusted EBITDA Threshold established for the Company for a given Performance Period is not reached, no Bonus will be paid for the Period, subject to Compensation Committee discretion. The Compensation Committee may, in its sole and absolute discretion, waive the adjusted EBITDA threshold requirement, increase, decrease, or otherwise adjust performance measures, targets, and payout ranges used hereunder, as a result of extraordinary or non-recurring events, changes in applicable accounting rules or principles, changes in the Company’s methods of accounting, changes in applicable law, changes due to consolidations, growth capital spend programs, acquisitions, or reorganizations affecting the Company and its subsidiaries and affiliates, or other similar changes in the Company’s business.

Company Performance: Environmental Health & Safety (EH&S) Measures – 25%

EH&S measures are as follows (see appendix F for definitions):

- Personal Safety – Total Recordable Injury Rate (TRIR);
- Process Safety – Process Safety Tier 1 Events Incident Rate (PSIR); and
- Environmental Events (EE) - Number of “numerical” releases, spills, permit exceedances and violations.

Company Performance: Financial Measures – 75%

Financial measures are objectives related to the following (see appendix F for definitions):

- Reliability;
- Equipment Utilization;
- Operating Expense; and
- Return on Capital Employed.

Spot Bonus

Introduction

Employees making an extraordinary contribution to the furtherance of Company financial performance or advances in Company culture may be nominated by their manager or executive sponsor for a Bonus on a spot basis (a “Spot Bonus”), subject to approval by the Chief Executive. Spot Bonuses will be limited to employees in salary grades E13 and below and a maximum value of five thousand dollars (\$5,000).

Terms and Conditions of Spot Bonus

Except as specifically set forth herein, the foregoing provisions of the Plan will likewise apply to a Spot Bonus. For the avoidance of doubt, these provisions relate to, among others, forfeiture and/or recoupment, amendment or termination, tax withholding, data protection and consent and governing law.

General Provisions

See Appendix F for definitions relating to the Plan.

Participation in the Plan is subject to (i) each individual employee’s compliance with the Company’s mission and values, its code of ethics and its policies and procedures, including, without limitation, the Corporate Policies and Procedures and employee handbook (collectively, “Company Policies”), and (ii) the Clawback and Recoupment Policy attached as Appendix G.

Each employee that is eligible and receives a Bonus or Spot Bonus will be liable for any and all federal, state, provincial, local or foreign taxes, pension plan contributions, employment insurance premiums, social insurance contributions, amounts payable to a governmental and/or regulatory body in the employee’s country and other levies of any kind required by applicable laws to be deducted or withheld with respect to any such award (collectively, the “Withholding Taxes”). The Company will have the right to deduct and withhold all required Withholding Taxes from any payment or other consideration deliverable to an employee pursuant to any such payment. All awards under the Plan are intended to be exempt from Section 409A of the Internal Revenue Code of 1986, as amended, and shall be construed and interpreted in accordance with such intent.

Participation in the Plan does not confer upon any employee any right to continue in the employ of the Company or its subsidiaries, nor interfere in any way with the right of the Company and its subsidiaries to terminate any employee's employment at any time. The Company and its subsidiaries are under no obligation to continue the Plan in future years.

The Compensation Committee may at any time, or from time to time, in its sole and absolute discretion, (a) amend, alter or modify the provisions of this Plan, (b) terminate this Plan, or (c) terminate the participation of an employee or group of employees in this Plan; provided, however, that in the event of the termination of the Plan or a termination of participation, the Compensation Committee, in its sole and absolute discretion, may determine that a prorated award is payable to employees who were participants in this Plan under such terms and conditions as established by the Compensation Committee.

Notwithstanding anything herein to the contrary, whether or not any payment or award is authorized, earned or paid under the Plan will be determined by the Compensation Committee in its sole and absolute discretion, and no such payment or award shall be earned, nor shall any right to any such payment or award exist or accrue, unless, among other factors, such payment or award has been authorized by the Compensation Committee in its sole and absolute discretion, and actually paid to the employee. In addition, whether or not any payment or award is authorized, earned or paid pursuant to the Plan is without regard to whether any of the individual performance metrics, financial performance targets and/or goals, or any other benchmarks, targets, personal goals or criteria set forth in the Plan are met, not met, exceeded or not exceeded.

No employee, beneficiary or other person shall have any right, title or interest in any amount awarded under the Plan prior to the payment of such award to him or her. An employee's rights to a payment under the Plan are no greater than those of unsecured general creditors of the Company or its subsidiaries.

By participating in the Plan, each employee consents to the holding and processing of personal information provided by such employee to the employer, any affiliate of the employer, trustee or third party service provider, for all purposes relating to the operation of the Plan. Consents include, but are not limited to: (i) administering and maintaining employee records; (ii) providing information to the employer, its affiliates, trustees of any employee benefit trust, registrars, brokers or third party administrators of the Plan; (iii) providing information to future purchasers or merger partners of the employer or any of its affiliates, or the business in which the employee works; and (iv) to the extent not prohibited by applicable law, transferring information about the employee to any country or territory that may not provide the same protection for the information as the employee's home country.

The Plan is governed by the laws of the State of New York and as such will be construed under and in accordance with the laws of the State of New York without regard to conflicts of law.

Appendix A Compensation Structure: Base Pay & Incentive Plans

[Table Redacted]

Individual Performance Measures

Supervisor's assessment of employee's performance will be based on the following categories:

- Interpersonal effectiveness
- Business conduct
- Professional and technical development
- Leadership
- Achievement of goals
- Results orientation

The assessment is discretionary and based on a wide range of considerations which often change over the course of the year.

Appendix B Bonus Payout and Company Performance Calculations

Bonus Payout Calculation:

$$\text{Eligible Compensation} \times \text{Target Bonus \% based on Salary Grade} \times \left[\text{Company Performance Allocation}^* \times \text{Company Performance Multiplier} + \text{Individual Performance Allocation}^* \times \text{Individual Performance Multiplier} \right]$$

(0-100%) (0-150%) (0-100%) (0-150%)

*Company Performance Allocation + Individual Performance Allocation = 100%
Allocations are based on employee salary grade

**Company Performance Multiplier:

$$25\% \times \text{EH\&S Achievement}^{\dagger} (0-150\%) + 75\% \times \left[25\% \times \text{Reliability} (0-150\%) + 25\% \times \text{Equipment Utilization} (0-150\%) + 25\% \times \text{Operating Expense} (0-150\%) + 25\% \times \text{ROCE} (0-150\%) \right]$$

Appendix C Bonus Payout Examples

Example Bonus Calculation 1:

Salary Grade	E12						
Eligible Compensation	\$196,000	Eligible Compensation	Bonus Target %	Co. Perf. Alloc.	Co. Perf. Multiplier	Ind. Perf. Alloc.	Ind. Perf. Multiplier
Performance Rating	Exceeds	\$196,000	40% X	(50% X	110% +	50% X	125%)
Bonus Target %	40%						
Company Performance Allocation	50%	=	\$92,120				
Company Performance Multiplier (0-150%)	110%						
Individual Performance Allocation	50%						
Individual Performance Multiplier (0-150%)	125%						

Example Bonus Calculation 2:

Salary Grade	E06						
Eligible Compensation	\$90,000	Eligible Compensation	Bonus Target %	Ind. Perf. Alloc.	Ind. Perf. Multiplier		
Performance Rating	Far Exceeds	\$90,000	X 14% X	(100% X	150%)		
Bonus Target %	14%						
Company Performance Allocation	N/A	=	\$18,900				
Company Performance Multiplier (0-150%)	N/A						
Individual Performance Allocation	100%						
Individual Performance Multiplier (0-150%)	150%						

Example Bonus Calculation 3:

Hourly Non-Represented	Hrly Non-Rep						
Eligible Compensation	\$70,000	Eligible Compensation	Bonus Target %	Co. Perf. Alloc.	Co. Perf. Multiplier		
Performance Rating	None	\$70,000	6% X	(100% X	110%)		
Bonus Target %	6%						
Company Performance Allocation	100%	=	\$4,620				
Company Performance Multiplier (0-150%)	110%						
Individual Performance Allocation	N/A						
Individual Performance Multiplier (0-150%)	N/A						

**Appendix D
CVR Energy, Inc.**

Eligibility

Non-union General & Administrative and Shared Services employees of the Company and its subsidiaries, including Executive, Legal, Communications, Risk Management, Flight Operations, Finance & Accounting, Treasury, Investor Relations, Tax, IT, Financial Planning & Analysis, Human Resources, Internal Audit, Procurement, Environmental Health & Safety and Ranch Management.

Company Performance: Bonus Payout

The Company Performance Multiplier for the Performance Period will be derived from the corresponding outcomes for CVRR and UAN (Appendix E), weighted based upon Budgeted Adjusted EBITDA for the Period.

**Appendix E
CVR Partners, LP
Bonus Payout Measures**

Environmental Health & Safety (EH&S) Measures (25%)

Three measures evenly weighted (33-1/3% each): Total Recordable Incident Rate (TRIR), Process Safety Tier I Incident Rate (PSIR), and Environmental Events (EE):

Percentage Change (over the prior year)

Increase in Incident Rate or Incidents
0%
Decrease > 0% and < 3%
Decrease of 3%
Decrease > 3% and < 10%
Decrease of 10% or more, or if TRIR is maintained at or below 1.0, PSIR at or below 0.2 and EE at or below 20

Bonus Achievement

Zero
50% of Target Percentage (Threshold)
Linear Interpolation between Threshold and Target
Target Percentage
Linear Interpolation between Target and Maximum
150% of Target (Maximum)

Financial Measures (75%)

Four measures evenly weighted (25% each):

Reliability

Greater than 8.0%
8.00%
6.01% to 7.99%
6.00%
5.0% to 5.99%
Less than 5.0%

Bonus Achievement

Zero
50% of Target Percentage (Threshold)
Linear Interpolation between Threshold and Target
Target Percentage
Linear Interpolation between Target and Maximum
150% of Target (Maximum)

Equipment Utilization

Less than 95%
95%
95.01% to 99.99%
100%
100.01% to 104.99%
Greater than 105%

Bonus Achievement

Zero
50% of Target Percentage (Threshold)
Linear Interpolation between Threshold and Target
Target Percentage
Linear Interpolation between Target and Maximum
150% of Target (Maximum)

Operating Expense

Greater than 103.0%
103%
100.1% to 102.99%
100%
95.0% to 99.99%
Less than 95%

Bonus Achievement

Zero
50% of Target Percentage (Threshold)
Linear Interpolation between Threshold and Target
Target Percentage
Linear Interpolation between Target and Maximum
150% of Target (Maximum)

CVRR and UAN ROCE (Ranking vs. Peer Group)**

First (highest)
Second
Third
Fourth
Fifth
Sixth
Seventh

Bonus Achievement

150% of Target (Maximum)
125% of Target Percentage
112.5% of Target Percentage
Target Percentage (100%)
75% of Target Percentage
50% of Target Percentage (Minimum)
Zero

Performance measures subject to peer group ranking will be based on LTM data as of September 30 of the Performance Period.

*The Refining Industry peer group will include Valero, Marathon, PBF Energy, Delek, Holly Frontier and Par Pacific.

**The Fertilizer Industry peer group will consist of CF Industries, LSB Industries, Nutrien Ltd., The Andersons, Inc., Green Plains Partners and Flotek Industries.

Appendix F Definitions

“**Adjusted EBITDA**” for the Company means earnings before interest, taxes, depreciation and amortization, and adjusted for first-in, first-out accounting impacts, unrealized gains and losses on derivative transactions, turnaround expenses, loss on extinguishment of debt, asset impairment charges, non-controlling interest and board-directed actions.

“**Adjusted EBITDA Threshold**” means actual capital expenditures plus reserves for major scheduled turnaround expenses plus interest on debt for the given Performance Period. In Performance Periods that include a turnaround, Adjusted EBITDA Threshold will equal capital expenditures plus total turnaround spend less established turnaround reserves (excluding reserves added in current period) plus interest on debt. **[Redacted]**

“**Chief Executive**” means the President and Chief Executive Officer of the Company.

“**Eligible Compensation**” means (i) for eligible exempt employees, such employee’s base salary at the time the Bonus or Spot Bonus is determined (prorated for time in an eligible position), and (ii) for eligible non-exempt and non-union hourly employees, such employees’ eligible wages for the applicable year as determined by the Company to be required by law.

“**Environmental Events**” (“**EE**”) means the total number of reportable quantities and water deviations.

- Reportable quantities are releases of substances during a 24-hour period that exceed a federal, state or local reporting threshold.
 - o Reportable quantity is an event or contemporaneous combination of events during a 24-hour period that results in a release that exceeds a reportable quantity or quantities of a EPCRA/CERCLA compound as defined in the EPA List of Lists or a release that exceeds any other federal, state or local reporting threshold. Federally permitted releases and continuous releases defined in 40 CFR §302.6 and §302.8 are not considered reportable quantities under this measure.
 - o A reportable quantity is counted by event or contemporaneous combination of events, not by the number of individual reports that are filed or number of compounds which exceed their reportable quantity. Events are considered contemporaneous if they occur within 24-hours or when a common cause results in one or more reportable quantities during contiguous or overlapping 24-hour periods.
- Water deviations are exceedances of a NPDES-based permit limit, wastewater bypasses and sheens to water of the United States.
 - o The number of deviations is based on the number of individual permit limits exceeded irrespective of the number of causal events attributed to the deviation. However, a continuance of an ongoing permit limit deviation would not be double-counted if it were contemporaneous with a prior deviation and/or event.
 - o Oil sheens and reportable quantities to water are only counted once as a water deviation environmental event.

A single event that results in multiple reportable quantities and/or when a water deviation is also a regulatory reportable quantity is not “double-counted” and will only be considered one Environmental Event.

“**Executive Officer**” of the Company means an “executive officer” as that term is defined in Rule 3b-7 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) or an “officer” of the Company for purposes of Section 16 of the Exchange Act.

“**Equipment Utilization**” means (i) for CVRR, actual throughput for the Performance Period divided by the planned throughput for the Performance Period, and (ii) for UAN, adjusted equivalent tons of urea ammonium nitrate production divided by the planned equivalent tons of production for the Performance Period, in each case, as adjusted at the discretion of the Compensation Committee for events or downtime caused by third parties. Planned throughput and production is reflected in the Company’s annual volumetric plan. Monthly targets may be adjusted on a month by month basis to optimize production for which there is an economic incentive to do so during the given period. In such cases, the annual volumetric plan will be adjusted for the purposes of Bonus calculations with the new targets in place of the original targets.

“**Operating Expense**” means measurement of actual controllable and fixed operating costs divided by budgeted amounts. For purposes of calculating the Bonus, budgeted amounts are subject to revision by the Board in its discretion based on changes in business conditions or configuration of the business (e.g., items such as acquisitions or divestitures, unusual or non-recurring charges and changes in staffing relating to changed strategy approved by the Board will be considered as items for potential adjustment).

“**Process Safety Incident Rate**” (“**PSIR**”) means a standardized measure of process safety performance for the number of process safety tier 1 events per 100 full-time equivalent employees, as defined in the recommended practice for process safety performance indicators, ANSI/API RP 754.

A process safety tier 1 event is an unplanned or uncontrolled loss of primary containment of any material, including non-toxic and non-flammable materials, from a process that results in one or more consequences, including:

- an employee, contractor or subcontractor “days away from work” injury and/or fatality;
- a hospital admission and/or fatality or a third-party;
- an officially declared community evacuation or community shelter-in-place;
- a fire or explosion resulting in greater than or equal to \$25,000 of direct cost to the company;
- an officially declared community evacuation or community shelter-in-place;
- a pressure relief device (PRD) discharge to atmosphere whether directly or via a downstream destructive device that results in one or more of four defined consequences and a PRD discharge quantity greater than defined threshold quantities in a one-hour period; or,
- a release of material greater than defined threshold quantities described in any one-hour period.

“Reliability” means Lost Profit Opportunity (“LPO”), defined as foregone gross margin that results from operational variance due to factors within the Company’s control, specifically including human and equipment performance, divided by the sum of actual gross margin plus LPO.

“Return on Capital Employed” (“ROCE”) means operating income before depreciation and amortization (excluding asset impairments, non-cash asset write-downs and inventory valuation gains or losses) divided by average Capital Employed during the Period (averages calculated using 5-quarter end balances for the measurement period).

“Capital Employed” means the total assets, less current liabilities (adjusted for any asset or inventory valuations imputed on operating income).

“Total Recordable Injury Rate” (“TRIR”) means a standardized measure of safety performance for the number of work-related injuries per 100 full-time equivalent employees, as defined by OSHA.

“Throughput” means total crude oil and other feedstocks charged to the refinery including isobutane, normal butane, natural gasoline, gas oil, biodiesel and ethanol used for blending.

Appendix G Clawback and Recoupment Policy

This Clawback and Recoupment Policy applies to each Bonus and Spot Bonus (for purposes of this Plan, an “Award”).

If the Compensation Committee in its sole and absolute discretion, determines that (i) there has been misconduct or a gross dereliction of duty resulting in either a violation of law or Company Policy, that, in either case, causes significant financial or reputational harm to the Company (or any of its affiliates), and that an employee committed the misconduct or gross dereliction of duty, or failed in his or her responsibility to manage or monitor the applicable conduct or risk; (ii) an employee has committed an immoral act which is reasonably likely to impair the reputation of the Company (or any of its affiliates); (iii) an employee committed, or was indicted for, a felony or any crime involving fraud or embezzlement or dishonesty or was convicted of, or entered a plea of *nolo contendere* to a misdemeanor (other than a traffic violation) punishable by imprisonment under federal, state or local law; (iv) an employee violated any securities or employment laws or regulations; (v) an employee materially breached a Company Policy or any non-compete and/or non-solicitation clause included in an agreement or offer letter with such employee’s employer; (vi) an employee embezzled and/or misappropriated any property of the Company (or any of its affiliates) or committed any act involving fraud with respect to the Company (or any of its affiliates); or (vii) an employee engaged in conduct (including by omission) or an event or condition has occurred, which, in each case, would have given the Company or its subsidiaries the right to terminate the employee’s employment for Cause (as defined herein), then, to the extent not prohibited by applicable law, such Compensation Committee, in its sole and absolute discretion, may cancel, declare forfeited, or rescind such Award, or may seek reimbursement from such employee (and such employee will be obligated to repay) all or any portion of any payments made to such employee in respect of such Award.

If the Compensation Committee determines, in its sole and absolute discretion, that calculations underlying the performance measures and targets, including but not limited to mistakes in the Company’s financial statements, were incorrect, then such Compensation Committee may, in its sole and absolute discretion, seek to recover the amount of any payment made to employees that exceeded the amount that would have been paid based on the corrected calculations.

To the extent not prohibited by applicable law, if an employee is an officer, or, if applicable, has otherwise been designated by the Board of the Company as an Executive Officer, the Board may seek reimbursement of any payment made to such employee in respect of an Award in the event of a restatement of such Company’s (or any of its subsidiaries’) financial results (occurring due to material noncompliance with any financial reporting requirements under applicable securities laws) that reduced a previously granted payment made to such employee in respect of an Award. In that event, the Compensation Committee may, in its sole and absolute discretion, seek to recover the amount of any such payment made to the employee that exceeded the amount that would have been paid based on the restated financial results.

If the Company subsequently determines that it is required by law to apply a “clawback” or alternate recoupment provision to an Award, under the Dodd-Frank Wall Street Reform and Consumer Protection Act or otherwise, then such clawback or recoupment provision also shall apply to such Award, as if it had been included on the effective date of such Award.

To the extent not prohibited under applicable law, the Company (or any of its subsidiaries) (as applicable), in its sole and absolute discretion, will have the right to set off (or cause to be set off) any amounts otherwise due to employee from such Company or a subsidiary in satisfaction of any repayment obligation of such employee hereunder, provided that any such amounts are exempt from, or set off in a manner intended to comply with the requirements of Section 409A of the Internal Revenue Code of 1986, as amended.

For the avoidance of doubt, the Company’s and its subsidiaries’ rights under this Plan will apply to employees, without regard to whether any such employee is currently providing, or previously provided, services to the Company or its subsidiary as an employee.

“Cause” for purposes of any Award means such employee’s (i) refusal or neglect to perform substantially his or her employment-related duties or services, (ii) personal dishonesty, incompetence, willful misconduct or breach of fiduciary duty, (iii) indictment for, conviction of or entering a plea of guilty or nolo contendere to a crime constituting a felony or his or her willful violation of any applicable law (other than a traffic violation or other offense or violation outside of the course of employment or services to the Company or its affiliates which in no way adversely affects the Company and its affiliates or their reputation or the ability of the employee to perform his or her employment-related duties or services or to represent the Company or any affiliate of the Company that employs such employee or to which the employee performs services), (iv) failure to reasonably cooperate, following a request to do so by the Company, in any internal or governmental investigation of the Company or any of its affiliates or (v) material breach of any written covenant or agreement with the Company or any of its affiliates not to disclose any information pertaining to the Company or such affiliate or not to compete or interfere with the Company or such affiliate; provided that, in the case of any employee who, as of the date of determination, is party to an effective services, severance or employment agreement with the Company or any affiliate, “Cause” will have the meaning, if any, specified in such agreement.

CVR Partners, LP

Performance-Based Bonus Plan

Philosophy / Background

CVR Partners, LP (the “Company”) is committed to wages and benefits that are competitive with a market-based, pay-for-performance compensation philosophy, providing such base pay, bonus and long-term incentive awards in line with those of the fertilizer industry. This Performance-Based Bonus Plan (the “Plan”) is intended to reward high performance employees, and to retain these employees in critical roles, through the issuance of bonus awards (each, a “Bonus”).

Administration

The Plan is maintained and administered by, or under the direction of, the Compensation Committee (the “Compensation Committee”) of the board of directors (the “Board”) of the general partner of the Company with respect to employees of the Company and its subsidiaries, excluding CVR Energy, Inc. (“CVI”), CVR Refining, LP (“CVRR”), their respective general partners and their respective subsidiaries (references to “employees” within this Plan are references to all employees of the foregoing entities).

The Compensation Committee shall annually approve all salaries, targets and bonus metrics for employees in Grade E14 and above, and shall annually approve a total bonus pool for employees in Grade E13 and below. The Compensation Committee delegates to the Chief Executive Officer the authority to approve payouts from such total bonus pool to employees in Grade E13 and below, in his sole discretion. The Chief Executive Officer shall also be responsible for assigning salaries, bonus targets, and Grade levels to employees in Grade E13 and below.

In the event of a claim or dispute brought forth by any employee with a Grade level of E11 or below, the decision of the Chief Executive as to the facts in the case and the meaning and intent of any provision of the Plan, or its application, shall be final, binding, and conclusive. In the event of a claim or dispute brought forth by any employee with a Grade level of E12 or above, the decision of the Compensation Committee as to the facts in the case and the meaning and intent of any provision of the Plan, or its application, shall be final, binding, and conclusive.

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Eligibility and Administration

Bonuses are made based on the applicable calendar year during which the employees performed the services and are generally paid (to the extent payable) after the financials have been audited and within 90 days of the end of the calendar year (the “Performance Period” or “Period”).

Generally, only exempt, non-exempt and non-union hourly employees are eligible to receive a Bonus, provided that, to receive a Bonus, an employee must: (i) be actively employed with the Company for at least 180 days during the calendar year; (ii) consistently perform at or above expectations for their role; (iii) be actively employed on the date of payout and not on a performance improvement plan or in corrective or disciplinary action status as a result of poor performance during the Performance Period. Employees hired prior to October 1 during the Performance Period will be eligible to receive a Bonus provided the above requirements (i) and (iii) are met.

Subject to annual review, Bonuses are computed in accordance with each eligible employee’s Grade (as shown in Appendix A), prorated for time in an eligible position, as well as a performance multiplier of zero to 150 percent, based on performance against the achievement of the allocated Company and individual performance measures described herein. Appendices A-E present the overall compensation structure (Appendix A), example calculations (Appendices B, C), eligibility (Appendix D) and bonus payout measures (Appendix E). The Individual Performance Multiplier component of a Bonus, if any, is entirely discretionary.

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Company Performance: Environmental Health & Safety (EH&S) Measures – 25%

EH&S measures are as follows (see Appendix F for definitions):

- Personal Safety – Total Recordable Injury Rate (TRIR);
- Process Safety – Process Safety Tier 1 Events Incident Rate (PSIR); and
- Environmental Events (EE) - Number of “numerical” releases, spills, permit exceedances and violations.

Company Performance: Financial Measures – 75%

Financial measures are objectives related to the following (see Appendix F for definitions):

- Reliability;
- Equipment Utilization;
- Operating Expense; and
- Return on Capital Employed.

Spot Bonus

Introduction

Employees making an extraordinary contribution to the furtherance of Company financial performance or advances in Company culture may be nominated by their manager or executive sponsor for a Bonus on a spot basis (a “Spot Bonus”), subject to approval by the Chief Executive. Spot Bonuses will be limited to employees in salary grades E14 and below and a maximum value of five thousand dollars (\$5,000).

Terms and Conditions of Spot Bonus

Except as specifically set forth herein, the foregoing provisions of the Plan will likewise apply to a Spot Bonus. For the avoidance of doubt, these provisions relate to, among others, forfeiture and/or recoupment, amendment or termination, tax withholding, data protection and consent and governing law.

General Provisions

See Appendix F for definitions relating to the Plan.

Participation in the Plan is subject to (i) each individual employee’s compliance with the Company’s mission and values, its code of ethics and its policies and procedures, including, without limitation, the Corporate Policies and Procedures and employee handbook (collectively, “Company Policies”), and (ii) the Clawback and Recoupment Policy attached as Appendix G.

Each employee that is eligible and receives a Bonus or Spot Bonus will be liable for any and all federal, state, provincial, local or foreign taxes, pension plan contributions, employment insurance premiums, social insurance contributions, amounts payable to a governmental and/or regulatory body in the employee’s country and other levies of any kind required by applicable laws to be deducted or withheld with respect to any such award (collectively, the “Withholding Taxes”). The Company will have the right to deduct and withhold all required Withholding Taxes from any payment or other consideration deliverable to an employee pursuant to any such payment. All awards under the Plan are intended to be exempt from Section 409A of the Internal Revenue Code of 1986, as amended, and shall be construed and interpreted in accordance with such intent.

Participation in the Plan does not confer upon any employee any right to continue in the employ of the Company or its subsidiaries, nor interfere in any way with the right of the Company and its subsidiaries to terminate any employee's employment at any time. The Company and its subsidiaries are under no obligation to continue the Plan in future years.

The Compensation Committee may at any time, or from time to time, in its sole and absolute discretion, (a) amend, alter or modify the provisions of this Plan, (b) terminate this Plan, or (c) terminate the participation of an employee or group of employees in this Plan; provided, however, that in the event of the termination of the Plan or a termination of participation, the Compensation Committee, in its sole and absolute discretion, may determine that a prorated award is payable to employees who were participants in this Plan under such terms and conditions as established by the Compensation Committee.

Notwithstanding anything herein to the contrary, whether or not any payment or award is authorized, earned or paid under the Plan will be determined by the Compensation Committee in its sole and absolute discretion, and no such payment or award shall be earned, nor shall any right to any such payment or award exist or accrue, unless, among other factors, such payment or award has been authorized by the Compensation Committee in its sole and absolute discretion, and actually paid to the employee. In addition, whether or not any payment or award is authorized, earned or paid pursuant to the Plan is without regard to whether any of the individual performance metrics, financial performance targets and/or goals, or any other benchmarks, targets, personal goals or criteria set forth in the Plan are met, not met, exceeded or not exceeded.

No employee, beneficiary or other person shall have any right, title or interest in any amount awarded under the Plan prior to the payment of such award to him or her. An employee's rights to a payment under the Plan are no greater than those of unsecured general creditors of the Company or its subsidiaries.

By participating in the Plan, each employee consents to the holding and processing of personal information provided by such employee to the employer, any affiliate of the employer, trustee or third party service provider, for all purposes relating to the operation of the Plan. Consents include, but are not limited to: (i) administering and maintaining employee records; (ii) providing information to the employer, its affiliates, trustees of any employee benefit trust, registrars, brokers or third party administrators of the Plan; (iii) providing information to future purchasers or merger partners of the employer or any of its affiliates, or the business in which the employee works; and (iv) to the extent not prohibited by applicable law, transferring information about the employee to any country or territory that may not provide the same protection for the information as the employee's home country.

The Plan is governed by the laws of the State of New York and as such will be construed under and in accordance with the laws of the State of New York without regard to conflicts of law.

**Appendix A
Compensation Structure: Base Pay & Incentive Plans**

[Table Redacted]

Individual Performance Measures

Supervisor's assessment of employee's performance will be based on the following categories:

- Interpersonal effectiveness
- Business conduct
- Professional and technical development
- Leadership
- Achievement of goals
- Results orientation

The assessment is discretionary and based on a wide range of considerations which often change over the course of the year.

**Appendix B
Bonus Payout and Company Performance Calculations**

Bonus Payout Calculation:

$$\text{Eligible Compensation} \times \text{Target Bonus \% based on Salary Grade} \times \left[\begin{array}{l} \text{Company Performance Allocation*} \\ \text{(0-100\%)} \end{array} \right] \times \left[\begin{array}{l} \text{Company Performance Multiplier} \\ \text{(0-150\%)} \end{array} \right] \times \left[\begin{array}{l} \text{Individual Performance Allocation*} \\ \text{(0-100\%)} \end{array} \right] \times \left[\begin{array}{l} \text{Individual Performance Multiplier} \\ \text{(0-150\%)} \end{array} \right]$$

*Company Performance Allocation + Individual Performance Allocation = 100%
Allocations are based on employee salary grade

****Company Performance Multiplier:**

$$25\% \times \left[\begin{array}{l} \text{EH\&S} \\ \text{Achievement} \\ \text{(0-150\%)} \end{array} \right] + 75\% \times \left[\begin{array}{l} 25\% \times \left[\begin{array}{l} \text{Reliability} \\ \text{(0-150\%)} \end{array} \right] + 25\% \times \left[\begin{array}{l} \text{Equipment} \\ \text{Utilization} \\ \text{(0-150\%)} \end{array} \right] + 25\% \times \left[\begin{array}{l} \text{Operating} \\ \text{Expense} \\ \text{(0-150\%)} \end{array} \right] + 25\% \times \left[\begin{array}{l} \text{ROCE} \\ \text{(0-150\%)} \end{array} \right] \end{array} \right]$$

**Appendix C
Bonus Payout Examples**

Example Bonus Calculation 1:

Salary Grade	E12						
Eligible Compensation	\$196,000	Eligible Compensation	Bonus Target %	Co. Perf. Alloc.	Co. Perf. Multiplier	Ind. Perf. Alloc.	Ind. Perf. Multiplier
Performance Rating	Exceeds	\$196,000	40% X	(50% X	110% +	50% X	125%)
Bonus Target %	40%						
Company Performance Allocation	50%	=	\$92,120				
Company Performance Multiplier (0-150%)	110%						
Individual Performance Allocation	50%						
Individual Performance Multiplier (0-150%)	125%						

Example Bonus Calculation 2:

Salary Grade	E06						
Eligible Compensation	\$90,000	Eligible Compensation	Bonus Target %	Ind. Perf. Alloc.	Ind. Perf. Multiplier		
Performance Rating	Far Exceeds	\$90,000 X	14% X	(100% X	150%)		
Bonus Target %	14%						
Company Performance Allocation	N/A	=	\$18,900				
Company Performance Multiplier (0-150%)	N/A						
Individual Performance Allocation	100%						
Individual Performance Multiplier (0-150%)	150%						

Example Bonus Calculation 3:

Hourly Non-Represented	Hrly Non-Rep						
Eligible Compensation	\$70,000	Eligible Compensation	Bonus Target %	Co. Perf. Alloc.	Co. Perf. Multiplier		
Performance Rating	None	\$70,000	6% X	(100% X	110%)		
Bonus Target %	6%						
Company Performance Allocation	100%	=	\$4,620				
Company Performance Multiplier (0-150%)	110%						
Individual Performance Allocation	N/A						
Individual Performance Multiplier (0-150%)	N/A						

**Appendix D
CVR Partners, LP**

Eligibility

Non-union direct employees of Company, its general partner and their respective subsidiaries, including Fertilizer Executives, Marketing, Logistics, Company Controller, Coffeyville Nitrogen Planning and East Dubuque Nitrogen Fertilizers Planning.

**Appendix E
CVR Partners, LP
Bonus Payout Measures**

Environmental Health & Safety (EH&S) Measures (25%)

Three measures evenly weighted (33-1/3% each): Total Recordable Incident Rate (TRIR), Process Safety Tier I Incident Rate (PSIR), and Environmental Events (EE):

Percentage Change(over the prior year)

Increase in Incident Rate or Incidents
0%
Decrease > 0% and < 3%
Decrease of 3%
Decrease > 3% and < 10%
Decrease of 10% or more, or if TRIR is maintained at or below 1.0, PSIR at or below 0.2 and EE at or below 20

Bonus Achievement

Zero
50% of Target Percentage (Threshold)
Linear Interpolation between Threshold and Target
Target Percentage
Linear Interpolation between Target and Maximum
150% of Target (Maximum)

Financial Measures (75%)

Four measures evenly weighted (25% each):

Reliability

Greater than 8.0%
8.00%
6.01% to 7.99%
6.00%
5.0% to 5.99%
Less than 5.0%

Bonus Achievement

Zero
50% of Target Percentage (Threshold)
Linear Interpolation between Threshold and Target
Target Percentage
Linear Interpolation between Target and Maximum
150% of Target (Maximum)

Equipment Utilization

Less than 95%
95%
95.01% to 99.99%
100%
100.01% to 104.99%
Greater than 105%

Bonus Achievement

Zero
50% of Target Percentage (Threshold)
Linear Interpolation between Threshold and Target
Target Percentage
Linear Interpolation between Target and Maximum
150% of Target (Maximum)

Operating Expense

Greater than 103.0%
103%

Bonus Achievement

Zero
50% of Target Percentage (Threshold)

100.1% to 102.99%
100%
95.0% to 99.99%
Less than 95%

ROCE (Ranking vs. Peer Group*)

First (highest)
Second
Third
Fourth
Fifth
Sixth
Seventh

Linear Interpolation between Threshold and Target
Target Percentage
Linear Interpolation between Target and Maximum
150% of Target (Maximum)

Bonus Achievement

150% of Target (Maximum)
125% of Target Percentage
112.5% of Target Percentage
Target Percentage (100%)
75% of Target Percentage
50% of Target Percentage (Minimum)
Zero

Performance measures subject to peer group ranking will be based on LTM data as of September 30 of the Performance Period.

*The Fertilizer Industry peer group will consist of CF Industries, LSB Industries, Nutrien Ltd., The Andersons, Inc., Green Plains Partners and Flotek Industries.

**Appendix F
Definitions**

“**Adjusted EBITDA**” for the Company means earnings before interest, taxes, depreciation and amortization, and adjusted for first-in, first-out accounting impacts, unrealized gains and losses on derivative transactions, turnaround expenses, loss on extinguishment of debt, asset impairment charges, non-controlling interest and board-directed actions.

“**Adjusted EBITDA Threshold**” means actual capital expenditures plus reserves for major scheduled turnaround expenses plus interest on debt for the given Performance Period. In Performance Periods that include a turnaround, Adjusted EBITDA Threshold will equal capital expenditures plus total turnaround spend less established turnaround reserves (excluding reserves added in the current period) plus interest on debt. **[Redacted]**

“**Chief Executive**” means the President and Chief Executive Officer of the Company.

“**Eligible Compensation**” means (i) for eligible exempt employees, such employee’s base salary at the time the Bonus or Spot Bonus is determined (prorated for time in an eligible position), and (ii) for eligible non-exempt and non-union hourly employees, such employees’ eligible wages for the applicable year as determined by the Company to be required by law.

“**Environmental Events**” (“**EE**”) means the total number of reportable quantities and water deviations.

- Reportable quantities are releases of substances during a 24-hour period that exceed a federal, state or local reporting threshold.
 - o Reportable quantity is an event or contemporaneous combination of events during at 24-hour period that results in a release that exceeds a reportable quantity or quantities of a EPCRA/CERCLA compound as defined in the EPA List of Lists or a release that exceeds any other federal, state or local reporting threshold. Federally permitted releases and continuous releases defined in 40 CFR §302.6 and §302.8 are not considered reportable quantities under this measure.
 - o A reportable quantity is counted by event or contemporaneous combination of events, not by the number of individual reports that are filed or number of compounds which exceed their reportable quantity. Events are considered contemporaneous if they occur within 24-hours or when a common cause results in one or more reportable quantities during contiguous or overlapping 24-hour periods.
- Water deviations are exceedances of a NPDES-based permit limit, wastewater bypasses and sheens to water of the United States.
 - o The number of deviations is based on the number of individual permit limits exceeded irrespective of the number of causal events attributed to the deviation. However, a continuance of an ongoing permit limit deviation would not be double-counted if it were contemporaneous with a prior deviation and/or event.
 - o Oil sheens and reportable quantities to water are only counted once as a water deviation environmental event.

A single event that results in multiple reportable quantities and/or when a water deviation is also a regulatory reportable quantity is not “double-counted” and will only be considered one Environmental Event.

“**Executive Officer**” of the Company means an “executive officer” as that term is defined in Rule 3b-7 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) or an “officer” of the Company for purposes of Section 16 of the Exchange Act.

“**Equipment Utilization**” means adjusted equivalent tons of urea ammonium nitrate production divided by the planned equivalent tons of production for the Performance Period, as adjusted at the discretion of the Compensation Committee for events or downtime caused by third parties. Planned production is reflected in the Company’s annual volumetric plan. Monthly targets may be adjusted on a month by month basis to optimize production for which there is an economic incentive to do so during the given period. In such cases, the annual volumetric plan will be adjusted for the purposes of Bonus calculations with the new targets in place of the original targets.

“**Operating Expense**” means measurement of actual controllable and fixed operating costs divided by budgeted amounts. For purposes of calculating the Bonus, budgeted amounts are subject to revision by the Board in its discretion based on changes in business conditions or configuration of the business (e.g., items such as acquisitions or divestitures, unusual or non-recurring charges and changes in staffing relating to changed strategy approved by the Board will be considered as items for potential adjustment).

“**Process Safety Incident Rate**” (“**PSIR**”) means a standardized measure of process safety performance for the number of process safety tier 1 events per 100 full-time equivalent employees, as defined in the recommended practice for process safety performance indicators, ANSI/API RP 754.

A process safety tier 1 event is an unplanned or uncontrolled loss of primary containment of any material, including non-toxic and non-flammable materials, from a process that results in one or more consequences, including:

- an employee, contractor or subcontractor “days away from work” injury and/or fatality;
- a hospital admission and/or fatality or a third-party;
- an officially declared community evacuation or community shelter-in-place;
- a fire or explosion resulting in greater than or equal to \$25,000 of direct cost to the company;
- an officially declared community evacuation or community shelter-in-place;
- a pressure relief device (PRD) discharge to atmosphere whether directly or via a downstream destructive device that results in one or more of four defined consequences and a PRD discharge quantity greater than defined threshold quantities in a one-hour period; or,
- a release of material greater than defined threshold quantities described in any one-hour period.

“**Reliability**” means Lost Profit Opportunity (“LPO”), defined as foregone gross margin that results from operational variance due to factors within the Company’s control, specifically including human and equipment performance, divided by the sum of actual gross margin plus LPO.

“**Return on Capital Employed**” (“**ROCE**”) means operating income before depreciation and amortization (excluding asset impairments, non-cash asset write-downs and inventory valuation gains or losses) divided by average Capital Employed during the Period (averages calculated using 5-quarter end balances for the measurement period).

“**Capital Employed**” means total assets, less current liabilities (adjusted for any asset or inventory valuations imputed on operating income).

“**Total Recordable Injury Rate**” (“**TRIR**”) means a standardized measure of safety performance for the number of work-related injuries per 100 full-time equivalent employees, as defined by OSHA.

Appendix G

Clawback and Recoupment Policy

This Clawback and Recoupment Policy applies to each Bonus and Spot Bonus (for purposes of this Plan, an "Award").

If the Compensation Committee in its sole and absolute discretion, determines that (i) there has been misconduct or a gross dereliction of duty resulting in either a violation of law or Company Policy, that, in either case, causes significant financial or reputational harm to the Company (or any of its affiliates), and that an employee committed the misconduct or gross dereliction of duty, or failed in his or her responsibility to manage or monitor the applicable conduct or risk; (ii) an employee has committed an immoral act which is reasonably likely to impair the reputation of the Company (or any of its affiliates); (iii) an employee committed, or was indicted for, a felony or any crime involving fraud or embezzlement or dishonesty or was convicted of, or entered a plea of *nolo contendere* to a misdemeanor (other than a traffic violation) punishable by imprisonment under federal, state or local law; (iv) an employee violated any securities or employment laws or regulations; (v) an employee materially breached a Company Policy or any non-compete and/or non-solicitation clause included in an agreement or offer letter with such employee's employer; (vi) an employee embezzled and/or misappropriated any property of the Company (or any of its affiliates) or committed any act involving fraud with respect to the Company (or any of its affiliates); or (vii) an employee engaged in conduct (including by omission) or an event or condition has occurred, which, in each case, would have given the Company or its subsidiaries the right to terminate the employee's employment for Cause (as defined herein), then, to the extent not prohibited by applicable law, such Compensation Committee, in its sole and absolute discretion, may cancel, declare forfeited, or rescind such Award, or may seek reimbursement from such employee (and such employee will be obligated to repay) all or any portion of any payments made to such employee in respect of such Award.

If the Compensation Committee determines, in its sole and absolute discretion, that calculations underlying the performance measures and targets, including but not limited to mistakes in the Company's financial statements, were incorrect, then such Compensation Committee may, in its sole and absolute discretion, seek to recover the amount of any payment made to employees that exceeded the amount that would have been paid based on the corrected calculations.

To the extent not prohibited by applicable law, if an employee is an officer, or, if applicable, has otherwise been designated by the Board of the Company as an Executive Officer, the Board may seek reimbursement of any payment made to such employee in respect of an Award in the event of a restatement of such Company's (or any of its subsidiaries') financial results (occurring due to material noncompliance with any financial reporting requirements under applicable securities laws) that reduced a previously granted payment made to such employee in respect of an Award. In that event, the Compensation Committee may, in its sole and absolute discretion, seek to recover the amount of any such payment made to the employee that exceeded the amount that would have been paid based on the restated financial results.

If the Company subsequently determines that it is required by law to apply a "clawback" or alternate recoupment provision to an Award, under the Dodd-Frank Wall Street Reform and Consumer Protection Act or otherwise, then such clawback or recoupment provision also shall apply to such Award, as if it had been included on the effective date of such Award.

To the extent not prohibited under applicable law, the Company (or any of its subsidiaries) (as applicable), in its sole and absolute discretion, will have the right to set off (or cause to be set off) any amounts otherwise due to employee from such Company or a subsidiary in satisfaction of any repayment obligation of such employee hereunder, provided that any such amounts are exempt from, or set off in a manner intended to comply with the requirements of Section 409A of the Internal Revenue Code of 1986, as amended.

For the avoidance of doubt, the Company's and its subsidiaries' rights under this Plan will apply to employees, without regard to whether any such employee is currently providing, or previously provided, services to the Company or its subsidiary as an employee.

"Cause" for purposes of any Award means such employee's (i) refusal or neglect to perform substantially his or her employment-related duties or services, (ii) personal dishonesty, incompetence, willful misconduct or breach of fiduciary duty, (iii) indictment for, conviction of or entering a plea of guilty or *nolo contendere* to a crime constituting a felony or his or her willful violation of any applicable law (other than a traffic violation or other offense or violation outside of the course of employment or services to the Company or its affiliates which in no way adversely affects the Company and its affiliates or their reputation or the ability of the employee to perform his or her employment-related duties or services or to represent the Company or any affiliate of the Company that employs such employee or to which the employee performs services), (iv) failure to reasonably cooperate, following a request to do so by the Company, in any internal or governmental investigation of the Company or any of its affiliates or (v) material breach of any written covenant or agreement with the Company or any of its affiliates not to disclose any information pertaining to the Company or such affiliate or not to compete or interfere with the Company or such affiliate; provided that, in the case of any employee who, as of the date of determination, is party to an effective services, severance or employment agreement with the Company or any affiliate, "Cause" will have the meaning, if any, specified in such agreement.

CVR Refining, LP

Performance-Based Bonus Plan

Philosophy / Background

CVR Refining, LP (the "Company") is committed to wages and benefits that are competitive with a market-based, pay-for-performance compensation philosophy, providing such base pay, bonus and long-term incentive awards in line with those of the refining industry. This Performance-Based Bonus Plan (the "Plan") is intended to reward high performance employees, and to retain these employees in critical roles, through the issuance of bonus awards (each, a "Bonus").

Administration

The Plan is maintained and administered by, or under the direction of, the Compensation Committee (the "Compensation Committee") of the board of directors (the "Board") of the general partner of the Company with respect to employees of the Company and its subsidiaries, excluding CVR Energy, Inc. ("CVI"), CVR Partners, LP ("UAN"), their respective general partners and their respective subsidiaries (references to "employees" within this Plan are references to all employees of the foregoing entities).

The Compensation Committee shall annually approve all salaries, targets and bonus metrics for employees in Grade E14 and above, and shall annually approve a total bonus pool for employees in Grade E13 and below. The Compensation Committee delegates to the Chief Executive Officer the authority to approve payouts from such total bonus pool to employees in Grade E13 and below, in his sole discretion. The Chief Executive Officer shall also be responsible for assigning salaries, bonus targets, and Grade levels to employees in Grade E13 and below.

In the event of a claim or dispute brought forth by any employee with a Grade level of E11 or below, the decision of the Chief Executive as to the facts in the case and the meaning and intent of any provision of the Plan, or its application, shall be final, binding, and conclusive. In the event of a claim or dispute brought forth by any employee with a Grade level of E12 or above, the decision of the Compensation Committee as to the facts in the case and the meaning and intent of any provision of the Plan, or its application, shall be final, binding, and conclusive.

The Plan described herein does not create a contractual obligation on the part of the Company. The Company expressly reserves the right to modify, discontinue, or otherwise change the Plan outlined in this document at the sole and absolute discretion of the Company without advance notice.

Introduction

The purpose of the Plan and any Bonus to be paid hereunder is to enhance the Company's ability to attract, motivate, reward and retain employees, and to strengthen their commitment to the success of the Company.

Eligibility and Administration

Bonuses are made based on the applicable calendar year during which the employees performed the services and are generally paid (to the extent payable) after the financials have been audited and within 90 days of the end of the calendar year (the "Performance Period" or "Period").

Generally, only exempt, non-exempt and non-union hourly employees are eligible to receive a Bonus, provided that, to receive a Bonus, an employee must: (i) be actively employed with the Company for at least 180 days during the calendar year; (ii) consistently perform at or above expectations for their role; (iii) be actively employed on the date of payout and not on a performance improvement plan or in corrective or disciplinary action status as a result of poor performance during the Performance Period. Employees hired prior to October 1 during the Performance Period will be eligible to receive a Bonus provided the above requirements (i) and (iii) are met.

Subject to annual review, Bonuses are computed in accordance with each eligible employee's Grade (as shown in Appendix A), prorated for time in an eligible position, as well as a performance multiplier of zero to 150 percent, based on performance against the achievement of the allocated Company and individual performance measures described herein. Appendices A-E present the overall compensation structure (Appendix A), example calculations (Appendices B, C), eligibility (Appendix D) and bonus payout measures (Appendix E). The Individual Performance Multiplier component of a Bonus, if any, is entirely discretionary.

In addition, if the Adjusted EBITDA Threshold established for the Company for a given Performance Period is not reached, no Bonus will be paid for the Period, subject to Compensation Committee discretion. The Compensation Committee may, in its sole and absolute discretion, waive the Adjusted EBITDA Threshold requirement, increase, decrease, or otherwise adjust performance measures, targets, and payout ranges used hereunder, as a result of extraordinary or non-recurring events, changes in applicable accounting rules or principles, changes in the Company's methods of accounting, changes in applicable law, changes due to consolidations, growth capital spend programs, acquisitions, or reorganizations affecting the Company and its subsidiaries and affiliates, or other similar changes in the Company's business.

Company Performance: Environmental Health & Safety (EH&S) Measures – 25%

EH&S measures are as follows (see Appendix F for definitions):

- Personal Safety – Total Recordable Injury Rate (TRIR);
- Process Safety – Process Safety Tier 1 Events Incident Rate (PSIR); and
- Environmental Events (EE) - Number of "numerical" releases, spills, permit exceedances and violations.

Company Performance: Financial Measures – 75%

Financial measures are objectives related to the following (see Appendix F for definitions):

- Reliability;
- Equipment Utilization;
- Operating Expense; and
- Return on Capital Employed.

Spot Bonus

Introduction

Employees making an extraordinary contribution to the furtherance of Company financial performance or advances in Company culture may be nominated by their manager or executive sponsor for a Bonus on a spot basis (a "Spot Bonus"), subject to approval by the Chief Executive. Spot Bonuses will be limited to employees in salary grades E13 and below and a maximum value of five thousand dollars (\$5,000).

Terms and Conditions of Spot Bonus

Except as specifically set forth herein, the foregoing provisions of the Plan will likewise apply to a Spot Bonus. For the avoidance of doubt, these provisions relate to, among others, forfeiture and/or recoupment, amendment or termination, tax withholding, data protection and consent and governing law.

General Provisions

See Appendix F for definitions relating to the Plan.

Participation in the Plan is subject to (i) each individual employee's compliance with the Company's mission and values, its code of ethics and its policies and procedures, including, without limitation, the Corporate Policies and Procedures and employee handbook (collectively, "Company Policies"), and (ii) the Clawback and Recoupment Policy attached as Appendix G.

Each employee that is eligible and receives a Bonus or Spot Bonus will be liable for any and all federal, state, provincial, local or foreign taxes, pension plan contributions, employment insurance premiums, social insurance contributions, amounts payable to a governmental and/or regulatory body in the employee's country and other levies of any kind required by applicable laws to be deducted or withheld with respect to any such award (collectively, the "Withholding Taxes"). The Company will have the right to deduct and withhold all required Withholding Taxes from any payment or other consideration deliverable to an employee pursuant to any such payment. All awards under the Plan are intended to be exempt from Section 409A of the Internal Revenue Code of 1986, as amended, and shall be construed and interpreted in accordance with such intent.

Participation in the Plan does not confer upon any employee any right to continue in the employ of the Company or its subsidiaries, nor interfere in any way with the right of the Company and its subsidiaries to terminate any employee's employment at any time. The Company and its subsidiaries are under no obligation to continue the Plan in future years.

The Compensation Committee may at any time, or from time to time, in its sole and absolute discretion, (a) amend, alter or modify the provisions of this Plan, (b) terminate this Plan, or (c) terminate the participation of an employee or group of employees in this Plan; provided, however, that in the event of the termination of the Plan or a termination of participation, the Compensation Committee, in its sole and absolute discretion, may determine that a prorated award is payable to employees who were participants in this Plan under such terms and conditions as established by the Compensation Committee.

Notwithstanding anything herein to the contrary, whether or not any payment or award is authorized, earned or paid under the Plan will be determined by the Compensation Committee in its sole and absolute discretion, and no such payment or award shall be earned, nor shall any right to any such payment or award exist or accrue, unless, among other factors, such payment or award has been authorized by the Compensation Committee in its sole and absolute discretion, and actually paid to the employee. In addition, whether or not any payment or award is authorized, earned or paid pursuant to the Plan is without regard to whether any of the individual performance metrics, financial performance targets and/or goals, or any other benchmarks, targets, personal goals or criteria set forth in the Plan are met, not met, exceeded or not exceeded.

No employee, beneficiary or other person shall have any right, title or interest in any amount awarded under the Plan prior to the payment of such award to him or her. An employee's rights to a payment under the Plan are no greater than those of unsecured general creditors of the Company or its subsidiaries.

By participating in the Plan, each employee consents to the holding and processing of personal information provided by such employee to the employer, any affiliate of the employer, trustee or third party service provider, for all purposes relating to the operation of the Plan. Consents include, but are not limited to: (i) administering and maintaining employee records; (ii) providing information to the employer, its affiliates, trustees of any employee benefit trust, registrars, brokers or third party administrators of the Plan; (iii) providing information to future purchasers or merger partners of the employer or any of its affiliates, or the business in which the employee works; and (iv) to the extent not prohibited by applicable law, transferring information about the employee to any country or territory that may not provide the same protection for the information as the employee's home country.

The Plan is governed by the laws of the State of New York and as such will be construed under and in accordance with the laws of the State of New York without regard to conflicts of law.

Appendix A
Compensation Structure: Base Pay & Incentive Plans

[Table Redacted]

Individual Performance Measures

Supervisor's assessment of employee's performance will be based on the following categories:

- Interpersonal effectiveness
- Business conduct
- Professional and technical development
- Leadership
- Achievement of goals
- Results orientation

The assessment is discretionary and based on a wide range of considerations which often change over the course of the year.

Appendix B
Bonus Payout and Company Performance Calculations

Bonus Payout Calculation:

$$\text{Eligible Compensation} \times \text{Target Bonus \% based on Salary Grade} \times \left[\begin{array}{l} \text{Company Performance Allocation*} \\ \text{Company Performance Multiplier} \\ \text{Individual Performance Allocation*} \\ \text{Individual Performance Multiplier} \end{array} \right]$$

*Company Performance Allocation + Individual Performance Allocation = 100%
Allocations are based on employee salary grade

****Company Performance Multiplier:**

$$25\% \times \begin{array}{l} \text{EH\&S} \\ \text{Achievement} \\ \text{(0-150\%)} \end{array} + 75\% \times \left[\begin{array}{l} 25\% \times \begin{array}{l} \text{Reliability} \\ \text{(0-150\%)} \end{array} + 25\% \times \begin{array}{l} \text{Equipment} \\ \text{Utilization} \\ \text{(0-150\%)} \end{array} + 25\% \times \begin{array}{l} \text{Operating} \\ \text{Expense} \\ \text{(0-150\%)} \end{array} + 25\% \times \begin{array}{l} \text{ROCE} \\ \text{(0-150\%)} \end{array} \end{array} \right]$$

Appendix C
Bonus Payout Examples

Example Bonus Calculation 1:

Salary Grade	E12						
Eligible Compensation	\$196,000	Eligible Compensation	Bonus Target %	Co. Perf. Alloc.	Co. Perf. Multiplier	Ind. Perf. Alloc.	Ind. Perf. Multiplier
Performance Rating	Exceeds	\$196,000	40% X	(50% X	110% +	50% X	125%)
Bonus Target %	40%						
Company Performance Allocation	50%	=	\$92,120				
Company Performance Multiplier (0-150%)	110%						
Individual Performance Allocation	50%						
Individual Performance Multiplier (0-150%)	125%						

Example Bonus Calculation 2:

Salary Grade	E06						
Eligible Compensation	\$90,000	Eligible Compensation	Bonus Target %	Ind. Perf. Alloc.	Ind. Perf. Multiplier		
Performance Rating	Far Exceeds	\$90,000	X 14% X	(100% X	150%)		
Bonus Target %	14%						
Company Performance Allocation	N/A	=	\$18,900				
Company Performance Multiplier (0-150%)	N/A						
Individual Performance Allocation	100%						
Individual Performance Multiplier (0-150%)	150%						

Example Bonus Calculation 3:

Hourly Non-Represented	Hrly Non-Rep						
Eligible Compensation	\$70,000	Eligible Compensation	Bonus Target %	Co. Perf. Alloc.	Co. Perf. Multiplier		
Performance Rating	None	\$70,000	6% X	(100% X	110%)		
Bonus Target %	6%						
Company Performance Allocation	100%	=	\$4,620				
Company Performance Multiplier (0-150%)	110%						
Individual Performance Allocation	N/A						
Individual Performance Multiplier (0-150%)	N/A						

**Appendix D
CVR Refining, LP**

Eligibility

Non-union direct employees of Company, its general partner and their respective subsidiaries, including Commercial Executives, Pipeline, Trucking, Marketing, Company Controller, Crude, Planning, Wholesale, Wynnewood and Coffeyville refineries and Capital Projects.

**Appendix E
CVR Refining, LP
Bonus Payout Measures**

Environmental Health & Safety (EH&S) Measures (25%)

Three measures evenly weighted (33-1/3% each): Total Recordable Incident Rate (TRIR), Process Safety Tier I Incident Rate (PSIR), and Environmental Events (EE):

Percentage Change(over the prior year)

Increase in Incident Rate or Incidents
0%
Decrease > 0% and < 3%
Decrease of 3%
Decrease > 3% and < 10%
Decrease of 10% or more, or if TRIR is maintained at or below 1.0, PSIR at or below 0.2 and EE at or below 20

Bonus Achievement

Zero
50% of Target Percentage (Threshold)
Linear Interpolation between Threshold and Target
Target Percentage
Linear Interpolation between Target and Maximum
150% of Target (Maximum)

Financial Measures (75%)

Four measures evenly weighted (25% each):

Reliability

Greater than 8.0%
8.00%
6.01% to 7.99%
6.00%
5.0% to 5.99%
Less than 5.0%

Bonus Achievement

Zero
50% of Target Percentage (Threshold)
Linear Interpolation between Threshold and Target
Target Percentage
Linear Interpolation between Target and Maximum
150% of Target (Maximum)

Equipment Utilization

Less than 95%
95%
95.01% to 99.99%
100%
100.01% to 104.99%
Greater than 105%

Bonus Achievement

Zero
50% of Target Percentage (Threshold)
Linear Interpolation between Threshold and Target
Target Percentage
Linear Interpolation between Target and Maximum
150% of Target (Maximum)

Operating Expense

Greater than 103.0%
103%

Bonus Achievement

Zero
50% of Target Percentage (Threshold)

100.1% to 102.99%
100%
95.0% to 99.99%
Less than 95%

CVRR ROCE (Ranking vs. Peer Group*)

First (highest)
Second
Third
Fourth
Fifth
Six
Seventh

Linear Interpolation between Threshold and Target
Target Percentage
Linear Interpolation between Target and Maximum
150% of Target (Maximum)

Bonus Achievement

150% of Target (Maximum)
125% of Target Percentage
112.5% of Target Percentage
Target Percentage (100%)
75% of Target Percentage
50% of Target Percentage (Minimum)
Zero

Performance measures subject to peer group ranking will be based on LTM data as of September 30 of the Performance Period.

*The Refining Industry peer group will include Valero, Marathon, PBF Energy, Delek, Holly Frontier and Par Pacific.

**Appendix F
Definitions**

“**Adjusted EBITDA**” for the Company means earnings before interest, taxes, depreciation and amortization, and adjusted for first-in, first-out accounting impacts, unrealized gains and losses on derivative transactions, turnaround expenses, loss on extinguishment of debt, asset impairment charges, non-controlling interest and board-directed actions.

“**Adjusted EBITDA Threshold**” means actual capital expenditures plus reserves for major scheduled turnaround expenses plus interest on debt for the given Performance Period. In Performance Periods that include a turnaround, Adjusted EBITDA Threshold will equal capital expenditures plus total turnaround spend less established turnaround reserves (excluding reserves added in the current period) plus interest on debt. **[Redacted]**

“**Chief Executive**” means the President and Chief Executive Officer of the Company.

“**Eligible Compensation**” means (i) for eligible exempt employees, such employee’s base salary at the time the Bonus or Spot Bonus is determined (prorated for time in an eligible position), and (ii) for eligible non-exempt and non-union hourly employees, such employees’ eligible wages for the applicable year as determined by the Company to be required by law.

“**Environmental Events**” (“**EE**”) means the total number of reportable quantities and water deviations.

- Reportable quantities are releases of substances during a 24-hour period that exceed a federal, state or local reporting threshold.
 - o Reportable quantity is an event or contemporaneous combination of events during at 24-hour period that results in a release that exceeds a reportable quantity or quantities of a EPCRA/CERCLA compound as defined in the EPA List of Lists or a release that exceeds any other federal, state or local reporting threshold. Federally permitted releases and continuous releases defined in 40 CFR §302.6 and §302.8 are not considered reportable quantities under this measure.
 - o A reportable quantity is counted by event or contemporaneous combination of events, not by the number of individual reports that are filed or number of compounds which exceed their reportable quantity. Events are considered contemporaneous if they occur within 24-hours or when a common cause results in one or more reportable quantities during contiguous or overlapping 24-hour periods.
- Water deviations are exceedances of a NPDES-based permit limit, wastewater bypasses and sheens to water of the United States.
 - o The number of deviations is based on the number of individual permit limits exceeded irrespective of the number of causal events attributed to the deviation. However, a continuance of an ongoing permit limit deviation would not be double-counted if it were contemporaneous with a prior deviation and/or event.
 - o Oil sheens and reportable quantities to water are only counted once as a water deviation environmental event.

A single event that results in multiple reportable quantities and/or when a water deviation is also a regulatory reportable quantity is not “double-counted” and will only be considered one Environmental Event.

“**Executive Officer**” of the Company means an “executive officer” as that term is defined in Rule 3b-7 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) or an “officer” of the Company for purposes of Section 16 of the Exchange Act.

“**Equipment Utilization**” means actual throughput for the Performance Period divided by the planned throughput for the Performance Period, as adjusted at the discretion of the Compensation Committee for events or downtime caused by third parties. Planned throughput is reflected in the Company’s annual volumetric plan. Monthly targets may be adjusted on a month by month basis to optimize production for which there is an economic incentive to do so during the given period. In such cases, the annual volumetric plan will be adjusted for the purposes of Bonus calculations with the new targets in place of the original targets.

“**Operating Expense**” means measurement of actual controllable and fixed operating costs divided by budgeted amounts. For purposes of calculating the Bonus, budgeted amounts are subject to revision by the Board in its discretion based on changes in business conditions or configuration of the business (e.g., items such as acquisitions or divestitures, unusual or non-recurring charges and changes in staffing relating to changed strategy approved by the Board will be considered as items for potential adjustment).

“**Process Safety Incident Rate**” (“**PSIR**”) means a standardized measure of process safety performance for the number of process safety tier 1 events per 100 full-time equivalent employees, as defined in the recommended practice for process safety performance indicators, ANSI/API RP 754.

A process safety tier 1 event is an unplanned or uncontrolled loss of primary containment of any material, including non-toxic and non-flammable materials, from a process that results in one or more consequences, including:

- an employee, contractor or subcontractor “days away from work” injury and/or fatality;
- a hospital admission and/or fatality or a third-party;
- an officially declared community evacuation or community shelter-in-place;
- a fire or explosion resulting in greater than or equal to \$25,000 of direct cost to the company;
- an officially declared community evacuation or community shelter-in-place;
- a pressure relief device (PRD) discharge to atmosphere whether directly or via a downstream destructive device that results in one or more of four defined consequences and a PRD discharge quantity greater than defined threshold quantities in a one-hour period; or,
- a release of material greater than defined threshold quantities described in any one-hour period.

“**Reliability**” means Lost Profit Opportunity (“**LPO**”), defined as foregone gross margin that results from operational variance due to factors within the Company’s control, specifically including human and equipment performance, divided by the sum of actual gross margin plus LPO.

“**Return on Capital Employed**” (“**ROCE**”) means operating income before depreciation and amortization (excluding asset impairments, non-cash asset write-downs and inventory valuation gains or losses) divided by average Capital Employed during the Period (averages calculated using 5-quarter end balances for the measurement period).

“**Capital Employed**” means the total assets, less current liabilities (adjusted for any asset or inventory valuations imputed on operating income).

“**Total Recordable Injury Rate**” (“**TRIR**”) means a standardized measure of safety performance for the number of work-related injuries per 100 full-time equivalent employees, as defined by OSHA.

“Throughput” means total crude oil and other feedstocks charged to the refinery including isobutane, normal butane, natural gasoline, gas oil, biodiesel and ethanol used for blending.

Appendix G Clawback and Recoupment Policy

This Clawback and Recoupment Policy applies to each Bonus and Spot Bonus (for purposes of this Plan, an “Award”).

If the Compensation Committee in its sole and absolute discretion, determines that (i) there has been misconduct or a gross dereliction of duty resulting in either a violation of law or Company Policy, that, in either case, causes significant financial or reputational harm to the Company (or any of its affiliates), and that an employee committed the misconduct or gross dereliction of duty, or failed in his or her responsibility to manage or monitor the applicable conduct or risk; (ii) an employee has committed an immoral act which is reasonably likely to impair the reputation of the Company (or any of its affiliates); (iii) an employee committed, or was indicted for, a felony or any crime involving fraud or embezzlement or dishonesty or was convicted of, or entered a plea of *nolo contendere* to a misdemeanor (other than a traffic violation) punishable by imprisonment under federal, state or local law; (iv) an employee violated any securities or employment laws or regulations; (v) an employee materially breached a Company Policy or any non-compete and/or non-solicitation clause included in an agreement or offer letter with such employee’s employer; (vi) an employee embezzled and/or misappropriated any property of the Company (or any of its affiliates) or committed any act involving fraud with respect to the Company (or any of its affiliates); or (vii) an employee engaged in conduct (including by omission) or an event or condition has occurred, which, in each case, would have given the Company or its subsidiaries the right to terminate the employee’s employment for Cause (as defined herein), then, to the extent not prohibited by applicable law, such Compensation Committee, in its sole and absolute discretion, may cancel, declare forfeited, or rescind such Award, or may seek reimbursement from such employee (and such employee will be obligated to repay) all or any portion of any payments made to such employee in respect of such Award.

If the Compensation Committee determines, in its sole and absolute discretion, that calculations underlying the performance measures and targets, including but not limited to mistakes in the Company’s financial statements, were incorrect, then such Compensation Committee may, in its sole and absolute discretion, seek to recover the amount of any payment made to employees that exceeded the amount that would have been paid based on the corrected calculations.

To the extent not prohibited by applicable law, if an employee is an officer, or, if applicable, has otherwise been designated by the Board of the Company as an Executive Officer, the Board may seek reimbursement of any payment made to such employee in respect of an Award in the event of a restatement of such Company’s (or any of its subsidiaries’) financial results (occurring due to material noncompliance with any financial reporting requirements under applicable securities laws) that reduced a previously granted payment made to such employee in respect of an Award. In that event, the Compensation Committee may, in its sole and absolute discretion, seek to recover the amount of any such payment made to the employee that exceeded the amount that would have been paid based on the restated financial results.

If the Company subsequently determines that it is required by law to apply a “clawback” or alternate recoupment provision to an Award, under the Dodd-Frank Wall Street Reform and Consumer Protection Act or otherwise, then such clawback or recoupment provision also shall apply to such Award, as if it had been included on the effective date of such Award.

To the extent not prohibited under applicable law, the Company (or any of its subsidiaries) (as applicable), in its sole and absolute discretion, will have the right to set off (or cause to be set off) any amounts otherwise due to employee from such Company or a subsidiary in satisfaction of any repayment obligation of such employee hereunder, provided that any such amounts are exempt from, or set off in a manner intended to comply with the requirements of Section 409A of the Internal Revenue Code of 1986, as amended.

For the avoidance of doubt, the Company’s and its subsidiaries’ rights under this Plan will apply to employees, without regard to whether any such employee is currently providing, or previously provided, services to the Company or its subsidiary as an employee.

“Cause” for purposes of any Award means such employee’s (i) refusal or neglect to perform substantially his or her employment-related duties or services, (ii) personal dishonesty, incompetence, willful misconduct or breach of fiduciary duty, (iii) indictment for, conviction of or entering a plea of guilty or *nolo contendere* to a crime constituting a felony or his or her willful violation of any applicable law (other than a traffic violation or other offense or violation outside of the course of employment or services to the Company or its affiliates which in no way adversely affects the Company and its affiliates or their reputation or the ability of the employee to perform his or her employment-related duties or services or to represent the Company or any affiliate of the Company that employs such employee or to which the employee performs services), (iv) failure to reasonably cooperate, following a request to do so by the Company, in any internal or governmental investigation of the Company or any of its affiliates or (v) material breach of any written covenant or agreement with the Company or any of its affiliates not to disclose any information pertaining to the Company or such affiliate or not to compete or interfere with the Company or such affiliate; provided that, in the case of any employee who, as of the date of determination, is party to an effective services, severance or employment agreement with the Company or any affiliate, “Cause” will have the meaning, if any, specified in such agreement.

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April 25, 2019

The Board of Directors of CVR Energy, Inc.

Dear Directors:

We are providing this letter solely for inclusion as an exhibit to CVR Energy, Inc. (the "Company") Form 10-Q filing pursuant to Item 601 of Regulation S-K.

As stated in Note 3 to the unaudited condensed consolidated financial statements included in the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019, the Company changed its accounting for the Petroleum Segment's turnaround activities from the direct expensing method to the deferral method. Note 3 also states management's belief that the newly adopted accounting principle is preferable in the circumstances because it increases consistency to its peer companies and better reflects the economic substance of the benefits earned from a turnaround.

With regard to the aforementioned accounting change, it should be understood that authoritative criteria have not been established for evaluating the preferability of one acceptable method of accounting over another acceptable method and, in expressing our concurrence below, we have relied on management's business planning and judgment and on management's determination that this change in accounting principle is preferable.

Based on our reading of management's stated reasons and justification for this change in accounting principle in the Form 10-Q, and our discussions with management as to their judgment about the relevant business planning factors relating to the change, we concur with management that the newly adopted method of accounting is preferable in the Company's circumstances.



We have not audited the application of the aforementioned accounting change to the financial statements included in Part I of the Company's Form 10-Q. We also have not audited any consolidated financial statements of the Company as of any date or for any period subsequent to December 31, 2018. Accordingly, we do not express an opinion on whether the accounting for the change in accounting principle has been properly applied or whether the aforementioned financial statements are fairly presented in conformity with accounting principles generally accepted in the United States of America.

Sincerely,

/s/ GRANT THORNTON LLP

Kansas City, Missouri

**Certification of President and Chief Executive Officer Pursuant to
Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934,
As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, David L. Lamp, certify that:

1. I have reviewed this report on Form 10-Q of CVR Energy, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ DAVID L. LAMP

David L. Lamp

*President and Chief Executive
Officer*

(Principal Executive Officer)

Date: April 25, 2019

**Certification of Executive Vice President and Chief Financial Officer Pursuant to
Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934,
As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Tracy D. Jackson, certify that:

1. I have reviewed this report on Form 10-Q of CVR Energy, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ TRACY D. JACKSON

Tracy D. Jackson

*Executive Vice President and Chief Financial Officer
(Principal Financial Officer)*

Date: April 25, 2019

**Certification of Chief Accounting Officer and Corporate Controller Pursuant to
Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934,
As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Matthew W. Bley, certify that:

1. I have reviewed this report on Form 10-Q of CVR Energy, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ MATTHEW W. BLEY

Matthew W. Bley
*Chief Accounting Officer and Corporate
Controller
(Principal Accounting Officer)*

Date: April 25, 2019

**Certification Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the filing of the Quarterly Report of CVR Energy, Inc., a Delaware corporation (the "Company"), on Form 10-Q for the fiscal quarter ended March 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company certify, pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of such officer's knowledge and belief:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

By: /s/ DAVID L. LAMP
David L. Lamp
President and Chief Executive Officer
(Principal Executive Officer)

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

By: /s/ MATTHEW W. BLEY
Matthew W. Bley
Chief Accounting Officer and Corporate Controller
(Principal Accounting Officer)

Dated: April 25, 2019