

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 June 30, 2018

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)

Delaware

(State or other jurisdiction of incorporation or organization)

2277 Plaza Drive, Suite 500

Sugar Land, Texas

(Address of principal executive offices)

61-1512186

(I.R.S. Employer Identification No.)

77479

(Zip Code)

(281) 207-3200

(Registrant's telephone number, including area code)

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post 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

(Do not check if a smaller reporting company)

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 86,831,050 shares of the registrant's common stock outstanding at July 24, 2018.

CVR ENERGY, INC. AND SUBSIDIARIES
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For The Quarter Ended June 30, 2018

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

CVR ENERGY, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS

	June 30, 2018	December 31, 2017
	(unaudited)	
	(in millions, except share data)	
ASSETS		
Current assets:		
Cash and cash equivalents (including \$286 and \$223, respectively, of consolidated variable interest entities ("VIEs"))	\$ 534	\$ 482
Accounts receivable of VIEs, net of allowance for doubtful accounts of \$1 at both periods	190	179
Due from parent	—	5
Inventories of VIEs	433	385
Prepaid expenses and other current assets (including \$42 and \$30, respectively, of VIEs)	54	43
Total current assets	1,211	1,094
Property, plant and equipment, net of accumulated depreciation (including \$2,478 and \$2,548, respectively, of VIEs)	2,494	2,572
Other long-term assets (including \$135 and \$137, respectively, of VIEs)	145	141
Total assets	\$ 3,850	\$ 3,807
LIABILITIES AND EQUITY		
Current liabilities:		
Note payable and capital lease obligations of VIEs	\$ 2	\$ 2
Accounts payable (including \$353 and \$329, respectively, of VIEs)	356	334
Due to parent	16	—
Other current liabilities (including \$130 and \$181, respectively, of VIEs)	217	208
Total current liabilities	591	544
Long-term liabilities:		
Long-term debt and capital lease obligations of VIEs, net of current portion	1,165	1,164
Deferred income taxes (including \$1 of VIEs for both periods)	394	386
Other long-term liabilities (including \$8 and \$4, respectively, of VIEs)	13	9
Total long-term liabilities	1,572	1,559
Commitments and contingencies		
Equity:		
CVR stockholders' equity:		
Common stock \$0.01 par value per share, 350,000,000 shares authorized, 86,929,660 shares issued	1	1
Additional paid-in-capital	1,197	1,197
Retained deficit	(313)	(277)
Treasury stock, 98,610 shares at cost	(2)	(2)
Total CVR stockholders' equity	883	919
Noncontrolling interest	804	785
Total equity	1,687	1,704
Total liabilities and equity	\$ 3,850	\$ 3,807

See accompanying notes to the condensed consolidated financial statements.

CVR ENERGY, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(unaudited)			
	(in millions, except per share data)			
Net sales	\$ 1,914	\$ 1,434	\$ 3,451	\$ 2,942
Operating costs and expenses:				
Cost of materials and other	1,570	1,229	2,809	2,450
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	141	124	273	262
Depreciation and amortization	52	52	102	100
Cost of sales	1,763	1,405	3,184	2,812
Selling, general and administrative expenses (exclusive of depreciation and amortization as reflected below)	32	25	55	55
Depreciation and amortization	3	2	6	5
Loss on asset disposals	5	1	5	1
Operating income	111	1	201	69
Interest expense, net	(27)	(27)	(53)	(54)
Gain on derivatives, net	10	—	70	12
Other income, net	2	—	3	—
Income (loss) before income tax expense	96	(26)	221	27
Income tax expense (benefit)	17	(7)	38	8
Net income (loss)	79	(19)	183	19
Less: Net income (loss) attributable to noncontrolling interest	28	(8)	66	7
Net income (loss) attributable to CVR Energy stockholders	\$ 51	\$ (11)	\$ 117	\$ 12
Basic and diluted earnings per share	\$ 0.59	\$ (0.12)	\$ 1.35	\$ 0.13
Dividends declared per share	\$ 0.75	\$ 0.50	\$ 1.25	\$ 1.00
Weighted-average common shares outstanding:				
Basic and diluted	86.8	86.8	86.8	86.8

See accompanying notes to the condensed consolidated financial statements.

CVR ENERGY, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

	Six Months Ended June 30,	
	2018	2017
	(unaudited)	
	(in millions)	
Cash flows from operating activities:		
Net income	\$ 183	\$ 19
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	108	105
Deferred income taxes expense	8	7
Share-based compensation	12	7
Other non-cash items	5	4
Changes in assets and liabilities:		
Current assets and liabilities	(92)	100
Non-current assets and liabilities	5	—
Net cash provided by operating activities	<u>229</u>	<u>242</u>
Cash flows from investing activities:		
Capital expenditures	(42)	(58)
Other investing activities	1	(1)
Net cash used in investing activities	<u>(41)</u>	<u>(59)</u>
Cash flows from financing activities:		
Dividends to CVR Energy's stockholders	(87)	(87)
Distributions to CVR Refining's noncontrolling interest holders	(48)	—
Distributions to CVR Partners' noncontrolling interest holders	—	(2)
Other financing activities	(1)	—
Net cash used in financing activities	<u>(136)</u>	<u>(89)</u>
Net increase in cash and cash equivalents	52	94
Cash and cash equivalents, beginning of period	482	736
Cash and cash equivalents, end of period	<u>\$ 534</u>	<u>\$ 830</u>

See accompanying notes to the condensed consolidated financial statements.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

June 30, 2018

(unaudited)

(1) Organization and Basis of Presentation

Organization

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 its holdings in CVR Refining, LP ("CVR Refining") and CVR Partners, LP ("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 and markets 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. 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."

As of June 30, 2018, Icahn Enterprises L.P. ("IEP") and its affiliates owned approximately 82% of the Company's outstanding shares.

On May 28, 2018, the board of directors of the Company declared a cash dividend for the second quarter of 2018 to the Company's stockholders of \$0.75 per share, or \$65 million in the aggregate. The dividend will be paid on August 13, 2018 to stockholders of record at the close of business on August 6, 2018. IEP will receive \$53 million in respect of its 82% ownership interest in the Company's shares.

On June 18, 2018, CVR Energy commenced an offer to exchange up to 37,154,236 common units of CVR Refining for shares of CVR Energy common stock at an exchange ratio of one common unit for 0.6335 shares of CVR Energy common stock. The offer and withdrawal rights will expire on July 27, 2018 at 5:00 pm, unless the offer is extended by CVR Energy.

CVR Refining, LP

As of June 30, 2018, public security holders held approximately 34% of CVR Refining's outstanding common units (including units owned by affiliates of IEP, representing approximately 3.9% of CVR Refining's outstanding common units), and CVR Refining Holdings, LLC ("CVR Refining Holdings"), a wholly owned subsidiary of CVR Energy, held approximately 66% of CVR Refining's outstanding common units. In addition, CVR Refining Holdings owns 100% of CVR Refining's general partner, CVR Refining 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 Refining.

On July 25, 2018, the board of directors of CVR Refining's general partner declared a cash distribution for the second quarter of 2018 to CVR Refining's unitholders of \$0.66 per common unit, or \$97 million in aggregate. The cash distribution will be paid on August 13, 2018 to unitholders of record at the close of business on August 6, 2018. The Company will receive \$64 million in respect of its CVR Refining common units.

CVR Partners, LP

As of June 30, 2018, public security holders held approximately 66% of CVR Partner's outstanding common units, and Coffeyville Resources, LLC ("CRLLC"), a wholly-owned subsidiary of CVR Energy, held approximately 34% of CVR Refining's outstanding common units. In addition, CRLLC owns 100% of CVR Partner's 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.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

June 30, 2018

(unaudited)

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, 2017 audited consolidated financial statements and notes thereto included in CVR Energy's Annual Report on Form 10-K for the year ended December 31, 2017, which was filed with the SEC on February 26, 2018 (the "2017 Form 10-K"). Our condensed consolidated financial statements include the consolidated results of CVR Refining and CVR Partners, which are defined as variable interest entities.

In the opinion of the Company's management, the accompanying condensed consolidated financial statements reflect all adjustments (consisting only of normal recurring adjustments) that are necessary to fairly present the financial position of the Company as of June 30, 2018 and December 31, 2017, the results of operations of the Company for the three and six month periods ended June 30, 2018 and 2017 and the cash flows of the Company for the six month periods ended June 30, 2018 and 2017. Certain information has been reclassified to present historical information in a manner consistent 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, 2018 or any other interim or annual period.

(2) Recent Accounting Pronouncements

Adoption of New Revenue Standard

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

Impact on Financial Statements

The Company identified presentation changes associated with contracts requiring customer prepayment prior to delivery and the need to gross up certain fees collected from customers. Prior to adoption of ASC 606, deferred revenue was recorded by CVR Partners upon customer prepayment. Under the new revenue standard, a receivable and associated 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. The adoption of ASC 606 resulted in a \$21 million increase to deferred revenue and accounts receivable as of January 1, 2018. After the effect of adoption of the new revenue standard, deferred revenue and accounts receivable of CVR Partners were \$34 million and \$31 million, respectively, as of January 1, 2018. Additionally, fees collected from certain customers were previously recorded as a reduction to cost of materials and other. The particular fee, the Oil Spill Liability Tax, relates to taxes imposed on refineries as part of the crude oil procurement process, is charged to certain of CVR Refining's customers on product sales and is required under the new standard to be included in the transaction price. The impact of the change in presentation was an increase of \$1 million to net sales and cost of materials and other for the three and six months ended June 30, 2018.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
June 30, 2018
(unaudited)

The following tables display the effect of the changes to the Condensed Consolidated Balance Sheet as of June 30, 2018 for the adoption of ASC 606. The Company's Condensed Consolidated Statement of Cash Flows was not impacted due to the adoption of ASC 606 for the three and six months ended June 30, 2018.

Balance Sheet	June 30, 2018		
	As Reported	Balances Without Adoption of ASC 606	Effect of Change
	(in millions)		
<u>Assets</u>			
Accounts Receivable	\$ 190	\$ 180	\$ 10
<u>Liabilities</u>			
Deferred Revenue	\$ 11	\$ 1	\$ 10

New Accounting Standards Issued But Not Yet Implemented

In February 2016, the FASB issued ASU No. 2016-02, "Leases" ("ASU 2016-02"), creating a new topic, FASB ASC Topic 842, "Leases", which supersedes lease requirements in FASB ASC Topic 840, "Leases". The new standard revises accounting for operating leases by a lessee, among other changes, and requires a lessee to recognize a liability related to future lease payments and an asset representing its right to use the underlying asset for the lease term in the balance sheet. Quantitative and qualitative disclosures, including disclosures regarding significant judgments made by management, will be required. The standard is effective for the first interim and annual periods beginning after December 15, 2018, with early adoption permitted. At adoption, ASU 2016-02 will be applied using the modified retrospective application method and allows for certain practical expedients. The Company has begun its assessment and implementation plan for its planned adoption effective January 1, 2019. The Company expects the impact of the new lease standard to be material with respect to its balance sheet and further expect impacts to disclosures and changes in internal lease accounting processes.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

June 30, 2018

(unaudited)

(3) 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.

	Three Months Ended June 30, 2018			
	Petroleum	Nitrogen Fertilizer	Other / Eliminations	Consolidated
	(in millions)			
Major Product				
Gasoline	\$ 896	\$ —	\$ —	\$ 896
Distillates (a)	832	—	—	832
Ammonia	—	28	—	28
UAN	—	51	—	51
Urea products	—	5	—	5
Freight revenue	6	7	—	13
Other (b)	89	2	(3)	88
Revenue from product sales	1,823	93	(3)	1,913
Other revenue (c)	1	—	—	1
Total revenue	<u>\$ 1,824</u>	<u>\$ 93</u>	<u>\$ (3)</u>	<u>\$ 1,914</u>

	Six Months Ended June 30, 2018			
	Petroleum	Nitrogen Fertilizer	Other / Eliminations	Consolidated
	(in millions)			
Major Product				
Gasoline	\$ 1,608	\$ —	\$ —	\$ 1,608
Distillates (a)	1,484	—	—	1,484
Ammonia	—	40	—	40
UAN	—	104	—	104
Urea products	—	10	—	10
Freight revenue	11	15	—	26
Other (b)	176	4	(4)	176
Revenue from product sales	3,279	173	(4)	3,448
Other revenue (c)	3	—	—	3
Total revenue	<u>\$ 3,282</u>	<u>\$ 173</u>	<u>\$ (4)</u>	<u>\$ 3,451</u>

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

(b) Other product sales primarily include crude oil, feedstocks and asphalt sales attributable to the petroleum segment and nitric acid and carbon dioxide sales attributable to the nitrogen fertilizer segment. Feedstocks are petroleum products, such as crude oil and natural gas liquids, that are processed and blended into refined products, such as gasoline, diesel fuel and jet fuel, during the refining process.

(c) Other revenue consists primarily of Cushing, OK storage tank lease revenue.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

June 30, 2018

(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 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.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

June 30, 2018

(unaudited)

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, 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 certain 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 June 30, 2018, CVR Partners had approximately \$13 million of remaining performance obligations for contracts with an original expected duration of more than one year. CVR Partners expects to recognize approximately 56% of these performance obligations as revenue by the end of 2019, an additional 22% by 2020 and the remaining balance thereafter. CVR Partners has elected to not disclose the amount of transaction price allocated to remaining performance obligations for contracts with an original expected duration of less than one year. CVR Partners has elected to not disclose variable consideration allocated to wholly unsatisfied performance obligations that are based on market prices that have not yet been determined.

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 six months ended June 30, 2018 is presented below:

	<u>Six Months Ended June 30,</u>
	<u>(in millions)</u>
Balance at January 1, 2018	\$ 34
Add:	
New prepay contracts entered into during the period	14
Less:	
Revenue recognized that was included in the contract liability balance at the beginning of the period	32
Revenue recognized related to contracts entered into during the period	5
Other changes	—
Balance at June 30, 2018	<u>\$ 11</u>

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

June 30, 2018

(unaudited)

(4) Share-Based Compensation

There have been no material new awards or changes in existing awards during 2018. A summary of share-based compensation expense during the three and six months ended June 30, 2018 and 2017 are presented below:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
(in millions)				
CVR Energy LTIP				
Performance Unit Award	\$ 1	\$ 1	\$ 2	\$ 2
CVR Partners LTIP				
Phantom Units Award	1	—	1	—
CVR Refining LTIP				
Phantom Units Award	6	1	7	2
Incentive Unit Awards	3	1	2	3
Total Share-Based Compensation Expense	<u>\$ 11</u>	<u>\$ 3</u>	<u>\$ 12</u>	<u>\$ 7</u>

(5) Inventories

	June 30, 2018	December 31, 2017
(in millions)		
Raw materials and precious metals	\$ 144	\$ 114
In-process inventories	29	22
Finished goods	185	172
Parts and supplies	75	77
Total Inventories	<u>\$ 433</u>	<u>\$ 385</u>

(6) Property, Plant and Equipment

	June 30, 2018	December 31, 2017
(in millions)		
Land and improvements	\$ 44	\$ 48
Buildings	82	83
Machinery and equipment	3,750	3,734
Other	150	138
	<u>4,026</u>	<u>4,003</u>
Less: Accumulated depreciation	1,532	1,431
Total property, plant and equipment, net	<u>\$ 2,494</u>	<u>\$ 2,572</u>

Capitalized interest recognized as a reduction in interest expense was nominal for the three and six months ended June 30, 2018 and 2017.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
June 30, 2018
(unaudited)

(7) Long-Term Debt
Debt Balance, Net of Current Maturities and Unamortized Issuance Costs

	June 30, 2018	December 31, 2017
	(in millions)	
6.5% Senior Notes due 2022 (a)	\$ 500	\$ 500
9.25% Senior Secured Notes due 2023 (b)	645	645
6.5% Senior Notes due 2021 (b)	2	2
Capital lease obligations	44	45
Total long-term debt, before debt issuance costs, discount and current portion of capital lease obligations	1,191	1,192
Less:		
Unamortized debt issuance cost and debt discount	(24)	(26)
Current portion of capital lease obligations	(2)	(2)
Long-term debt, net of current portion	\$ 1,165	\$ 1,164

(a) The estimated fair value of total long-term debt outstanding was approximately \$510 million as of June 30, 2018.

(b) The estimated fair value of total long-term debt outstanding was approximately \$667 million as of June 30, 2018.

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

(c) Loans under the asset based credit facility initially bear interest at an annual rate equal to (i) 1.50% plus LIBOR or (ii) 0.50% plus a base rate, subject to quarterly excess availability.

(d) Loans under the asset based 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.

The Company is in compliance with all covenants of the ABL credit facilities and the senior notes as of June 30, 2018.

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(8) Supplemental Cash Flow Information

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

	Six Months Ended June 30,	
	2018	2017
(in millions)		
Supplemental disclosures:		
Cash paid for income taxes, net of refunds	\$ 8	\$ 10
Cash paid for interest	52	53
Non-cash investing and financing activities:		
Construction in progress additions included in accounts payable	\$ 8	\$ 9
Change in accounts payable related to construction in progress additions	—	(7)
Landlord incentives for leasehold improvements	—	1
Dividend accrual	65	—

(9) Commitments and Contingencies

There have been no material changes from our commitments and contingencies outlined in our 2017 Form 10-K. In the ordinary course of business, we 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 we accrue liabilities for these matters if we have 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, we believe there would be no material impact on our consolidated financial statements.

Crude Oil Supply Agreement

On August 31, 2012, Coffeyville Resources Refining and Marketing, LLC ("CRRM"), a wholly-owned subsidiary of CVR Refining, and Vitol Inc. ("Vitol") entered into an Amended and Restated Crude Oil Supply Agreement (as amended, the "Vitol Agreement"). Under the Vitol Agreement, Vitol supplies the petroleum business with crude oil and intermediation logistics, which helps to reduce CVR Refining's inventory position and mitigate crude oil pricing risk. The Vitol Agreement will automatically renew 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 the expiration of any Renewal Term. The Vitol Agreement currently extends through December 31, 2019.

Renewable Fuel Standards

CVR Refining is subject to the Renewable Fuel Standard ("RFS") of the Environmental Protection Agency ("EPA"), which requires 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. Due to mandates in the RFS requiring increasing volumes of renewable fuels to replace petroleum products in the U.S. transportation fuel market, there may be a decrease in demand for petroleum products. CVR Refining is not able to blend the substantial majority of its transportation fuels and has to purchase RINs on the open market, as well as waiver credits for cellulosic biofuels from the EPA, in order to comply with the RFS.

The price of RINs has been extremely volatile over the last year. The cost of RINs 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 the petroleum business' petroleum products, as well as the fuel blending performed at its refineries and downstream terminals, all of which can vary significantly from period to period.

The net cost of RINs for the three months ended June 30, 2018 and 2017 was \$50 million and \$106 million, respectively. The net cost of RINs for the six months ended June 30, 2018 and 2017 was \$27 million and \$99 million, respectively. The net costs of RINs was a reduction to cost of materials and other in the Condensed Consolidated Statements of Operations. RINs expense includes the purchased cost of RINs, the impact of recognizing CVR Refining's uncommitted biofuel blending obligation at fair value based on market prices at each reporting date and is reduced by the valuation change of RINs purchases in excess of CVR Refining's RFS obligation as of the reporting date. During the three and six months ended June 30, 2018, the net cost of RINs was favorably impacted by a reduction in CVR Refining's RFS obligation and reduced market pricing. As of June 30, 2018 and December 31, 2017, CVR Refining's biofuel blending obligation was approximately \$16 million and \$28 million, respectively,

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which was recorded in other current liabilities on the Condensed Consolidated Balance Sheets. CVR Refining recorded a RINs asset within prepaid and other current assets in the Condensed Consolidated Balance Sheet of \$14 million, representing excess RINs primarily due to a reduction in its RFS obligation during the first quarter of 2018.

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 Renewable Fuel Standard ("RFS") and Mr. Icahn's role as an advisor to the President. CVR Energy is cooperating with the request and is providing 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.

Affiliate Pension Obligations

Mr. Carl C. Icahn, through certain affiliates, owns approximately 82% of the Company's capital stock. Applicable pension and tax laws make each member of a "controlled group" of entities, generally defined as entities in which there is at least an 80% common ownership interest, jointly and severally liable for certain pension plan obligations of any member of the controlled group. These pension obligations include ongoing contributions to fund the plan, as well as liability for any unfunded liabilities that may exist at the time the plan is terminated. In addition, the failure to pay these pension obligations when due may result in the creation of liens in favor of the pension plan or the Pension Benefit Guaranty Corporation ("PBGC") against the assets of each member of the controlled group.

As a result of the more than 80% ownership interest in CVR Energy by Mr. Icahn's affiliates, the Company is subject to the pension liabilities of all entities in which Mr. Icahn has a direct or indirect ownership interest of at least 80%. Two such entities, ACF Industries LLC ("ACF") and Federal-Mogul, are the sponsors of several pension plans. All the minimum funding requirements of the Code and the Employee Retirement Income Security Act of 1974, as amended by the Pension Protection Act of 2006, for these plans have been met as of June 30, 2018 and December 31, 2017. If the ACF and Federal-Mogul plans were voluntarily terminated, they would be collectively underfunded by approximately \$435 million and \$424 million as of June 30, 2018 and December 31, 2017, respectively. These results are based on the most recent information provided by Mr. Icahn's affiliates based on information from the plans' actuaries. These liabilities could increase or decrease, depending on a number of factors, including future changes in benefits, investment returns, and the assumptions used to calculate the liability. As members of the controlled group, CVR Energy would be liable for any failure of ACF and Federal-Mogul to make ongoing pension contributions or to pay the unfunded liabilities upon a termination of their respective pension plans. In addition, other entities now or in the future within the controlled group that includes CVR Energy may have pension plan obligations that are, or may become, underfunded, and the Company would be liable for any failure of such entities to make ongoing pension contributions or to pay the unfunded liabilities upon a termination of such plans. The current underfunded status of the ACF and Federal-Mogul pension plans requires such entities to notify the PBGC of certain "reportable events," such as if CVR Energy were to cease to be a member of the controlled group, or if CVR Energy makes certain extraordinary dividends or stock redemptions. The obligation to report could cause the Company to seek to delay or reconsider the occurrence of such reportable events. Based on the contingent nature of potential exposure related to these affiliate pension obligations, no liability has been recorded in the condensed consolidated financial statements.

(10) Fair Value Measurements

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.

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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)

The following tables set forth the assets and liabilities measured at fair value on a recurring basis, by input level, as of June 30, 2018 and December 31, 2017:

<u>Location and Description</u>	June 30, 2018			
	Level 1	Level 2	Level 3	Total
	(in millions)			
Cash equivalents	\$ 50	\$ —	\$ —	\$ 50
Other current assets (investments)	—	—	—	—
Other current assets (commodity derivatives)	—	1	—	1
Total Assets	<u>\$ 50</u>	<u>\$ 1</u>	<u>\$ —</u>	<u>\$ 51</u>
Other current liabilities (commodity derivatives)	\$ —	\$ (27)	\$ —	\$ (27)
Other current liabilities (biofuel blending obligation)	—	(11)	—	(11)
Total Liabilities	<u>\$ —</u>	<u>\$ (38)</u>	<u>\$ —</u>	<u>\$ (38)</u>

<u>Location and Description</u>	December 31, 2017			
	Level 1	Level 2	Level 3	Total
	(in millions)			
Cash equivalents	\$ 15	\$ —	\$ —	\$ 15
Other current assets (investments)	—	—	—	—
Total Assets	<u>\$ 15</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 15</u>
Other current liabilities (commodity derivatives)	\$ —	\$ (64)	\$ —	\$ (64)
Other long-term liabilities (biofuel blending obligation)	—	(1)	—	(1)
Total Liabilities	<u>\$ —</u>	<u>\$ (65)</u>	<u>\$ —</u>	<u>\$ (65)</u>

As of June 30, 2018 and December 31, 2017, 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 the uncommitted biofuel blending obligation. Additionally, the fair value of the Company's debt issuances is disclosed in Note 7 ("Long-Term Debt").

CVR Refining's commodity derivative contracts and the uncommitted biofuel blending 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 and liabilities between any of the above levels during the six months ended June 30, 2018.

(11) Derivative Financial Instruments

CVR Refining and CVR Partners 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, CVR Refining from time to time enters into various commodity derivative transactions. CVR Refining does not apply hedge accounting with respect to derivative instruments held. Gains or losses related to the change in fair value and periodic settlements of these derivative instruments are classified as gain (loss) on derivatives, net in the Condensed Consolidated Statements of Operations.

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CVR Refining has adopted accounting standards which impose extensive record-keeping requirements in order to designate a derivative financial instrument as a hedge. CVR Refining 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.

CVR Refining enters into commodity swap contracts in order to fix the margin on a portion of future production. Additionally, CVR Refining may enter into price and basis swaps in order to fix the price on a portion of its commodity purchases and product sales. The physical volumes are not exchanged and these contracts are net settled with cash. The contract fair value of the commodity swaps is reflected on the Condensed Consolidated Balance Sheets with changes in fair value currently recognized in the Condensed Consolidated Statements of Operations. Quoted prices for similar assets or liabilities in active markets (Level 2) are considered to determine the fair values for the purpose of marking to market the hedging instruments at each period end. A change of \$1.00 per barrel in the fair value of the benchmark crude or product basis would result in an increase or decrease in the related fair value of the commodity instruments and forward purchase and sale commitments of \$2 million.

Gain (Loss) on Derivatives

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in millions)			
Realized gain on commodity derivatives	\$ 19	\$ —	\$ 33	\$ 1
Realized loss on margin account	(2)	—	(2)	—
Total realized gain on derivatives, net	\$ 17	\$ —	\$ 31	\$ 1

Open Commodity Derivative Instruments

	June 30, 2018	December 31, 2017
	(in millions of barrels)	
Commodity Swap Instruments:		
2-1-1 Crack spreads	—	7
Distillate Crack spreads	—	4
Gasoline Crack spreads	—	4
Purchase and Sale Commitments:		
Canadian crude oil	4	6

Fair Value of Commodity Derivatives

	June 30, 2018	December 31, 2017
	(in millions)	
Net unrealized gain (loss) on outstanding commodity derivative contracts	\$ (26)	\$ (64)

Offsetting Assets and Liabilities

The commodity swap agreements discussed above include multiple derivative positions with a number of counterparties for which CVR Refining has entered into agreements governing the nature of the derivative transactions. Each of the counterparty agreements provides for the right to setoff each individual derivative position to arrive at the net receivable due from the counterparty or payable owed by CVR Refining. As a result of the right to setoff, CVR Refining's recognized assets and liabilities associated with the outstanding commodity swap derivative positions have been presented net in the Condensed Consolidated Balance Sheets. The tables below outline the gross amounts of the recognized assets and liabilities and the gross amounts offset in the Condensed Consolidated Balance Sheets for the various types of open derivative positions at CVR Refining.

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The offsetting assets and liabilities for CVR Refining's derivatives as of June 30, 2018 and December 31, 2017 are recorded as current assets and current liabilities in prepaid expenses and other current assets and accrued expenses and other current liabilities, respectively, in the Condensed Consolidated Balance Sheets as follows:

<u>Description</u>	As of June 30, 2018				
	Gross Current Assets	Gross Amounts Offset	Net Current Assets Presented	Cash Collateral Not Offset	Net Amount
	(in millions)				
Commodity Derivatives	\$ 6	\$ (5)	\$ 1	\$ —	\$ 1
Total	\$ 6	\$ (5)	\$ 1	\$ —	\$ 1

<u>Description</u>	As of June 30, 2018				
	Gross Current Liabilities	Gross Amounts Offset	Net Current Liabilities Presented	Cash Collateral Not Offset	Net Amount
	(in millions)				
Commodity Derivatives	\$ 32	\$ (5)	\$ 27	\$ —	\$ 27
Total	\$ 32	\$ (5)	\$ 27	\$ —	\$ 27

<u>Description</u>	As of December 31, 2017				
	Gross Current Assets	Gross Amounts Offset	Net Current Assets Presented	Cash Collateral Not Offset	Net Amount
	(in millions)				
Commodity Derivatives	\$ 7	\$ (7)	\$ —	\$ —	\$ —
Total	\$ 7	\$ (7)	\$ —	\$ —	\$ —

<u>Description</u>	As of December 31, 2017				
	Gross Current Liabilities	Gross Amounts Offset	Net Current Liabilities Presented	Cash Collateral Not Offset	Net Amount
	(in millions)				
Commodity Derivatives	\$ 71	\$ (7)	\$ 64	\$ —	\$ 64
Total	\$ 71	\$ (7)	\$ 64	\$ —	\$ 64

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(12) 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:

	December 31, 2017	March 31, 2018		Total Dividends Paid in 2018
	(in millions, except per unit data)			
Amount paid to IEP	\$ 36	\$ 36	\$ 36	\$ 72
Amount paid to public stockholders	7	8	8	15
Total amount paid	<u>\$ 43</u>	<u>\$ 44</u>	<u>\$ 44</u>	<u>\$ 87</u>
Per common share	\$ 0.50	\$ 0.50	\$ 0.50	\$ 1.00
Shares outstanding	86.8	86.8	86.8	

There have been no new related party agreements entered into during 2018 or changes to existing related party agreements disclosed in the 2017 Form 10-K. Activity associated with the Company's related party arrangements for the three and six month periods ending June 30, 2018 and 2017 is summarized below:

Expenses from related parties

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in millions)			

Payments made

Tax Allocation Agreement:

American Entertainment Properties Corporation	\$ 8	\$ 10	\$ 8	\$ 10
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Amounts due to/from related parties

	June 30, 2018	December 31, 2017
	(in millions)	

Accounts Receivable (Payable)

Tax Allocation Agreement:

American Entertainment Properties Corporation ("AEPC")	\$ (16)	\$ 5
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Tax Allocation Agreement

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

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(13) 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 segment reflects intercompany eliminations, corporate cash and cash equivalents, income tax activities and other corporate activities that are not allocated to the operating segments.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in millions)			
Net sales				
Petroleum	\$ 1,824	\$ 1,338	\$ 3,282	\$ 2,762
Nitrogen Fertilizer	93	98	173	183
Other	(3)	(2)	(4)	(3)
Total	<u>\$ 1,914</u>	<u>\$ 1,434</u>	<u>\$ 3,451</u>	<u>\$ 2,942</u>
Operating income (loss)				
Petroleum	\$ 117	\$ (7)	\$ 214	\$ 59
Nitrogen Fertilizer	—	12	(4)	18
Other	(6)	(4)	(9)	(8)
Total operating income	111	1	201	69
Interest expense, net	(27)	(27)	(53)	(54)
Gain on derivatives, net	10	—	70	12
Other income, net	2	—	3	0
Earnings before income taxes	<u>\$ 96</u>	<u>\$ (26)</u>	<u>\$ 221</u>	<u>\$ 27</u>
Depreciation and amortization				
Petroleum	\$ 33	\$ 32	\$ 67	\$ 66
Nitrogen Fertilizer	20	20	37	35
Other	2	2	4	4
Total	<u>\$ 55</u>	<u>\$ 54</u>	<u>\$ 108</u>	<u>\$ 105</u>
Capital expenditures				
Petroleum	\$ 16	\$ 28	\$ 32	\$ 48
Nitrogen Fertilizer	6	4	9	9
Other	—	1	1	1
Total	<u>\$ 22</u>	<u>\$ 33</u>	<u>\$ 42</u>	<u>\$ 58</u>

The following table summarizes total assets by segment:

	As of June 30, 2018		As of December 31, 2017	
	(in millions)			
Total assets				
Petroleum	\$	2,366	\$	2,270
Nitrogen Fertilizer		1,200		1,234
Other		284		303
Total	<u>\$</u>	<u>3,850</u>	<u>\$</u>	<u>3,807</u>

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, 2017 filed with the Securities and Exchange Commission ("SEC") on February 26, 2018 (the "2017 Form 10-K"). Results of operations and cash flows for the three and six months ended June 30, 2018 are not necessarily indicative of results to be attained for any other period. Refer to the section outlined "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 June 30, 2018, we owned the general partner and approximately 66% and 34% respectively, of the outstanding common units representing limited partner interests in each of CVR Refining and CVR Partners. As of June 30, 2018, Icahn Enterprises L.P. and its affiliates owned approximately 82% of our outstanding common stock.

On June 18, 2018, CVR Energy commenced an offer to exchange up to 37,154,236 common units of CVR Refining for shares of CVR Energy common stock at an exchange ratio of one common unit for 0.6335 shares of CVR Energy common stock. The offer and withdrawal rights will expire on July 27, 2018 at 5:00 pm, unless the offer is extended by CVR Energy.

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.

Major Influences on Results of Operations

Petroleum Business

The earnings and cash flows for the petroleum business 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 petroleum products, such as gasoline, diesel fuel and jet fuel, that are produced by a refinery ("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 business' 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 business applies first-in, first-out ("FIFO") 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 on-hand inventory. The effect of changes in crude oil prices on the petroleum business' results of operations is influenced by the rate at which the prices 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, 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 Renewable Fuel Standard ("RFS") of the Environmental Protection Agency ("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. The cost of RINs 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, we currently estimate that the net cost of RINs will be approximately \$60 million for the year ending December 31, 2018.

The petroleum business' refineries generally require a facility turnaround every four to five years. The length of the turnaround is contingent upon the scope of work to be completed. The next turnaround scheduled for the Wynnewood refinery is being performed as a two phase turnaround. The first phase of its current turnaround was completed in November 2017 at a total cost of approximately \$67 million. The second phase of the Wynnewood turnaround is expected to occur in the first half of 2019. Turnaround expenses associated with the second phase of the Wynnewood turnaround are estimated to be approximately \$25 million. In addition to the two phase turnaround, certain planned turnaround activities at Wynnewood were accelerated in the first quarter of 2017 on the hydrocracker unit for a catalyst change-out resulting in expense of approximately \$13 million. The next turnaround scheduled for the Coffeyville refinery is expected to be performed in the second half of 2020.

Nitrogen Fertilizer Business

In the nitrogen fertilizer business, earnings and cash flows from operations are primarily affected by the relationship between nitrogen fertilizer product prices, on-stream factors and 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.

Consistent, safe and reliable operations are critical to the financial performance and results of operations of CVR Partners. In addition, operations at the Linde air separation unit, which supplies oxygen, nitrogen and compressed dry air to the CVR Partners' nitrogen fertilizer manufacturing facility located in Coffeyville, Kansas ("Coffeyville Fertilizer Facility"), is critical to CVR Partners' financial performance and results of operations. Downtime at either of the facilities of CVR Partners or at the Linde facility may result in lost margin opportunity, increased maintenance expense and a temporary increase in working capital investment and related inventory position. Production levels in the first quarter of 2018 were negatively impacted by 12 days of unplanned downtime due to a boiler feed water coil leak at the CVR Partners' nitrogen fertilizer manufacturing facility located in East Dubuque, Illinois ("East Dubuque Facility"). The Linde air separation unit experienced a shut down during the second quarter of 2017. Following the Linde outage, the Coffeyville Fertilizer Facility UAN unit experienced a number of operational challenges, resulting in approximately 11 days of UAN downtime during the three months ended June 30, 2017.

Historically, the nitrogen fertilizer business facilities have each undergone a full facility turnaround approximately every two to three years. The Coffeyville Fertilizer Facility underwent a full facility turnaround in the second quarter of 2018, and the East Dubuque Facility underwent a full facility turnaround during the third quarter of 2017.

The largest raw material expense used in the production of ammonia at the East Dubuque Facility is natural gas, which is purchased from third parties. Pet coke, a coal-like substance that is produced during the refining process, is required to operate the Coffeyville Fertilizer Facility. The majority of pet coke is purchased from CVR Refining, typically at a discount when compared to pet coke purchased from third parties. The price and availability of natural gas and pet coke can significantly impact the profitability of CVR Partners.

Non-GAAP Measures

Our management uses certain non-GAAP performance measures to evaluate 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 performance and liquidity measures along with certain key operating metrics.

Performance and Liquidity Measures

We use the following performance and liquidity measures:

EBITDA and Adjusted EBITDA. EBITDA represents net income (loss) attributable to CVR Energy stockholders before consolidated (i) interest expense and other financing costs, net of interest income; (ii) income tax expense (benefit); and (iii) depreciation and amortization, less the portion of these adjustments attributable to noncontrolling interest. Adjusted EBITDA represents EBITDA adjusted for consolidated (i) FIFO impact (favorable) unfavorable; (ii) major turnaround expenses (that many of our competitors capitalize and thereby exclude from their measures of EBITDA and adjusted EBITDA); (iii) (gain) loss on derivatives, net; and (iv) current period settlements on derivative contracts. EBITDA and Adjusted EBITDA are not recognized terms under GAAP and should not be substituted for net income (loss) or cash flow from operations. We believe that EBITDA and Adjusted EBITDA enable investors to better understand and evaluate our ongoing operating results and allow for greater transparency in reviewing our overall financial, operational and economic performance. EBITDA and Adjusted EBITDA presented by other companies may not be comparable to our presentation, since each company may define these terms differently. EBITDA and Adjusted EBITDA represent EBITDA and Adjusted EBITDA that is attributable to CVR Energy stockholders.

Petroleum EBITDA. EBITDA is a performance measure representing net income (loss) before (i) interest expense and other financing costs, net of interest income, (ii) income tax expense and (iii) depreciation and amortization.

Petroleum Adjusted EBITDA. Adjusted EBITDA is a performance measure representing EBITDA adjusted for (i) (favorable) unfavorable FIFO impacts associated with our crude oil and refined product inventories, (ii) major turnaround expenses (that many of our competitors capitalize and thereby exclude from their measures of EBITDA and adjusted EBITDA), (iii) (gain) loss on derivatives, net and (iv) current period settlements on derivative contracts. Adjusted EBITDA represents the starting point for determining available cash for distribution. Refer to discussion below for the Refining margin, adjusted for FIFO impact non-GAAP measure for discussion of why management adjusted for the FIFO impact of our inventories. We exclude major turnaround expenses because these amounts are required expenditures for our refineries, are not closely related to current period operations, and many of our peer companies capitalize these amounts thereby excluding these amounts from their EBITDA-related measures. For derivatives, we adjust EBITDA to exclude the unrealized or non-cash portion of our derivative gain or loss from our results in order to arrive at our starting point for available cash for distribution.

Nitrogen EBITDA. Nitrogen Fertilizer EBITDA represents nitrogen fertilizer net loss adjusted for (i) interest (income) expense; (ii) income tax expense; and (iii) depreciation and amortization expense. Adjusted Nitrogen Fertilizer EBITDA represents Nitrogen Fertilizer EBITDA adjusted for (i) major turnaround expenses, when applicable; (ii) gain or loss on extinguishment of debt; and (iii) business interruption insurance recovery, when applicable. We present Adjusted Nitrogen Fertilizer EBITDA because we have found it helpful to consider an operating measure that excludes expenses, such as major turnaround expense, gain or loss on extinguishment of debt, loss on disposition of assets, and business interruption insurance recovery, relating to transactions not reflective of CVR Partner's core operations.

Nitrogen Adjusted EBITDA. We also present Adjusted Nitrogen Fertilizer EBITDA because it is the starting point for calculating CVR Partner's available cash for distribution. Adjusted Nitrogen Fertilizer EBITDA is not a recognized term under GAAP and should not be substituted for net loss as a measure of performance. We believe that Nitrogen Fertilizer EBITDA and Adjusted Nitrogen Fertilizer EBITDA enable investors and analysts to better understand CVR Partner's ability to make distributions to its common unitholders, help investors and analysts evaluate its ongoing operating results and allow for greater transparency in reviewing our overall financial, operational and economic performance by allowing investors to evaluate the same information used by management. Nitrogen Fertilizer EBITDA and Adjusted Nitrogen Fertilizer EBITDA presented by other companies may not be comparable to our presentation, since each company may define these terms differently.

Refining margin. This performance measure represents the difference between net sales and cost of materials and other as reported on our Condensed Consolidated Statements of Operations.

Refining margin, adjusted for FIFO impact. This performance measure represents our refining margin adjusted to exclude the impact of price changes in our crude oil and refined products inventories. Under our FIFO accounting method for crude oil and

refined products, changes in crude oil prices can cause fluctuations in the inventory valuation of our raw material, work in process and finished good inventories, thereby resulting in a favorable FIFO impact when crude oil prices increase and an unfavorable FIFO impact when crude oil prices decrease. In periods of significant price volatility, these price changes have a significant impact on the valuation on our inventories and thus our results.

Available cash for distribution. This performance and liquidity measure is equal to Adjusted EBITDA reduced for cash needed for (i) debt service, (ii) reserves for environmental and maintenance capital expenditures, (iii) reserves for major turnaround expenses and, to the extent applicable, (iv) reserves for future operating or capital needs that the board of directors of our general partner deems necessary or appropriate, if any. Available cash for distribution may be increased by the release of previously established cash reserves, if any, and other excess cash, at the discretion of the board of directors of our general partner.

Operating Metrics

During the second quarter of 2018, we changed the metrics discussed below from a crude oil throughput barrel basis to a total throughput barrel basis. Prior period information has been revised to conform to current presentation.

Refining margin and refining margin adjusted for FIFO impact per total throughput barrel. For both refining margin and refining margin adjusted for FIFO impact, we present these measures on a per total throughput barrel basis. In order to calculate these non-GAAP operating metrics, we utilize the total dollar figures for refining margin and refining margin adjusted for FIFO impact, as derived above and divide by the applicable number of total throughput barrels for the period.

Direct operating expenses, excluding major turnaround expenses, per total throughput barrel. We provide this performance measure to exclude major turnaround expenses from the reported amounts of direct operating expense during a given period. Major turnaround expenses are not directly correlated to our current period operations and thus excluding them provides investors and analysts with the current period cost, exclusive of depreciation and amortization, we incur to convert a barrel of crude oil into refined product.

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.

Results of Operations

The following tables summarize the financial data and key operating statistics for CVR and our two operating segments for the three and six months ended June 30, 2018 and 2017. The following data should be read in conjunction with our condensed consolidated financial statements and the notes thereto included elsewhere in this Report. All information in "Management's Discussion and Analysis of Financial Condition and Results of Operations," except for the balance sheet data as of December 31, 2017, is unaudited.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
(in millions, except per share data)				
Consolidated Statements of Operations Data				
Net sales	\$ 1,914	\$ 1,434	\$ 3,451	\$ 2,942
Cost of materials and other	1,570	1,229	2,809	2,450
Direct operating expenses(1)	141	124	273	262
Depreciation and amortization	52	52	102	100
Cost of sales	1,763	1,405	3,184	2,812
Selling, general and administrative expenses(1)	32	25	55	55
Depreciation and amortization	3	2	6	5
Loss on asset disposals	5	1	5	1
Operating income	111	1	201	69
Interest expense, net	(27)	(27)	(53)	(54)
Gain on derivatives, net	10	—	70	12
Other income, net	2	—	3	—
Income (loss) before income tax expense	96	(26)	221	27
Income tax expense (benefit)	17	(7)	38	8
Net income (loss)	79	(19)	183	19
Less: Net income (loss) attributable to noncontrolling interest	28	(8)	66	7
Net income (loss) attributable to CVR Energy stockholders	\$ 51	\$ (11)	\$ 117	\$ 12
Basic and diluted earnings per share	\$ 0.59	\$ (0.12)	\$ 1.35	\$ 0.13
Dividends declared per share	\$ 0.75	\$ 0.50	\$ 1.25	\$ 1.00
Adjusted EBITDA (2)	\$ 103	\$ 38	\$ 189	\$ 118
Weighted-average common shares outstanding:				
Basic and diluted	86.8	86.8	86.8	86.8

(1) Amounts are shown exclusive of depreciation and amortization.

(2) See "Non-GAAP Reconciliations" section below for further information regarding this non-GAAP measure.

Consolidated Results of Operations

Three Months Ended June 30, 2018 Compared to the Three Months Ended June 30, 2017 (Consolidated)

Net Sales. Consolidated net sales were \$1,914 million for the three months ended June 30, 2018 compared to \$1,434 million for the three months ended June 30, 2017. The increase in sales of \$480 million was largely the result of an increase in the petroleum segment's net sales of \$486 million due to higher sales prices for transportation fuels and by-products, partially offset by decreased sales volumes. The petroleum segment's average sales price per gallon for the three months ended June 30, 2018 of \$2.01 for gasoline and \$2.15 for distillates increased by 32.2% and 42.4%, respectively, as compared to the three months ended June 30, 2017. The nitrogen fertilizer segment's net sales decreased by approximately \$5 million primarily as a result of decreased UAN sales volumes. The decrease in UAN sales volumes was attributable to lower production at the Coffeyville Fertilizer Facility due to the downtime associated with the turnaround during the quarter and unplanned downtime.

Cost of Materials and Other. Consolidated cost of materials and other was \$1,570 million for the three months ended June 30, 2018, as compared to \$1,229 million for the three months ended June 30, 2017. The increase of \$341 million was related to an increase of \$345 million at the petroleum segment, partially offset by a \$3 million decrease at the nitrogen fertilizer segment. The petroleum business' consumed crude oil costs increased due to an increase in crude oil prices, partially offset by a decrease in throughput volumes of crude oil. The West Texas Intermediate ("WTI") benchmark crude price increased approximately 41.0% and the petroleum business' crude oil throughput volume decreased by approximately 3.7% for the three months ended June 30, 2018 as compared to the three months ended June 30, 2017. The nitrogen fertilizer segment's cost of material and other decreased primarily due to a \$2 million decrease in freight costs due to the decreased UAN sales volumes at the Coffeyville Fertilizer Facility in relation to the second quarter turnaround.

Selling, General and Administrative Expenses (Exclusive of Depreciation and Amortization). Consolidated selling, general and administrative expenses (exclusive of depreciation and amortization) were \$32 million for the three months ended June 30, 2018, as compared to \$25 million for the three months ended June 30, 2017. The increase of \$7 million was largely attributable to an increase in share-based compensation at the petroleum segment due to an increase in the market value of CVR Refining's common units and an increase in CVR Refining's labor expense due to increased headcount. An additional \$1 million of the increase was attributable to an increase in allocated CVR Energy shared services fees at the nitrogen fertilizer segment.

Loss on asset disposals. For the three months ended June 30, 2018, we recorded a \$5 million net loss on asset disposals related to the cancellation of certain incomplete, non-strategic capital projects of the petroleum business.

Gain on Derivatives, net. For the three months ended June 30, 2018, the petroleum segment recorded a \$10 million net gain on derivatives, as compared to no net gain on derivatives for the three months ended June 30, 2017. This change was primarily due to an increase in the volume of derivative positions in 2018 compared to the same period in 2017. Additionally, the market fluctuations associated with our derivative positions can materially impact our gain or loss on derivatives.

Income Tax Expense (Benefit). Income tax expense for the three months ended June 30, 2018 was \$17 million, or 17.7% of income (loss) before income taxes, as compared to an income tax benefit for the three months ended June 30, 2017 of \$7 million, or 25.5% of income (loss) before income taxes. The fluctuation in income tax expense (benefit) was due primarily to the change in pretax income (loss) from the three months ended June 30, 2017 to the three months ended June 30, 2018. In addition, the change in the effective tax rate was largely due to the change in the federal statutory tax rate from 35% in 2017 to 21% in 2018.

Six Months Ended June 30, 2018 Compared to the Six Months Ended June 30, 2017 (Consolidated)

Net Sales. Consolidated net sales were \$3,451 million for the six months ended June 30, 2018 compared to \$2,942 million for the six months ended June 30, 2017. The increase of \$509 million was largely the result of an increase in the petroleum segment's net sales of \$520 million due to higher sales prices for transportation fuels and by-products, partially offset by decreased sales volumes. The petroleum segment's average sales price per gallon for the six months ended June 30, 2018 of \$1.92 for gasoline and \$2.08 for distillates increased by 25.5% and 35.1%, respectively, as compared to the six months ended June 30, 2017. In addition, the nitrogen fertilizer segment's ammonia sales volumes decreased for the six months ended June 30, 2018 compared to the six months ended June 30, 2017 due primarily to less product available from lower inventory as of December 31, 2017 and downtime for the six months ended June 30, 2018.

Cost of Materials and Other. Consolidated cost of materials and other was \$2,809 million for the six months ended June 30, 2018, as compared to \$2,450 million for the six months ended June 30, 2017. The increase of \$359 million primarily resulted from an increase of \$362 million in the petroleum segment. The increase at the petroleum segment was primarily the result of increases in the cost of consumed crude oil and refined products purchased for resale partially offset by decreases in the cost of other feedstocks and RINs. The increase in consumed crude oil costs was due to an increase in crude oil prices, partially offset by a decrease in crude oil throughput volume. The WTI benchmark crude price increased approximately 31.1% and crude oil throughput volume decreased by approximately 10.4% for the six months ended June 30, 2018 as compared to the six months ended June 30, 2017 primarily to manage the fluid catalytic cracking unit ("FCCU") feedstock inventory during the FCCU outage at the Coffeyville refinery. The net cost of RINs was favorably impacted by a reduction in the petroleum segment's RFS obligation and reduced market pricing. The nitrogen fertilizer segment's cost of materials and other decreased \$2 million primarily due to a \$2 million decrease in natural gas costs driven by favorable natural gas pricing period over period.

Selling, General and Administrative Expenses (Exclusive of Depreciation and Amortization). Consolidated selling, general and administrative expenses (exclusive of depreciation and amortization) were \$55 million for the six months ended June 30, 2018, as compared to \$55 million for the six months ended June 30, 2017.

Loss on asset disposals. For the six months ended June 30, 2018, we recorded a \$5 million net loss on asset disposals related to the cancellation of certain incomplete, non-strategic capital projects of the petroleum business.

Gain on Derivatives, net. For the six months ended June 30, 2018, the petroleum segment recorded a \$70 million net gain on derivatives. This compares to a \$12 million net gain on derivatives for the six months ended June 30, 2017. This change was primarily due to an increase in the volume of derivative positions in 2018 compared to the same period in 2017. Additionally, the market fluctuations associated with our derivative positions can materially impact our gain or loss on derivatives.

Income Tax Expense (Benefit). Income tax expense for the six months ended June 30, 2018 was \$38 million, or 17.2% of income (loss) before income taxes, as compared to income tax expense for the six months ended June 30, 2017 of \$8 million, or 30.3% of income (loss) before income taxes. The fluctuation in income tax expense was due primarily to the change in pretax income from the six months ended June 30, 2017 to the six months ended June 30, 2018. In addition, the change in the effective tax rate was largely due to the change in the federal statutory tax rate from 35% in 2017 to 21% in 2018.

Petroleum Business Results of Operations

The petroleum business includes the operations of both the Coffeyville and Wynnewood refineries. The following tables provide an overview of the petroleum business' results of operations, relevant market indicators and its key operating statistics for the three and six months ended June 30, 2018 and 2017:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
(in millions)				
Petroleum Segment Summary Financial Results				
Net sales	\$ 1,824	\$ 1,338	\$ 3,282	\$ 2,762
Operating costs and expenses:				
Cost of materials and other	1,553	1,208	2,771	2,409
Direct operating expenses(1)	94	86	187	188
Depreciation and amortization	32	31	65	65
Cost of sales	1,679	1,325	3,023	2,662
Selling, general and administrative expenses(1)	22	19	38	40
Depreciation and amortization	1	1	2	1
Loss on asset disposals	5	—	5	—
Operating income (loss)	117	(7)	214	59
Interest expense, net	(11)	(12)	(22)	(23)
Gain on derivatives, net	10	—	70	12
Other income, net	2	—	3	—
Net income (loss)	\$ 118	\$ (19)	\$ 265	\$ 48
Gross profit	\$ 145	\$ 13	\$ 259	\$ 100
Refining margin(2)	\$ 271	\$ 130	\$ 511	\$ 353
Adjusted Petroleum EBITDA(2)	\$ 147	\$ 43	\$ 273	\$ 158

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
(dollars per barrel)				
Key Operating Statistics (per total throughput barrel)				
Gross profit	\$ 7.29	\$ 0.60	\$ 7.05	\$ 2.43
Refining margin (2)	\$ 13.71	\$ 6.45	\$ 13.93	\$ 8.64
FIFO impact, (favorable) unfavorable	(1.10)	0.76	(1.15)	0.39
Refining margin adjusted for FIFO impact (2)	12.61	7.21	12.78	9.03
Direct operating expenses(1)	4.76	4.27	5.10	4.62
Direct operating expenses excluding major turnaround expenses(1)(2)	4.76	4.13	5.10	4.23

(1) Amounts are shown exclusive of depreciation and amortization.

(2) See "Non-GAAP Reconciliations" section below for further information regarding these non-GAAP measures.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Market Indicators (dollars per barrel)				
West Texas Intermediate (WTI) NYMEX	\$ 67.91	\$ 48.15	\$ 65.46	\$ 49.95
Crude Oil Differentials:				
WTI less WTS (light/medium sour)	8.50	1.06	5.05	1.24
WTI less WCS (heavy sour)	18.02	10.00	21.81	11.88
WTI less Condensate	0.46	0.15	0.42	0.12
Midland Cushing Differential	8.12	0.83	4.34	0.41
NYMEX Crack Spreads:				
Gasoline	20.63	18.07	18.06	16.39
Heating Oil	22.22	15.11	21.36	15.32
NYMEX 2-1-1 Crack Spread	21.43	16.59	19.71	15.85
PADD II Group 3 Basis:				
Gasoline	(4.44)	(3.95)	(3.19)	(2.96)
Ultra Low Sulfur Diesel	(0.05)	(0.62)	(0.33)	(1.10)
PADD II Group 3 Product Crack Spread:				
Gasoline	16.19	14.12	14.87	13.42
Ultra Low Sulfur Diesel	22.17	14.49	21.03	14.23
PADD II Group 3 2-1-1	19.18	14.30	17.95	13.82

	Three Months Ended June 30,				Six Months Ended June 30,			
	2018		2017		2018		2017	
	%	%	%	%	%	%	%	
Total Refining Throughput and Production Data (bpd)								
Throughput:								
Condensate	9,127	4.2	1,258	0.6	15,560	7.7	4,363	1.9
Sweet	190,595	88.0	200,812	90.4	172,969	85.4	195,610	86.9
Heavy sour	6,249	2.9	11,771	5.3	3,385	1.7	14,130	6.3
Total crude oil throughput	205,971	95.1	213,841	96.3	191,914	94.8	214,103	95.1
All other feedstocks and blendstocks	10,694	4.9	8,113	3.7	10,681	5.2	11,161	4.9
Total throughput	216,665	100.0	221,954	100.0	202,595	100.0	225,264	100.0
Production:								
Gasoline	106,431	49.1	112,284	50.4	99,279	49.0	115,600	51.2
Distillate	94,784	43.7	96,578	43.4	86,870	42.9	93,260	41.3
Other (excluding internally produced fuel)	15,609	7.2	13,775	6.2	16,495	8.1	17,019	7.5
Total refining production (excluding internally produced fuel)	216,824	100.0	222,637	100.0	202,644	100.0	225,879	100.0

	Three Months Ended June 30,				Six Months Ended June 30,			
	2018		2017		2018		2017	
		%		%		%		%
<u>Coffeyville Refinery Throughput and Production Data (bpd)</u>								
Throughput:								
Condensate	1,547	1.1	1,258	0.9	9,586	8.0	4,363	3.1
Sweet	120,975	89.3	120,790	86.4	100,863	84.2	113,804	80.9
Heavy sour	6,249	4.6	11,771	8.4	3,385	2.8	14,130	10.0
Total crude oil throughput	128,771	95.0	133,819	95.7	113,834	95.0	132,297	94.0
All other feedstocks and blendstocks	6,671	5.0	6,077	4.3	6,022	5.0	8,482	6.0
Total throughput	135,442	100.0	139,896	100.0	119,856	100.0	140,779	100.0
Production:								
Gasoline	66,577	48.6	70,032	49.3	57,565	47.5	72,271	50.5
Distillate	59,797	43.7	59,703	42.1	52,064	42.9	59,573	41.6
Other (excluding internally produced fuel)	10,500	7.7	12,146	8.6	11,657	9.6	11,246	7.9
Total refining production (excluding internally produced fuel)	136,874	100.0	141,881	100.0	121,286	100.0	143,090	100.0

	Three Months Ended June 30,				Six Months Ended June 30,			
	2018		2017		2018		2017	
		%		%		%		%
<u>Wynnewood Refinery Throughput and Production Data (bpd)</u>								
Throughput:								
Condensate	7,580	9.3	—	—	5,974	7.2	—	—
Sweet	69,620	85.7	80,022	97.5	72,106	87.1	81,806	96.8
Total crude oil throughput	77,200	95.0	80,022	97.5	78,080	94.3	81,806	96.8
All other feedstocks and blendstocks	4,023	5.0	2,036	2.5	4,659	5.7	2,679	3.2
Total throughput	81,223	100.0	82,058	100.0	82,739	100.0	84,485	100.0
Production:								
Gasoline	39,854	49.8	42,252	52.3	41,714	51.3	43,329	52.3
Distillate	34,987	43.8	36,875	45.7	34,806	42.8	33,687	40.7
Other (excluding internally produced fuel)	5,109	6.4	1,629	2.0	4,838	5.9	5,773	7.0
Total refining production (excluding internally produced fuel)	79,950	100.0	80,756	100.0	81,358	100.0	82,789	100.0

Three Months Ended June 30, 2018 Compared to the Three Months Ended June 30, 2017 (Petroleum Business)

Refining Margin. For the three months ended June 30, 2018, the petroleum business refining margin was \$271 million, as compared to \$130 million for the three months ended June 30, 2017 primarily due to the higher crack spreads experienced in the second quarter of 2018 compared to the same period in 2017. Refining margin was positively impacted by an increase in net sales of \$486 million, or 36.3%, and was largely the result of higher sales prices for our transportation fuels and by-products, partially offset by a decrease in sales volumes. Overall sales volumes decreased approximately 2.5% for the three months ended June 30, 2018, as compared to the three months ended June 30, 2017. Refining margin was negatively impacted by an increase in cost of material and other of \$345 million, or 28.6%, and was primarily the result of increases in the cost of consumed crude oil, feedstocks, and refined products purchased for resale. The increase in consumed crude oil costs was due to an increase in crude oil prices, partially offset by a decrease in throughput volumes of crude oil. The WTI benchmark crude price increased approximately 41.0% and the petroleum business' crude oil throughput volume decreased by approximately 3.7% for the three months ended June 30, 2018 as compared to the three months ended June 30, 2017. The increase in cost of other feedstocks was primarily due to an increase in purchase prices of natural gas liquids ("NGL") for the three months ended June 30, 2018 as compared to the three months ended June 30, 2017. The increase in costs of refined products purchased for resale was due to increased volumes and higher prices for the three months ended June 30, 2018 as compared to the three months ended June 30, 2017. Under the FIFO method of accounting, changes in crude oil prices can also cause fluctuations in the inventory valuation of crude oil, work in process and finished goods, thereby resulting in a favorable or unfavorable FIFO inventory impact when crude oil prices increase or decrease. For the three months ended June 30, 2018, the petroleum business had a favorable FIFO inventory impact of \$22 million compared to an unfavorable FIFO inventory impact of \$15 million for the comparable period of 2017.

Refining margin per barrel of total throughput increased to \$13.71 for the three months ended June 30, 2018 from \$6.45 for the three months ended June 30, 2017 reflecting a stronger margin environment in 2018. Refining margin adjusted for FIFO impact was \$12.61 per total throughput barrel for the three months ended June 30, 2018, as compared to \$7.21 per total throughput barrel for the three months ended June 30, 2017. The NYMEX 2-1-1 crack spread for the three months ended June 30, 2018 was \$21.43 per barrel, an increase of approximately 29.2% over the NYMEX 2-1-1 crack spread of \$16.59 per barrel for the three months ended June 30, 2017. However, the Group 3 gasoline and distillate basis remained largely similar period over period.

Selling, General and Administrative Expenses (Exclusive of Depreciation and Amortization). Selling, general and administrative expenses (exclusive of depreciation and amortization) were \$22 million for the three months ended June 30, 2018 compared to \$19 million for the three months ended June 30, 2017. The increase of approximately \$3 million was primarily due to an increase in share-based compensation expense due to an increase in the market value of CVR Refining's common units and an increase in labor expense due to increased headcount.

Loss on asset disposals. For the three months ended June 30, 2018, the petroleum business recorded a \$5 million net loss on asset disposals related to the cancellation of certain incomplete, non-strategic capital projects.

Gain on derivatives, net. For the three months ended June 30, 2018, the petroleum business recorded a \$10 million net gain on derivatives, as compared to no net gain on derivatives for the three months ended June 30, 2017. This change was primarily due to an increase in the volume of derivative positions in 2018 compared to the same period in 2017. Additionally, the market fluctuations associated with our derivative positions can materially impact our gain or loss on derivatives.

Six Months Ended June 30, 2018 Compared to the Six Months Ended June 30, 2017 (Petroleum Business)

Refining Margin. For the six months ended June 30, 2018 the petroleum business refining margin was \$511 million, as compared to \$353 million for the six months ended June 30, 2017 primarily due to the higher crack spreads experienced in the second quarter of 2018 compared to the same period in 2017. Refining margin was positively impacted by an increase in sales of \$520 million, or 18.8%, which was largely the result of higher sales prices for our transportation fuels and by-products, partially offset by decreased sales volumes. Overall sales volumes decreased approximately 9.9% for the six months ended June 30, 2018, as compared to the six months ended June 30, 2017. Sales volumes for the six months ended June 30, 2018 were impacted by decreased production as a result of the fluid catalytic cracking unit ("FCCU") outage at the Coffeyville refinery for approximately 48 days during the first quarter of 2018. Refining margin was negatively impacted by an increase in cost of materials and other, of \$362 million, or 15.0%, which was primarily the result of increases in the cost of consumed crude oil and refined products purchased for resale partially offset by decreases in the cost of other feedstocks and RINs. The increase in consumed crude oil costs was due to an increase in crude oil prices, partially offset by a decrease in crude oil throughput volume. The WTI benchmark crude price for the six months ended June 30, 2018 increased approximately 31.1% over the comparable period. The petroleum business' crude oil throughput volume decreased by approximately 10.4% for the six months ended June 30, 2018 as compared to the six months ended June 30, 2017 primarily to manage FCCU feedstock inventory during the FCCU outage at the Coffeyville refinery. The increase in the costs of refined products purchased for resale was due to increased volumes of distillates and higher

prices for the six months ended June 30, 2018 as compared to the six months ended June 30, 2017. The decrease in the cost of other feedstocks was primarily due to a decrease in NGL volumes for the six months ended June 30, 2018 as compared to the six months ended June 30, 2017. Under the FIFO method of accounting, changes in crude oil prices can also cause fluctuations in the inventory valuation of petroleum business crude oil, work in process and finished goods, thereby resulting in a favorable or unfavorable FIFO inventory impact when crude oil prices increase or decrease. For the six months ended June 30, 2018, the petroleum business had a favorable FIFO inventory impact of \$42 million compared to an unfavorable FIFO inventory impact of \$16 million for the comparable period of 2017.

Refining Margin. Refining margin per barrel of total throughput increased to \$13.93 for the six months ended June 30, 2018 from \$8.64 for the six months ended June 30, 2017 reflecting a stronger margin environment in 2018. Refining margin adjusted for FIFO impact was \$12.78 per total throughput barrel for the six months ended June 30, 2018, as compared to \$9.03 per total throughput barrel for the six months ended June 30, 2017. NYMEX 2-1-1 crack spread for the six months ended June 30, 2018 was \$19.71 per barrel, an increase of approximately 24.4% over the NYMEX 2-1-1 crack spread of \$15.85 per barrel for the six months ended June 30, 2017. However, the Group 3 gasoline and distillate basis remained largely similar period over period.

Selling, General and Administrative Expenses (Exclusive of Depreciation and Amortization). Selling, general and administrative expenses (exclusive of depreciation and amortization) were \$38 million for the six months ended June 30, 2018 compared to \$40 million for the six months ended June 30, 2017. The decrease of approximately \$2 million was primarily due to a decrease in management services allocations partially offset by an increase in share-based compensation expense.

Loss on asset disposals. For the six months ended June 30, 2018, the petroleum business recorded a \$5 million net loss on asset disposals, related to the cancellation of certain incomplete, non-strategic capital projects.

Gain on derivatives, net. For the six months ended June 30, 2018, the petroleum business recorded a \$70 million net gain on derivatives, as compared to a \$12 million net gain on derivatives for the six months ended June 30, 2017. This change was primarily due to an increase in the volume of derivative positions in 2018 compared to the same period in 2017. Additionally, the market fluctuations associated with our derivative positions can materially impact our gain or loss on derivatives.

Nitrogen Fertilizer Business Results of Operations

The tables below provide an overview of the nitrogen fertilizer business' results of operations, relevant market indicators and key operating statistics for the three and six months ended June 30, 2018 and 2017.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in millions)			
<u>Nitrogen Fertilizer Business Financial Results</u>				
Net sales	\$ 93	\$ 98	\$ 173	\$ 183
Operating costs and expenses:				
Cost of materials and other	19	22	42	44
Direct operating expenses(1)	47	38	86	74
Depreciation and amortization	20	20	37	35
Cost of sales	86	80	165	153
Selling, general and administrative(1)	7	6	12	12
Operating income (loss)	—	12	(4)	18
Interest expense, net	(16)	(16)	(32)	(32)
Net loss	\$ (16)	\$ (4)	\$ (36)	\$ (14)
Adjusted Nitrogen Fertilizer EBITDA(2)	\$ 26	\$ 32	\$ 39	\$ 53

(1) Amounts are shown exclusive of depreciation and amortization.

(2) See "Non-GAAP Reconciliations" section below for further information regarding this non-GAAP measure.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Nitrogen Fertilizer Segment Key Operating Statistics:				
Sales (thousand tons):				
Ammonia	81.6	74.6	117.6	136.5
UAN	269.6	330.9	615	652.5
Product pricing at gate (dollars per ton)(1):				
Ammonia	\$ 348	\$ 333	\$ 340	\$ 322
UAN	\$ 191	\$ 174	\$ 169	\$ 167
Production volume (thousand tons):				
Ammonia (gross produced)(2)	173.7	215.3	372.8	434.5
Ammonia (net available for sale)(2)	65.5	77.5	124.4	157.5
UAN	240.9	313.8	580.2	655.7
Feedstock:				
Petroleum coke used in production (thousand tons)	89.8	124.0	208.0	256.6
Petroleum coke used in production (dollars per ton)	\$ 25	\$ 21	\$ 21	\$ 17
Natural gas used in production (thousands of MMBtu)(3)(4)	1,964.1	2,134.0	3,814.4	4,225.3
Natural gas used in production (dollars per MMBtu)(3)(4)	\$ 2.78	\$ 3.18	\$ 3	\$ 3.29
Natural gas in cost of materials and other (thousands of MMBtu)(3)(4)	2,571.4	2,487.4	3,829.1	3,963.4
Natural gas in cost of materials and other (dollars per MMBtu)(3)(4)	\$ 2.84	\$ 3.24	\$ 3.05	\$ 3.37
Coffeyville Fertilizer Facility on-stream factors(5):				
Gasification	72.8%	98.8%	86.3%	98.8%
Ammonia	70.2%	98.2%	84.9%	98.3%
UAN	67.0%	87.3%	83.0%	92.0%
East Dubuque Facility on-stream factors(6):				
Ammonia	93.3%	100.0%	90.0%	99.8%
UAN	93.6%	99.4%	90.3%	98.8%
Market Indicators:				
Ammonia — Southern Plains (dollars per ton)	\$ 343	\$ 316	\$ 362	\$ 352
Ammonia — Corn belt (dollars per ton) (7)	\$ 396	\$ 365	\$ 412	\$ 395
UAN — Corn belt (dollars per ton) (7)	\$ 211	\$ 196	\$ 211	\$ 205
Natural gas NYMEX (dollars per MMBtu)	\$ 2.83	\$ 3.14	\$ 2.84	\$ 3.10

- (1) Product pricing at gate, also referred to as netback, 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.
- (2) 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.
- (3) 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 expenses (exclusive of depreciation and amortization).
- (4) One million British thermal units ("MMBtu"): a measure of energy. One Btu of heat is required to raise the temperature of one pound of water one degree Fahrenheit.

- (5) On-stream factor is the total number of hours operated divided by the total number of hours in the reporting period and is included as a measure of operating efficiency.
- (6) The East Dubuque Facility is CVR Partners' nitrogen fertilizer manufacturing facility located in East Dubuque, Illinois.
- (7) The primary corn producing region of the United States, which includes Illinois, Indiana, Iowa, Minnesota, Missouri, Nebraska, Ohio and Wisconsin ("corn belt").

Three Months Ended June 30, 2018 Compared to the Three Months Ended June 30, 2017 (Nitrogen Fertilizer Business)

Net Sales. Nitrogen fertilizer business net sales were \$93 million for the three months ended June 30, 2018 compared to \$98 million for the three months ended June 30, 2017. For the three months ended June 30, 2018, UAN and ammonia made up \$57 million and \$29 million of CVR Partners' consolidated net sales, respectively, including freight. For the three months ended June 30, 2017, UAN and ammonia made up \$65 million and \$26 million of CVR Partners' consolidated net sales, respectively, including freight.

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 June 30, 2018 as compared to the three months ended June 30, 2017:

	Price Variance	Volume Variance
(in millions)		
UAN	\$ 4	\$ (12)
Ammonia	\$ 1	\$ 2

The decrease in UAN sales volumes for the three months ended June 30, 2018 compared to the three months ended June 30, 2017 was primarily attributable to lower production at the Coffeyville Fertilizer Facility due to the downtime associated with the turnaround during the quarter and unplanned downtime. The increase in UAN sales prices for the three months ended June 30, 2018 compared to the three months ended June 30, 2017 was primarily attributable to favorable market conditions.

Cost of Materials and Other. Nitrogen fertilizer business cost of materials and other for the three months ended June 30, 2018 was \$19 million compared to \$22 million for the three months ended June 30, 2017. The \$3 million decrease was primarily due to a \$2 million decrease in freight costs due to the decreased UAN sales volumes at the Coffeyville Fertilizer Facility in relation to the second quarter turnaround. The remaining decrease was primarily attributable to less variable costs incurred as a result of downtime.

Direct Operating Expenses (Exclusive of Depreciation and Amortization). Nitrogen fertilizer business direct operating expenses (exclusive of depreciation and amortization) for the three months ended June 30, 2018 were \$47 million as compared to \$38 million for the three months ended June 30, 2017. The \$9 million increase was primarily due to \$6 million in turnaround expenses at the Coffeyville Fertilizer Facility, a \$2 million increase in personnel costs attributable to higher workloads along with inventory overhead allocations during downtime and a \$2 million increase in repairs and maintenance also driven by the downtime experienced in the second quarter of 2018.

Selling, General and Administrative Expenses. Selling, general and administrative expenses were \$7 million for the three months ended June 30, 2018 and \$6 million for the three months ended June 30, 2017. The \$1 million increase was primarily due to an increase in allocated CVR Energy shared services fees.

Six Months Ended June 30, 2018 Compared to the Six Months Ended June 30, 2017 (Nitrogen Fertilizer Business)

Net Sales. Nitrogen fertilizer business net sales were \$173 million for the six months ended June 30, 2018 compared to \$183 million for the six months ended June 30, 2017. For the six months ended June 30, 2018, UAN and ammonia made up \$118 million and \$42 million of CVR Partner's consolidated net sales, respectively, including freight. For the six months ended June 30, 2017, UAN and ammonia made up \$123 million and \$45 million of CVR Partner's consolidated net sales, respectively, including freight.

The following table demonstrates the impact of changes in sales volumes and pricing for the primary components of net sales for the six months ended June 30, 2018 as compared to the six months ended June 30, 2017:

	Price Variance		Volume Variance	
	(in millions)			
UAN	\$	2	\$	(7)
Ammonia	\$	2	\$	(6)

The decrease in UAN sales volumes for the six months ended June 30, 2018 compared to the six months ended June 30, 2017 was primarily attributable to lower production resulting from planned and unplanned downtime during the six months ended June 30, 2018. The decrease in ammonia sales volumes for the six months ended June 30, 2018 compared to the six months ended June 30, 2017 was primarily attributable to less product available from lower inventory as of December 31, 2017 due to a strong Fall 2017 application as compared to December 31, 2016 and downtime for the six months ended June 30, 2018.

Cost of Materials and Other. Nitrogen fertilizer business cost of materials and other for the six months ended June 30, 2018 was \$42 million, compared to \$44 million for the six months ended June 30, 2017. The \$2 million decrease was primarily due to a decrease of a \$2 million decrease in natural gas costs driven by favorable natural gas pricing period over period.

Direct Operating Expenses (Exclusive of Depreciation and Amortization). Nitrogen fertilizer business direct operating expenses (exclusive of depreciation and amortization) for the six months ended June 30, 2018 were \$86 million as compared to \$74 million for the six months ended June 30, 2017. The \$12 million increase was primarily due to \$6 million incurred for the turnaround at the Coffeyville Fertilizer Facility, higher personnel costs of \$3 million attributable to higher workloads along with inventory overhead allocations during downtime, and higher repair and maintenance costs of \$2 million resulting from outages during the 2018 period. Additionally, the nitrogen fertilizer business experienced lower utility costs of \$1 million primarily associated with the 2018 downtime and lower natural gas prices.

Selling, General and Administrative Expenses. Selling, general and administrative expenses were consistent at \$12 million and \$12 million for the six months ended June 30, 2018 and June 30, 2017, respectively.

Non-GAAP Reconciliations

Reconciliation of Net Income (Loss) attributable to CVR Energy stockholders to EBITDA and Adjusted EBITDA

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in millions)			
Net income (loss) attributable to CVR Energy stockholders	\$ 51	\$ (11)	\$ 117	\$ 12
Add:				
Interest expense, net	27	27	53	54
Income tax expense (benefit)	17	(7)	38	8
Depreciation and amortization	55	54	108	105
Adjustments attributable to noncontrolling interest	(39)	(37)	(76)	(74)
EBITDA	111	26	240	105
Add:				
FIFO impact, (favorable) unfavorable(a)	(22)	15	(42)	16
Major turnaround expenses(b)	6	3	6	16
Gain on derivatives, net	(10)	—	(70)	(12)
Current period settlement on derivative contracts(c)	17	—	31	1
Adjustments attributable to noncontrolling interest	1	(6)	24	(8)
Adjusted EBITDA	\$ 103	\$ 38	\$ 189	\$ 118

Below is a reconciliation of net income (loss) for the petroleum segment to Petroleum EBITDA and Petroleum EBITDA to Adjusted Petroleum EBITDA for the three and six months ended June 30, 2018 and 2017:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in millions)			
Petroleum:				
Petroleum net income (loss)	\$ 118	\$ (19)	\$ 265	\$ 48
Add:				
Interest expense, net	11	12	22	23
Income tax expense	—	—	—	—
Depreciation and amortization	33	32	67	66
Petroleum EBITDA	162	25	354	137
Add:				
FIFO impact, (favorable) unfavorable(a)	(22)	15	(42)	16
Major turnaround expenses(b)	—	3	—	16
Gain on derivatives, net	(10)	—	(70)	(12)
Current period settlements on derivative contracts(c)	17	—	31	1
Adjusted Petroleum EBITDA	\$ 147	\$ 43	\$ 273	\$ 158

(a) 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 FIFO impact when crude oil prices increase and an unfavorable FIFO impact when crude oil prices decrease. The FIFO 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 FIFO impact per total throughput barrel, we utilize the total dollar figures for the FIFO impact and divide by the number of total throughput barrels for the period.

(b) Represents expense associated with major turnaround activities at the Wynnewood refinery during 2017.

(c) Represents the portion of gain on derivatives, net related to contracts that matured during the respective periods and settled with counterparties. There are no premiums paid or received at the inception of the derivative contracts and upon settlement, there is no cost recovery associated with these contracts.

Reconciliation of gross profit to Refining Margin, Refining Margin adjusted for FIFO Impact (in millions and on per total throughput barrel basis) and Direct operating expenses, excluding major turnaround expenses, per total throughput barrel.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in millions)			
Net sales	\$ 1,824	\$ 1,338	\$ 3,282	\$ 2,762
Cost of materials and other	1,553	1,208	2,771	2,409
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	94	86	187	188
Depreciation and amortization	32	31	65	65
Gross profit	145	13	259	100
Add:				
Direct operating expenses (exclusive of depreciation and amortization as reflected below)	94	86	187	188
Depreciation and amortization	32	31	65	65
Refining margin	271	130	511	353
FIFO impact, (favorable) unfavorable	(22)	15	(42)	16
Refining margin adjusted for FIFO impact	\$ 249	\$ 145	\$ 469	\$ 369

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Total throughput barrels per day	216,665	221,954	202,595	225,264
Days in the period	91	91	181	181
Total throughput barrels	19,716,515	20,197,814	36,669,695	40,772,784

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Refining margin	\$ 271	\$ 130	\$ 511	\$ 353
Divided by: total throughput barrels	20	20	37	41
Refining margin per total throughput barrel	\$ 13.71	\$ 6.45	\$ 13.93	\$ 8.64

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Refining margin adjusted for FIFO impact	\$ 249	\$ 145	\$ 469	\$ 369
Divided by: total throughput barrels	20	20	37	41
Refining margin adjusted for FIFO impact per total throughput barrel	\$ 12.61	\$ 7.21	\$ 12.78	\$ 9.03

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in millions, except for \$ per barrel data)			
Direct operating expenses (exclusive of depreciation and amortization)	\$ 94	\$ 86	\$ 187	\$ 188
Major turnaround expenses	—	3	—	16
Direct operating expenses (1)	94	83	187	172
Divided by: total throughput barrels	20	20	37	41
Direct operating expenses, excluding major turnaround expenses, per total throughput barrel	\$ 4.76	\$ 4.13	\$ 5.10	\$ 4.23

(1) Direct operating expenses are shown exclusive of depreciation and amortization and major turnaround expenses.

Below is a reconciliation of net income for the nitrogen fertilizer segment to Nitrogen Fertilizer EBITDA and Adjusted Nitrogen Fertilizer EBITDA for the three and six months ended June 30, 2018 and 2017:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in millions)			
Nitrogen Fertilizer:				
Nitrogen fertilizer net loss	\$ (16)	\$ (4)	\$ (36)	\$ (14)
Add:				
Interest expense, net	16	16	32	32
Depreciation and amortization	20	20	37	35
Nitrogen Fertilizer EBITDA and Adjusted EBITDA	20	32	33	53
Add:				
Major turnaround expenses	6	—	6	—
Adjusted Nitrogen Fertilizer EBITDA	\$ 26	\$ 32	\$ 39	\$ 53

Liquidity and Capital Resources

Although results are consolidated for financial reporting, CVR Energy, CVR Refining and CVR Partners are independent business entities and operate with independent capital structures. Since the CVR Partners, initial public offering in April 2011 and CVR Refining's initial public offering in January 2013, with the exception of cash distributions paid to us by CVR Partners and CVR Refining, the cash needs of CVR Partners and CVR Refining have been met independently from the cash needs of CVR Energy and each other with a combination of existing cash and cash equivalent balances, cash generated from operating activities and credit facility borrowings. CVR Refining's and CVR Partners' ability to generate sufficient cash flows from their respective operating activities and to then make distributions on their common units, including to us (which we will need to pay salaries, reporting expenses and other expenses as well as dividends on our common stock) will continue to be primarily dependent on producing or purchasing, and selling, sufficient quantities of refined and nitrogen fertilizer products at margins sufficient to cover fixed and variable expenses.

We believe that the petroleum business and the nitrogen fertilizer business' cash flows from operations and existing cash and cash equivalents, along with borrowings under their respective existing credit facilities, as necessary, will be sufficient to satisfy the anticipated cash requirements associated with their 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, future capital expenditures and other cash requirements could be higher than we currently expect as a result of various factors. Additionally, the ability to generate sufficient cash from operating activities depends on future performance, which is subject to general economic, political, financial, competitive and other factors beyond our control.

Depending on the needs of our businesses, 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 debts. 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 2017 Form 10-K.

Cash Balances and Other Liquidity

As of June 30, 2018, we had consolidated cash and cash equivalents of \$534 million. Of that amount, \$248 million was cash and cash equivalents of CVR Energy, \$258 million was cash and cash equivalents of CVR Refining and \$28 million was cash and cash equivalents of CVR Partners. As of July 24, 2018, we had consolidated cash and cash equivalents of approximately \$602 million. In addition, CVR Refining has two credit facilities, the Amended and Restated ABL Credit Facility and the Intercompany Credit Facility, which have no amounts outstanding at June 30, 2018 and provided for \$544 million of available liquidity. CVR Partners has the ABL Credit Facility with no amounts outstanding at June 30, 2018 that provides \$50 million of available liquidity.

CVR Refining and CVR Partners have distribution policies in which they generally distribute all of their available cash each quarter, within 60 days after the end of each quarter. The distributions are made to all common unitholders. The amount of each distribution will be determined pursuant to each general partner's calculation of available cash for the applicable quarter. The general partner of each partnership, as a non-economic interest holder, is not entitled to receive cash distributions. As a result of each general partner's distribution policy, funds held by CVR Refining and CVR Partners will not be available for our use, and we as a unitholder will receive our applicable percentage of the distribution of funds within 60 days following each quarter. CVR Refining and CVR Partners do not have a legal obligation to pay distributions and there is no guarantee that they will pay any distributions on the units in any quarter.

Capital Spending

We divide the petroleum business and the nitrogen fertilizer business' capital spending needs into two categories: growth and maintenance. Maintenance capital spending includes only non-discretionary maintenance projects and projects required to comply with environmental, health and safety regulations. We undertake discretionary capital spending based on the expected return on incremental capital employed. Discretionary capital projects generally involve an expansion of existing capacity, improvement in product yields, and/or a reduction in direct operating expenses. Product yield is the percentage of refined products that is produced from crude oil and other feedstocks. Major turnaround expenses are expensed when incurred.

	Six Months Ended June 30, 2018			2018 Estimate		
	Growth	Maintenance	Total	Growth	Maintenance	Total
	(in millions)					
CVR Refining	\$ 9	\$ 23	\$ 32	\$ 20	\$ 110	\$ 130
CVR Partners	2	7	9	3	18	21
Other	—	1	1	—	9	9
Total	\$ 11	\$ 31	\$ 42	\$ 23	\$ 137	\$ 160

The petroleum business' and the nitrogen fertilizer business' estimated capital expenditures are subject to change due to unanticipated changes in the cost, scope and completion time for capital projects. For example, they 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. The petroleum business and nitrogen fertilizer business may also accelerate or defer some capital expenditures from time to time. Capital spending for CVR Partner's nitrogen fertilizer business and CVR Refining's petroleum business is determined by each partnership's respective board of directors of its general partner.

Cash Flows

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

	Six Months Ended June 30,	
	2018	2017
	(unaudited)	
	(in millions)	
Net cash provided by (used in):		
Operating activities	\$ 229	\$ 242
Investing activities	(41)	(59)
Financing activities	(136)	(89)
Net increase in cash and cash equivalents	<u>\$ 52</u>	<u>\$ 94</u>

Cash Flows Provided by Operating Activities

For purposes of this cash flow discussion, we define trade working capital as accounts receivable, inventory and accounts payable. Other working capital is defined as all other current assets and liabilities except trade working capital and commodity derivatives unrealized positions.

Net cash flows provided by operating activities for the six months ended June 30, 2018 were approximately \$229 million. The positive cash flow from operating activities generated over this period was primarily driven by net income before noncontrolling interest of \$183 million. Upon adjustment for non-cash depreciation and amortization of \$108 million, net income was reduced by an increase of \$62 million in working capital during the first six months of 2018.

Cash Flows Used in Investing Activities

Net cash used in investing activities for the six months ended June 30, 2018 was \$41 million compared to \$59 million for the six months ended June 30, 2017. Net cash used in investing activities for the six months ended June 30, 2018 was primarily attributable to capital spending of \$42 million.

Cash Flows Used In Financing Activities

Net cash used in financing activities for the six months ended June 30, 2018 was \$136 million, as compared to \$89 million for the six months ended June 30, 2017. The net cash used in financing activities for the six months ended June 30, 2018 was primarily attributable to dividend payments to common stockholders of \$87 million, distributions to CVR Refining common unitholders of \$48 million and payments of capital lease obligations of \$1 million.

As of and for the six months ended June 30, 2018, there were no borrowings or repayments under the Amended and Restated ABL credit facility or the ABL Credit Facility.

Forward-Looking Statements

This Report, including, without limitation, the section captioned "Management's Discussion and Analysis of Financial Condition and Results of Operations", contains "forward-looking statements" as defined by the Securities and Exchange Commission ("SEC"), including statements concerning contemplated transactions and strategic plans, expectations and objectives for future operations. Forward-looking statements include, without limitation:

- statements, other than statements of historical fact, that address activities, events or developments that we expect, believe or anticipate will or may occur in the future;
- statements relating to future financial or operational performance, future dividends, future capital sources and capital expenditures; and
- any other statements preceded by, followed by or that include the words "anticipates," "believes," "expects," "plans," "intends," "estimates," "projects," "could," "should," "may" or similar expressions.

Although we believe that our plans, intentions and expectations reflected in or suggested by the forward-looking statements we make in this Report, including this Management's Discussion and Analysis of Financial Condition and Results of Operations, are reasonable, we give no assurance that such plans, intentions or expectations will be achieved. These statements are based on assumptions made by us based on our experience and perception of historical trends, current conditions, expected future developments and other factors that we believe are appropriate in the circumstances. Such statements are subject to a number of risks and uncertainties, many of which are beyond our control. You are cautioned that any such statements are not guarantees of future performance and that actual results or developments may differ materially from those projected in the forward-looking statements as a result of various factors, including but not limited to those set forth under Part I — Item 1A. "Risk Factors" in the 2017 Form 10-K, filed with the SEC on February 26, 2018. Such factors include, among others:

- volatile margins in the refining industry and exposure to the risks associated with volatile crude oil prices;
- the availability of adequate cash and other sources of liquidity for the capital needs of our businesses;
- the ability to forecast future financial condition or results of operations and future revenues and expenses of our businesses;
- the effects of transactions involving forward and derivative instruments;
- disruption of the petroleum business' ability to obtain an adequate supply of crude oil;
- changes in laws, regulations and policies with respect to the export of crude oil or other hydrocarbons;
- interruption of the pipelines supplying feedstock and in the distribution of the petroleum business' products;
- competition in the petroleum and nitrogen fertilizer businesses;
- capital expenditures and potential liabilities arising from environmental laws and regulations;
- changes in ours or CVR Refining's or CVR Partners' credit profile;
- the cyclical nature of the nitrogen fertilizer business;
- the seasonal nature of the petroleum business;
- the supply and price levels of essential raw materials of our businesses;
- the risk of a material decline in production at our refineries and nitrogen fertilizer plants;
- potential operating hazards from accidents, fire, severe weather, tornadoes, floods or other natural disasters;
- the risk associated with governmental policies affecting the agricultural industry;
- the volatile nature of ammonia, potential liability for accidents involving ammonia that cause interruption to the nitrogen fertilizer business, severe damage to property and/or injury to the environment and human health and potential increased costs relating to the transport of ammonia;
- the dependence of the nitrogen fertilizer business on a few third-party suppliers, including providers of transportation services and equipment;
- new regulations concerning the transportation of hazardous chemicals, risks of terrorism, and the security of chemical manufacturing facilities and other matters beyond our control;
- the risk of security breaches;
- the petroleum business' and the nitrogen fertilizer business' dependence on significant customers and the creditworthiness and performance by counterparties;
- the potential loss of the nitrogen fertilizer business' transportation cost advantage over its competitors;

- the potential inability to successfully implement our business strategies, including the completion of significant capital programs;
- our ability to continue to license the technology used in the petroleum business and nitrogen fertilizer business operations;
- our petroleum business' ability to purchase RINs on a timely and cost effective basis;
- our petroleum business' continued ability to secure environmental and other governmental permits necessary for the operation of its business;
- existing and proposed laws, rulings and regulations, including those relating to climate change, alternative energy or fuel sources, and existing and future regulations related to the end-use and application of fertilizers;
- refinery and nitrogen fertilizer facilities' operating hazards and interruptions, including unscheduled maintenance or downtime, and the availability of adequate insurance coverage;
- instability and volatility in the capital and credit markets; and
- potential exposure to underfunded pension obligations of affiliates as a member of the controlled group of Mr. Icahn.

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.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

There have been no material changes to our market risks as of June 30, 2018 and for the three and six months ended June 30, 2018 from the risks discussed in Part II, Item 7A of our 2017 Form 10-K.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of June 30, 2018, 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 June 30, 2018 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 9 ("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 2017 Form 10-K.

Item 6. Exhibits

Exhibit Number	Exhibit Description
3.1**	Composite copy of Amended and restated Certificate of Incorporation of CVR Energy, Inc. amended through June 15, 2018 (incorporated by reference to Exhibit 3.1 of the Form 8-K filed on June 15, 2018).
3.2**	Amended and Restated ByLaws of CVR Energy, Inc., as amended through June 15, 2018 (incorporated by reference to Exhibit 3.2 of the Form 8-K filed on June 15, 2018).
10.1*	Offer Letter, dated April 16, 2018, by and between CVR Energy, Inc. and Tracy D. Jackson.
10.2*	Retention, Severance and Release Agreement, dated May 2, 2018, by and between CVR Energy, Inc. and John R. Walter.
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 June 30, 2018 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 or 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.



April 16, 2018

By Email

Tracy D. Jackson

Re: Employment Offer

Dear Ms. Jackson:

We are pleased to offer you the position of Executive Vice President and Chief Financial Officer with CVR Energy, Inc. (the “Company”) at a bi-weekly salary of \$16,731.00 (annualized at \$435,006.00), subject to deductions as required by law. Your position is an exempt position that requires a significant level of responsibility, discretion, and independent judgment. As a result, it carries no additional compensation for overtime worked. In this position, you will report to Dave Lamp, President & Chief Executive Officer. We have selected a tentative start date of April 30, 2018. This letter sets forth some of the additional terms of your employment with the Company.

You will be eligible to participate in our medical, dental, vision, life insurance, matching 401(k), and paid time off (“PTO”) plans, subject to and in accordance with our plan requirements, which may change from time to time. You will be eligible to enroll in our health and welfare plans on the first day of the month following your first 30 days of employment. The Company reserves the right to add, change, or terminate benefits at any time including, but not limited to, those set forth above.

You will receive 40 hours of PTO on your start date. Your PTO accrual rate will be 6.15 hours per pay period, and you will begin to accrue PTO on your start date. Your PTO accrual rate will increase as years of service increase, and unused PTO balances of up to 240 hours may be carried over from year to year, subject to and in accordance with our PTO policy, which may change from time to time.

You will be eligible to participate in our annual bonus plan, subject to the guidelines of the plan and any changes to the same, with an annual target bonus of 120% of your base salary. There is no guarantee of payout under the bonus plan.

Upon your start date, you will be awarded Incentive Units, which include Distribution Equivalent Rights, with an approximate target value of \$522,000, subject to the terms of an Incentive Unit Agreement, which will be delivered to you after your start date. Going forward you will also be eligible to participate in the annual long term Incentive Unit awards issued to employees of the Company.

As a condition of your initial and continued employment with the Company, you agree that during and after your employment you shall not disclose to any third party any confidential or proprietary information of the Company, any of its affiliates or subsidiaries, or any of their respective owners, members, directors, managers, and employees. However, neither the foregoing nor anything else in this letter shall prohibit you from reporting any possible violations of federal law or regulation to any government agency or entity, including but not limited to the Department of Justice and the Securities and Exchange Commission, or making any other disclosures that are protected under the whistleblower provisions of federal law or regulation. You are not required to notify the Company that you will make or have made such reports or disclosures provided, however, that any such reports or disclosures are made in a manner that limits, to the extent possible, disclosure of confidential or proprietary information of the Company.

This employment offer is subject to, and contingent upon, your successful completion of our post-offer, pre-employment screening requirements, including a background check and drug and alcohol test. A Company representative will contact you shortly regarding these processes.

Your employment will be “at will,” meaning that your employment is for no specific duration and either you or the Company are free to end your employment at any time, for any reason. Nothing contained in this letter shall limit or otherwise alter the foregoing. Your employment will be subject to other Company policies, procedures, directives, terms, and conditions that may be established or modified by the Company from time to time.

After the satisfactory completion of all of the conditions set forth in this letter, the Company will pay you a one-time relocation sign-on bonus of \$75,000, subject to deductions as required by law. This amount will be issued to you with the first paycheck after your start date. If you voluntarily terminate your employment or are terminated for misconduct or violation of Company policy within one year of your start date, you agree to pay back 100% of this bonus within 10 days of your date of termination. Further, in the event you must pay back this bonus, you authorize the Company, subject to applicable law, to withhold wages and other amounts payable to you at the time of your last paycheck to help satisfy this obligation.

To confirm your acceptance of this offer, please sign this letter and return it to me as soon as possible. Upon acceptance, please contact me to establish a mutually agreeable start date.

If you have any questions, please feel free to contact me. We look forward to you joining our team.

Sincerely,

/s/ Alicia Skalnik

Alicia Skalnik, SPHR
Vice President of Human Resources

Acknowledged and Agreed:

/s/ Tracy D. Jackson
Tracy D. Jackson

RETENTION, SEVERANCE, AND RELEASE AGREEMENT

This Retention, Severance, and Release Agreement ("Agreement") is made and entered into by and among CVR Energy, Inc. (referred to as "Company", "we" or "us") and John R. Walter ("you" or "your").

WHEREAS, Company has made the decision to relocate its corporate office in Kansas City, Kansas and as a result is eliminating positions related to the corporate functions of that office and relocating certain other positions which is resulting in the termination of your employment.

WHEREAS, the Company desires to retain you as an employee (and/or otherwise compensate you) through the Completion Date stated below, to assist with transition and other matters arising out of the reorganization; and

WHEREAS, the Company desires to provide you with severance pay and other benefits to which you are not otherwise entitled to receive.

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth in this Agreement, the parties agree to the terms set forth below.

- 1. Payment of Salary through the Completion Date and Separation of Employment.** Your employment with the Company will end effective July 31, 2018 ("the Completion Date"). You agree to use your good faith efforts to diligently assist the Company as needed or as requested, including necessary travel, through the Completion Date in the completion of assigned duties, the transfer of your knowledge and the orderly transition of your responsibilities, and such other duties as may be requested by the Company through such date. We will continue to pay you at your current regular base salary through the Completion Date (unless you depart earlier due to your own volition). Should the Company elect to relieve you of all further work responsibilities prior to the Completion Date, we nevertheless will pay you through the Completion Date at your current, regular base salary, provided these additional requirements are met:
 - a. You will be permitted reasonable time off from work utilizing unused accrued paid time off (PTO) through the Completion Date as needed and requested in advance to explore other employment opportunities so long as they do not conflict with your responsibilities and duties with the Company.
 - b. If you fail to materially perform duties as assigned, engage in material acts of misconduct, and/or materially violate Company policies at any time prior to the Completion Date, the Company reserves the right to revoke and rescind the severance, retention and related payments set for the below.
 - c. On or immediately after the Completion Date (or such earlier separation date elected by the Company), you agree to execute a Supplemental Release Agreement in the form attached hereto as Attachment A.

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2. **Accrued Paid Time Off.** The Company will pay you for any unused accrued PTO that you have remaining as of the Completion Date, less appropriate payroll deductions.
3. **Severance.** If you remain employed with us through the Completion Date (and do not depart earlier due to your own volition), the Company will pay you the gross amount of \$87,692.00, less appropriate payroll deductions as severance pay in accordance with the CVR Severance Pay Plans (effective August 1, 2016), representing two weeks' base pay plus one week for each completed year of service, up to 26 weeks total severance payment, payable in a lump sum on the first regularly scheduled payroll cycle of the Company after you execute and return Attachment A—Supplemental Release Agreement if you remain employed with us through the Completion Date.
4. **Payment in Lieu of 2018 Bonus.** If you remain employed with us through the Completion Date (and do not depart earlier due to your own volition), the Company will pay you the gross amount of \$243,833.00, less appropriate payroll deductions, payable in a lump sum on the first regularly scheduled payroll cycle of the Company after you execute and return Attachment A—Supplemental Release Agreement. This amount represents payment in lieu of any potential 2018 bonus under any applicable Company plan, pro-rated for the number of months you were employed by the Company up to the Completion Date.
5. **Retention Bonus.** If you remain employed with us through the Completion Date (and do not depart earlier due to your own volition), the Company will pay you the gross amount of \$58,462.00, less appropriate payroll deductions, which represents two additional weeks of base pay per month until the Completion Date, payable in a lump sum on the first regularly scheduled payroll cycle of the Company after you execute and return Attachment A —Supplemental Release Agreement.
6. **Long Term Incentive Award.** The Company will pay you for all “Incentive Units” that are scheduled to vest in 2018 under your Incentive Unit Agreements (each an “Award Agreement”). For each Incentive Unit that is scheduled to vest in 2018, you will receive (a) an amount that is equal to the average closing price of the common units (the “Units”) of CVR Refining, LP (the “Partnership”) per Unit for the 10 business days preceding the separation date (should the Company elect to relieve you for all further responsibilities prior to the Completion Date) or Completion Date, whichever is the earlier, plus (b) the amount per Unit, scheduled to vest in 2018, of all distributions declared and paid by the Partnership from the applicable “Grant Date” of the applicable Award Agreement to and including the Completion Date (or such earlier separation date, if applicable), less, in each case, applicable “Withholding Taxes” as defined in each Award Agreement. All other Incentive Units shall be deemed forfeited and you will have no rights with respect thereto.
7. **Company Election of Earlier Separation Date.** Should the Company elect to relieve you of all further work responsibilities prior to the Completion Date, under Sections 3, 4, and 5, Company nevertheless will pay you a recalculated amount of each payment based on your separation date less appropriate payroll deductions, payable in a lump sum on the first regularly scheduled payroll cycle of the Company after you execute and return Attachment A—Supplemental Release Agreement.

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- 8. Benefits.** The Company will continue to pay its portion of the monthly cost of group health coverage for you (and your existing covered dependents) under the Company sponsored group health plan through the separation date or Completion Date, whichever is the earlier. Thereafter, you (and your existing covered dependents, if any) may elect COBRA continuation coverage pursuant to the federal COBRA law, or seek coverage through the federal Health Insurance Marketplace (Exchange), pursuant to applicable law. All other benefits, including life and disability insurance, made available by the Company shall cease as of the Completion Date, unless you timely arrange for any conversion coverage as may be permitted by the plans.
- 9. Unemployment Benefits.** The Company agrees not to contest (or appeal) any claim for unemployment benefits that you may file with the appropriate state unemployment office after the Completion Date.
- 10. 401(k) Plan.** As required by law, you will no longer be eligible to participate as an active employee in the Company's 401(k) Plan (the "401(k) Plan") after the Completion Date (or such earlier separation date, if applicable), however, you may (to the extent permitted by the terms of the 401(k) Plan) continue to retain an account in such plan until you desire to receive a distribution of your 401(k) Plan account balance. In accordance with federal law, you will not be permitted to make any salary deferral contributions from the payment set forth in paragraph 3, 4, 5 and 6 of this Agreement. However, you will remain vested in any benefits you may have under the 401(k) Plan, pursuant to the terms thereof.
- 11. Totality of Payments and Benefits.** The parties agree that the sums set forth in paragraphs 1, 2, 3, 4, 5, and 6 of this Agreement represent all the sums to be paid by the Company to you, or on your behalf, and include any other payments (including any unused or accrued vacation pay, sick pay, PTO, and any other compensation, bonuses, severance or benefits) that you may otherwise had been eligible to receive had you not accepted this Agreement.
- 12. Release.** You release and forever discharge the Company (including CVR Energy, Inc.; Coffeyville Resources, LLC; Coffeyville Resources Refining & Marketing, LLC; Coffeyville Resources Crude Transportation, LLC; Coffeyville Resources Terminal, LLC; Coffeyville Resources Pipeline, LLC; CVR GP, LLC; CVR Partners, LP; Coffeyville Resources Nitrogen Fertilizers, LLC; Wynnewood Energy Company, LLC; Wynnewood Refining Company, LLC; CVR Refining Holdings, LLC; CVR Refining, LLC; CVR Refining, LP; CVR Refining GP, LLC; CVR Nitrogen, LP; CVR Nitrogen GP, LLC; CVR Nitrogen Holdings, LLC and East Dubuque Nitrogen Fertilizers, LLC; and our respective predecessors, successors, assigns, officers, directors, owners, fiduciaries, shareholders, employees, agents, attorneys, representatives, insurers, direct and indirect subsidiaries, parents, divisions, affiliates and related companies, collectively referred to as "Released Parties" or "Affiliates") from any and all claims, damages, lawsuits, injuries, liabilities and causes of action or demands, known or unknown, that you have or might have in the future, including but not limited to those rights and claims which arise out of your employment with us and the separation of your employment. You agree that the Company and any Released Parties have no further employment obligation to you after the Completion Date (or such earlier separation date, if applicable), either in an individual capacity or as an independent contractor, and you agree not to apply or seek employment with the Company or any Released Parties in any such capacity.

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Employee Initials

13. Release Includes All Claims. You acknowledge and agree that you are releasing us (and all Released Parties) from all rights and claims that may be asserted under any applicable local, state, federal, statutory or common law relating to discrimination in employment including, without limitation, discrimination relating to race, color, sex, gender, religion, national origin, ancestry, handicap, disability, genetics or genetic information, veterans status, equal pay, marital status, pregnancy, age, retaliation or whistle-blowing and including claims under Title VII of the 1964 Civil Rights Act, the Civil Rights Act of 1991, Fair Labor Standards Act, Equal Pay Act, the Age Discrimination in Employment Act, the Americans with Disabilities Act as amended, 42 U.S.C. sections 1981, 1983 and 1985, Executive Order 11246, the Rehabilitation Act, the Employee Retirement Income Security Act, Worker's Compensation laws, the Consolidated Omnibus Budget Reconciliation Act (COBRA), the Family and Medical Leave Act, the National Labor Relations Act, all applicable Texas, Kansas, Illinois and Oklahoma state laws, libel, slander, defamation, invasion of privacy, outrageous conduct, intentional or negligent infliction of emotional distress, respondeat superior, negligent hiring or retention, and all other laws and ordinances which are meant to protect workers in their employment relationships and under which you may have rights and claims.

Nothing in this Agreement, however, shall be construed to prohibit you from filing a charge with or participating in any investigation or proceeding conducted by the EEOC or a comparable state or local agency. Notwithstanding the foregoing, you are agreeing to waive your right to recover monetary damages or receive any individual relief in any charge, complaint, or lawsuit filed by you or by anyone else on your behalf, including in connection with any EEOC or comparable state or local agency charge, investigation or proceeding.

14. Non-Admission. This Agreement does not constitute an admission by any party that it has committed any wrongdoing.

15. Return of Property. You agree to promptly supply to the Company on the Completion Date, or such other date requested by the Company, all computer passwords, property, keys, notes, memoranda, writings, lists, files, reports, customer lists, correspondence, tapes, disks, cards, surveys, maps, logs, machines, technical data and any other tangible product or document which has been produced by, received by, or otherwise submitted to you during your employment with the Company, and any copies thereof in your possession (or capable of being reduced to your possession).

16. Unauthorized Disclosure. You agree and understand that in your position with the Company and its Affiliates, you have been exposed to and have received information relating to the confidential affairs of the Company and its Affiliates, including, without limitation, employee personnel and financial information, technical information, intellectual property, business and marketing plans, strategies, customer information, software, other information concerning the products, promotions, development, financing, expansion plans, business policies and practices of the Company and its Affiliates and other forms of information considered by the Company and its Affiliates to be confidential and in the nature of trade secrets (including, without limitation, ideas, research and development, know-how, formulas, technical data, designs, drawings, specifications, customer and supplier lists, pricing and cost information and business and marketing plans and proposals) (collectively, the "Confidential Information"); provided, however, that the Confidential Information shall not include information which (i) is or becomes generally available to the public not in violation of this Agreement or any written policy of the Company; or (ii) was in your possession or

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knowledge on a non-confidential basis prior to such disclosure. You agree that you will not disclose such Confidential Information, either directly or indirectly, to any individual, corporation, partnership, limited liability company, association, trust or other entity or organization, including a government or political subdivision or an agency or instrumentality thereof, without the prior written consent of the Company; and, you shall not use or attempt to use any such information in any manner unless required by law to disclose such information, in which case you shall provide the Company with written notice of such requirement as far in advance of such anticipated disclosure as possible. Your confidentiality covenant has no temporal, geographical or territorial restriction. Nothing in this Agreement prohibits you from reporting any possible violations of federal law or regulation to any government agency or entity, including, but not limited to, the Department of Justice and the Securities and Exchange Commission, or making any other disclosures that are protected under the whistleblower provisions of federal law or regulation. You are not required to notify the Company that you will make or have made such reports or disclosures.

- 17. Non-Disparagement.** You agree not to make any disparaging comment in any format, whether written, electronic, or oral, to any customer, employee, the press, or any other individual or non-government entity regarding the Company (including its directors, officers and employees) that relates to the Company's business or related activities or the relationship between the parties.
- 18. Cooperation.** In exchange for the severance and other payments set forth in this Agreement, you agree to fully cooperate in any transition issues relating to your work that may arise following your separation from the Company. Such cooperation includes, but is not limited to, providing reasonable assistance and explanations to the Company of the status of pending issues and/or projects and providing responses in a reasonably timely manner to other requests for assistance. You further agree to cooperate with the Company in the event it is involved in litigation, a claim, or other administrative proceedings where you may be a witness or are otherwise necessary for the defense of the action. Such cooperation includes, but is not limited to, providing information and documentation as requested, and responding to reasonable requests from and working with the Company and/or its attorneys in the defense of the litigation, claim, or other administrative proceeding.
- 19. Confidentiality of this Agreement.** You agree to keep the terms and provisions of this Agreement in complete and absolute confidence, and agree not to reveal them without written permission from the Company to any person, or any other entity, other than to your immediate family and to your accountant, tax consultants and attorneys (who shall all also agree to keep such confidences), and taxing or government authorities.
- 20. 45-Days to Consider and 7-Day Revocation Period.** You have been given a period of at least 45 days in which to consider this Agreement. You agree that any changes made to this Agreement (whether material or not) must be made in writing, be signed and dated by both parties, and that any such changes do not restart the running of the 45-day period. You have the right to revoke this Agreement by giving written notice to Alicia Skalnik, Vice President Human Resources, CVR Energy, Inc., 2277 Plaza Drive, Suite 500, Sugar Land, Texas 77479, during the 7-day period after you sign them. This Agreement will not become effective or enforceable until the 7-day revocation period has expired.

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This Agreement shall expire and shall be deemed revoked by Company if the Agreement is not accepted by you, without revocation, within sixty (60) days after presentation of this Agreement to you by the Company.

- 21. Complete Agreement.** This Agreement constitutes the full, complete and entire agreement between the parties. There are no representations, promises, or agreements, whether express or implied, that are not set forth in this Agreement.
- 22. Governing Law.** This Agreement shall be governed by and interpreted under the laws of the State of Kansas to the extent not preempted by federal law. If any provision of the Release is deemed to be void or unenforceable, both parties agree that the remaining provisions shall be enforceable.
- 23. Eligibility.** All employees who report up through the Chief Financial Officer of CVR Energy, Inc. and all employees who are located in the Kansas City Office, excluding employees in the Fertilizer Logistics department who report up to James Witthaus, Fertilizer Marketing department who report up to Matthias Green, and the Environmental, Health & Safety department are the decisional unit from which we choose the employees who would be offered consideration for signing a release of all claims and those who would not. All of the eligible employees have been offered the same terms and conditions found in this Agreement, subject to pay variations resulting from years of service, compensation, eligibility for 2018 bonus payments and Completion Date. The job title, department, pay grade, location, and age of all eligible individuals, including who was offered the agreement and those who were not offered an agreement, are set forth in Attachment B. As indicated on Attachment B, certain employees are being offered the ability to relocate or a retention bonus to delay their Completion Date to assist with transition of responsibilities. Attachment B is subject to change and may be affected by future employment decisions including future reorganization decisions affecting the decisional unit.
- 24. Read, Understood and Voluntarily Signed.** The law requires that we advise you to consult with an attorney prior to signing this Agreement. You acknowledge that you have read this Agreement and understand it, and that you have signed it voluntarily.

/s/ John R. Walter May 2, 2018
John R. Walter Dated

/s/ Alicia Skalnik 05/02/2018
CVR Energy, Inc. Dated

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Employee Initials

**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.

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

Date: July 26, 2018

**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: July 26, 2018

**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.

/s/ MATTHEW W.
By: BLEY

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

Date: July 26, 2018

**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 June 30, 2018, 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: July 26, 2018