VALERO ENERGY CORP/TX Form 424B5 May 17, 2018 Table of Contents

Filed Pursuant to Rule 424(b)(5) Registration No. 333-224993

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MAY 17, 2018

PRELIMINARY PROSPECTUS SUPPLEMENT

(To Prospectus dated May 17, 2018)

\$

Valero Energy Corporation

% Senior Notes due 2028

This is an offering of \$ aggregate principal amount of our % Senior Notes due 2028 (the notes). The notes will mature on , 2028. Interest on the notes will be payable semi-annually on and of each year, commencing , 2018. We may redeem the notes in whole at any time or in part from time to time at the redemption price described in this prospectus supplement. The notes will be issued in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess thereof.

Investing in the notes involves risks. See <u>Risk Factors</u> on page S-2 of this prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

		Underwriting	Proceeds (before	
	Price to Public (1)	Discount	expenses) to Valero	
Per 2028 note	%	%	<u>~</u>	
Total	\$	\$	\$	

(1) Plus accrued interest, if any, from , 2018. The notes will not be listed on any securities exchange. Currently, there is no public market for the notes.

It is expected that delivery of the notes will be made to investors through the book-entry delivery system of The Depository Trust Company for the accounts of its participants, including Clearstream and Euroclear, on or about , 2018.

Joint Book-Running Managers

BofA Merrill	Lynch	J.P. Morgan	Morgan Stanley	Wells Fargo Securities
Citigroup	PNC Ca	pital Markets LLC	RBC Capital Markets	TD Securities

, 2018

TABLE OF CONTENTS

	Page
Prospectus Supplement	
Valero Energy Corporation	S-1
Risk Factors	S-2
<u>Use of Proceeds</u>	S-3
<u>Description of the Notes</u>	S-4
Underwriting	S-11
Legal Matters	S-15
Prospectus	
About This Prospectus	1
Where You Can Find More Information	1
Cautionary Statement Concerning Forward-Looking Statements	2
Risk Factors	4
Valero Energy Corporation	4
<u>Use of Proceeds</u>	4
Ratios of Earnings to Fixed Charges	4
<u>Description of Debt Securities</u>	5
<u>Plan of Distribution</u>	12
<u>Legal Matters</u>	12
Experts	13

We have not, and the underwriters have not, authorized anyone to provide you with any information other than that contained or incorporated by reference in this prospectus supplement, the accompanying prospectus or any free writing prospectus prepared by or on behalf of us or to which we have referred you. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any information that others may give you. We are not, and the underwriters are not, making an offer to sell any security in any jurisdiction where the offer or sale is not permitted. You should assume the information appearing in this prospectus supplement and the accompanying prospectus is accurate only as of the date on the cover of this prospectus supplement and the accompanying prospectus and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects may have changed since that date.

As used in this prospectus supplement, the terms Valero, we, us and our may, depending upon the context, refer to Valero Energy Corporation, to one or more of its consolidated subsidiaries or to all of them taken as a whole.

VALERO ENERGY CORPORATION

We are a Fortune 500 company based in San Antonio, Texas. We were incorporated in Delaware in 1981 under the name Valero Refining and Marketing Company. We changed our name to Valero Energy Corporation on August 1, 1997. Our common stock trades on the New York Stock Exchange (NYSE) under the symbol VLO. On January 31, 2018, we had 10,015 employees.

We own 15 petroleum refineries located in the United States (U.S.), Canada, and the United Kingdom (U.K.) with a combined throughput capacity of approximately 3.1 million barrels per day. Our refineries produce conventional gasolines, premium gasolines, gasoline meeting the specifications of the California Air Resources Board (CARB), diesel, low-sulfur diesel, ultra-low-sulfur diesel, CARB diesel, other distillates, jet fuel, asphalt, petrochemicals, lubricants, and other refined petroleum products. We sell our refined petroleum products in both the wholesale rack and bulk markets, and approximately 7,400 outlets carry our brand names in the U.S., Canada, the U.K., and Ireland. Most of our logistics assets support our refining operations, and some of these assets are owned by Valero Energy Partners LP (VLP), a midstream master limited partnership majority owned by us. We also own 11 ethanol plants in the Mid-Continent region of the U.S. with a combined production capacity of approximately 1.45 billion gallons per year. We sell our ethanol in the wholesale bulk market, and some of our logistics assets support our ethanol operations.

Our principal executive offices are located at One Valero Way, San Antonio, Texas, 78249, and our telephone number is (210) 345-2000.

S-1

RISK FACTORS

Investing in the notes involves risk. Before making an investment in the notes, you should carefully consider the risk factors identified in Part I, Item. 1A. Risk Factors of our Annual Report on Form 10-K for the year ended December 31, 2017, as those risk factors are amended or supplemented by subsequent Quarterly Reports on Form 10-Q and other reports and documents we file with the SEC after the date of this prospectus supplement that are incorporated by reference herein, together with the other information contained in this prospectus supplement, the accompanying prospectus and the documents we have incorporated by reference.

USE OF PROCEEDS

We estimate that the net proceeds we will receive from this offering will be approximately \$\\$ after deducting the underwriting discount and estimated expenses of the offering payable by us. We anticipate using the net proceeds from this offering for general corporate purposes, which may include the funding of the redemption of \$750 million aggregate principal amount of our 9.375% Senior Notes due 2019.

S-3

DESCRIPTION OF THE NOTES

The following description of the particular terms of the notes offered hereby (referred to in the accompanying prospectus as the debt securities) supplements, and to the extent inconsistent therewith replaces, the description of the general terms and provisions of the debt securities set forth in the accompanying prospectus, to which we refer you. The following summary of the notes is qualified in its entirety by reference to the indenture referred to in the accompanying prospectus.

General

The notes will be issued pursuant to an indenture (the indenture) dated as of March 10, 2015 by and between Valero and U.S. Bank National Association (the trustee). The notes will constitute a separate series of debt securities under the indenture, initially limited to \$ aggregate principal amount. The notes will mature on , 2028. We will issue the notes in fully registered book-entry form only, without coupons, in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess thereof. The indenture does not limit the aggregate principal amount of debt securities that may be issued thereunder and provides that debt securities may be issued thereunder from time to time in one or more additional series. The indenture does not limit our ability to incur additional indebtedness. We may reopen the notes and issue an unlimited principal amount of additional notes in the future without the consent of any holder of the notes; provided that if the additional notes are not fungible with the notes for U.S. federal income tax purposes, the additional notes will have a separate CUSIP number.

The notes will bear interest at the rate per annum shown on the cover page of this prospectus supplement from , 2018 or from the most recent interest payment date to which interest has been paid or provided for, payable semi-annually on and of each year, commencing , 2018, to the persons in whose names such notes are registered at the close of business on the or prior to such interest payment date. Interest on the notes will be computed on the basis of a 360-day year consisting of twelve 30-day months. If any interest payment date, redemption date or maturity date of any note falls on a day that is not a business day, then payment of principal, premium, if any, or interest will be made on the next succeeding business day. No interest will accrue on the amount so payable for the period from such interest payment date, redemption date or maturity date, as the case may be, to the date payment is made.

The notes will not be entitled to the benefit of any sinking fund.

The notes will be unsecured, rank equally with all the existing and future unsecured and unsubordinated debt of Valero, be senior to any future subordinated debt and be effectively junior to any secured debt and to all existing and future debt and other liabilities of our subsidiaries.

Optional Redemption

The notes will be redeemable, at any time and from time to time prior to , 2028 (three months prior to the maturity date), in whole or in part and at our option, at a redemption price equal to the greater of:

100% of the principal amount of notes to be redeemed, or

the sum of the present values of the remaining scheduled payments of principal and interest thereon (not including any portion of such payments of interest accrued as of the redemption date) calculated as if the maturity date of the notes was , 2028 (three months prior to the maturity date), discounted to the redemption date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Adjusted Treasury Rate, plus basis points, as calculated by an Independent Investment Banker,

S-4

plus, in either of the above cases, accrued and unpaid interest thereon to the redemption date; provided that the principal amount of a note outstanding after redemption in part shall be \$2,000 or an integral multiple of \$1,000 in excess thereof.

On or after , 2028 (three months prior to the maturity date), we may redeem the notes at any time, in whole or in part and at our option, at a redemption price equal to 100% of the principal amount of such notes, plus accrued and unpaid interest to, but not including, the redemption date.

Adjusted Treasury Rate means, with respect to any redemption date:

the yield, under the heading which represents the average for the immediately preceding week, appearing in the most recently published statistical release designated H.15(519) or any successor publication which is published weekly by the Board of Governors of the Federal Reserve System and which establishes yields on actively traded United States Treasury securities adjusted to constant maturity under the caption Treasury Constant Maturities, for the maturity corresponding to the Comparable Treasury Issue (if no maturity is within three months before or after the remaining life, yields for the two published maturities most closely corresponding to the Comparable Treasury Issue shall be determined and the Adjusted Treasury Rate shall be interpolated or extrapolated from such yields on a straight line basis, rounding to the nearest month); or

if such release (or any successor release) is not published during the week preceding the calculation date or does not contain such yields, the rate per annum equal to the semi-annual equivalent yield to maturity of the Comparable Treasury Issue, calculated using a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date.

The Adjusted Treasury Rate shall be calculated on the third business day preceding the redemption date.

Comparable Treasury Issue means the U.S. Treasury security selected by an Independent Investment Banker as having a maturity comparable to the remaining term of the notes to be redeemed (assuming, for this purpose, that the notes matured on , 2028 (three months prior to the maturity date)) that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of such notes (assuming, for this purpose, that the notes matured on , 2028 (three months prior to the maturity date)) (remaining life).

Comparable Treasury Price means, with respect to any redemption date:

the average of five Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest Reference Treasury Dealer Quotations, or

if the Independent Investment Banker obtains fewer than five such Reference Treasury Dealer Quotations, the average of all such quotations.

Independent Investment Banker means one of the Reference Treasury Dealers appointed by us to act as the Independent Investment Banker from time to time.

Reference Treasury Dealer means:

Merrill Lynch, Pierce, Fenner & Smith Incorporated, J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC and Wells Fargo Securities, LLC or their respective successors, provided that, if

S-5

any of the foregoing ceases to be a primary U.S. Government securities dealer (a primary treasury dealer), we will substitute another primary treasury dealer; and

any other primary treasury dealer selected by us.

Reference Treasury Dealer Quotations means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Independent Investment Banker, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Independent Investment Banker at 3:30 p.m., New York City time, on the third business day preceding such redemption date.

We will mail a notice of redemption at least 30 days but not more than 60 days before the redemption date to each holder of notes to be redeemed. If we elect to partially redeem the notes, the trustee will select in a fair and appropriate manner the notes to be redeemed.

Unless we default in payment of the redemption price, on and after the redemption date, interest will cease to accrue on the notes or portions thereof called for redemption.

Book-Entry System, Form and Delivery

We have obtained the information in this section concerning The Depository Trust Company (DTC), Clearstream Banking, S.A., Luxembourg (Clearstream) and Euroclear Bank S.A./N.V., as operator of the Euroclear System (Euroclear) and their book-entry systems and procedures from sources that we believe to be reliable. We take no responsibility for an accurate portrayal of this information. In addition, the description of the clearing systems in this section reflects our understanding of the rules and procedures of DTC, Clearstream and Euroclear as they are currently in effect. Those systems could change their rules and procedures at any time.

The notes will initially be represented by one or more fully registered global notes. Each such global note will be deposited with, or on behalf of, DTC or any successor thereto and registered in the name of Cede & Co. (DTC s nominee). You may hold your interests in the global notes in the U.S. through DTC, or in Europe through Clearstream or Euroclear, either as a participant in such systems or indirectly through organizations which are participants in such systems. Clearstream and Euroclear will hold interests in the global notes on behalf of their respective participating organizations or customers through customers securities accounts in Clearstream s, Luxembourg s or Euroclear s names on the books of their respective depositaries, which in turn will hold those positions in customers securities accounts in the depositaries names on the books of DTC.

So long as DTC or its nominee is the registered owner of the global securities representing the notes, DTC or such nominee will be considered the sole owner and holder of the notes for all purposes of the notes and the indenture. Except as provided below, owners of beneficial interests in the notes will not be entitled to have the notes registered in their names, will not receive or be entitled to receive physical delivery of the notes in definitive form and will not be considered the owners or holders of the notes under the indenture, including for purposes of receiving any reports delivered by us or the trustee pursuant to the indenture. Accordingly, each person owning a beneficial interest in a note must rely on the procedures of DTC or its nominee and, if such person is not a participant, on the procedures of the participant through which such person owns its interest, in order to exercise any rights of a holder of notes.

Unless and until we issue the notes in fully certificated, registered form under the limited circumstances described below under the heading

Certificated Notes:

you will not be entitled to receive a certificate representing your interest in the notes;

all references in this prospectus supplement or the accompanying prospectus to actions by holders will refer to actions taken by DTC upon instructions from its direct participants; and

S-6

all references in this prospectus supplement or the accompanying prospectus to payments and notices to holders will refer to payments and notices to DTC or Cede & Co., as the registered holder of the notes, for distribution to you in accordance with DTC procedures.

We have provided the descriptions of the operations and procedures of DTC, Clearstream and Euroclear in this prospectus supplement solely as a matter of convenience. These operations and procedures are solely within the control of those organizations and are subject to change by them from time to time. None of us, the underwriters or the trustee takes any responsibility for these operations or procedures, and you are urged to contact DTC, Clearstream and Euroclear or their participants directly to discuss these matters.

The Depository Trust Company

DTC will act as securities depositary for the notes. DTC is:

- a limited-purpose trust company organized under the New York Banking Law;
- a banking organization under the New York Banking Law;
- a member of the Federal Reserve System;
- a clearing corporation under the New York Uniform Commercial Code; and
- a clearing agency registered under the provisions of Section 17A of the Exchange Act.

 DTC holds securities that its direct participants deposit with DTC. DTC facilitates the settlement among direct participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in direct participants accounts, thereby eliminating the need for physical movement of securities certificates.

Direct participants of DTC include securities brokers and dealers (including the underwriters), banks, trust companies, clearing corporations and certain other organizations. DTC is owned by a number of its direct participants. Indirect participants of DTC, such as securities brokers and dealers, banks and trust companies, can also access the DTC system if they maintain a custodial relationship with a direct participant.

Purchases of notes under DTC s system must be made by or through direct participants, which will receive a credit for the notes on DTC s records. The ownership interest of each beneficial owner is in turn to be recorded on the records of direct participants and indirect participants. Beneficial owners will not receive written confirmation from DTC of their purchase, but beneficial owners are expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the direct participants or indirect participants through which such beneficial owners entered into the transaction. Transfers of ownership interests in the notes are to be accomplished by entries made on the books of participants acting on behalf of beneficial owners. Beneficial owners will not receive certificates representing their ownership interests in notes, except as provided below in Certificated Notes.

To facilitate subsequent transfers, all notes deposited with DTC are registered in the name of DTC s nominee, Cede & Co. The deposit of notes with DTC and their registration in the name of Cede & Co. effect no change in beneficial ownership. DTC has no knowledge of the actual beneficial owners of the notes. DTC s records reflect only the identity of the direct participants to whose accounts such notes are credited, which may or may not be the beneficial owners. The participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to direct participants, by direct participants to indirect participants and by direct participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

The laws of some jurisdictions may require that purchasers of securities take physical delivery of those securities in definitive form. Accordingly, the ability to transfer interests in the notes represented by a global note to those persons may be limited. In addition, because DTC can act only on behalf of its participants, who in turn act on behalf of persons who hold interests through participants, the ability of a person having an interest in notes represented by a global note to pledge or transfer those interests to persons or entities that do not participate in DTC s system, or otherwise to take actions in respect of such interest, may be affected by the lack of a physical definitive security in respect of such interest.

Book-Entry Format; Clearance and Settlement Procedures

Under the book-entry format, the paying agent will pay interest or principal payments to Cede & Co., as nominee of DTC. DTC will forward the payment to the direct participants, who will then forward the payment to the indirect participants (including Clearstream or Euroclear) or to you as the beneficial owner. You may experience some delay in receiving your payments under this system. Neither we, the trustee nor any paying agent has any direct responsibility or liability for the payment of principal or interest on the notes to owners of beneficial interests in the notes.

DTC is required to make book-entry transfers on behalf of its direct participants and is required to receive and transmit payments of principal, premium, if any, and interest on the notes. Any direct participant or indirect participant with which you have an account is similarly required to make book-entry transfers and to receive and transmit payments with respect to the notes on your behalf. We and the trustee have no responsibility for any aspect of the actions of DTC, Clearstream or Euroclear or any of their direct or indirect participants. In addition, we and the trustee have no responsibility or liability for any aspect of the records kept by DTC, Clearstream, Euroclear or any of their direct or indirect participants relating to or payments made on account of beneficial ownership interests in the notes or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests. We also do not supervise these systems in any way.

The trustee will not recognize you as a holder under the indenture, and you can only exercise the rights of a holder indirectly through DTC and its direct participants. DTC has advised us that it will only take action regarding a note if one or more of the direct participants to whom the note is credited directs DTC to take such action and only in respect of the portion of the aggregate principal amount of the notes as to which that participant or participants has or have given that direction. DTC can only act on behalf of its direct participants.

Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the notes unless authorized by a direct participant in accordance with DTC s procedures. Under its usual procedures, DTC will mail an omnibus proxy to us as soon as possible after the record date. The omnibus proxy assigns Cede & Co. s consenting or voting rights to those direct participants to whose accounts the notes are credited on the record date (identified in a listing attached to the omnibus proxy).

Clearstream or Euroclear will credit payments to the cash accounts of Clearstream customers or Euroclear participants in accordance with the relevant system s rules and procedures, to the extent received by its depositary. These payments will be subject to tax reporting in accordance with relevant U.S. tax laws and regulations. Clearstream or the Euroclear Operator, as the case may be, will take any other action permitted to be taken by a holder under the indenture on behalf of a Clearstream customer or Euroclear participant only in accordance with its relevant rules and procedures

and subject to its depositary s ability to effect those actions on its behalf through DTC.

S-8

Transfers Within and Among Book-Entry Systems

Initial settlement for the notes will be made in immediately available funds. Secondary market trading between DTC participants will occur in the ordinary way in accordance with DTC rules and will be settled in immediately available funds. Secondary market trading between Clearstream customers and/or Euroclear participants will occur in the ordinary way in accordance with the applicable rules and operating procedures of Clearstream and Euroclear and will be settled using the procedures applicable to conventional eurobonds in immediately available funds.

DTC will effect cross-market transfers between persons holding directly or indirectly through DTC, on the one hand, and directly or indirectly through Clearstream customers or Euroclear participants, on the other hand, in accordance with DTC rules on behalf of the relevant European international clearing system by its depositary. However, cross-market transactions will require delivery of instructions to the relevant European international clearing system by the counterparty in that system in accordance with its rules and procedures and within its established deadlines (European time). The relevant European international clearing system will, if the transaction meets its settlement requirements, instruct its depositary to effect final settlement on its behalf by delivering or receiving securities in DTC, and making or receiving payment in accordance with normal procedures for same-day funds settlement applicable to DTC. Clearstream customers and Euroclear participants may not deliver instructions directly to the depositaries.

Because of time-zone differences, credits of securities received in Clearstream or Euroclear resulting from a transaction with a DTC direct participant will be made during the subsequent securities settlement processing, dated the business day following the DTC settlement date. Those credits or any transactions in those securities settled during that processing will be reported to the relevant Clearstream customer or Euroclear participant on that business day. Cash received in Clearstream or Euroclear as a result of sales of securities by or through a Clearstream customer or a Euroclear participant to a DTC direct participant will be received with value on the DTC settlement date but will be available in the relevant Clearstream or Euroclear cash amount only as of the business day following settlement in DTC.

Although DTC, Clearstream and Euroclear have agreed to the foregoing procedures in order to facilitate transfers of debt securities among their respective participants, they are under no obligation to perform or continue to perform such procedures and such procedures may be discontinued at any time.

Certificated Notes

Unless and until they are exchanged, in whole or in part, for notes in definitive form in accordance with the terms of the notes, the notes may not be transferred except (1) as a whole by DTC to a nominee of DTC or (2) by a nominee of DTC to DTC or another nominee of DTC or (3) by DTC or any such nominee to a successor of DTC or a nominee of such successor.

We will issue certificated notes to each person that DTC identifies as the beneficial owner of the notes represented by the global notes upon surrender by DTC of the global notes if:

DTC notifies us that it is no longer willing or able to act as a depositary for the global notes, and we have not appointed a successor depositary within 90 days of that notice;

an Event of Default has occurred and is continuing, and DTC requests the issuance of certificated notes; or

we determine not to have the notes represented by a global note.

Neither we nor the trustee will be liable for any delay by DTC, its nominee or any direct or indirect participant in identifying the beneficial owners of the related notes. We and the trustee may conclusively rely on,

S-9

and will be protected in relying on, instructions from DTC or its nominee for all purposes, including with respect to the registration and delivery, and the principal amount, of the notes to be issued.

The Trustee

The trustee under the indenture is U.S. Bank National Association. The trustee or its affiliates may make loans to, accept deposits from and perform other routine banking services for us and our affiliates in the normal course of business.

S-10

UNDERWRITING

Subject to the terms and conditions contained in an underwriting agreement dated the date of this prospectus supplement, we have agreed to sell to each of the underwriters named below, severally, and each of the underwriters has severally agreed to purchase from us, the respective principal amounts of the notes listed opposite its name below.

	Principal Amount
Underwriter	of Notes
Merrill Lynch, Pierce, Fenner & Smith	
Incorporated	\$
J.P. Morgan Securities LLC	
Morgan Stanley & Co. LLC	
Wells Fargo Securities, LLC	
Citigroup Global Markets Inc.	
PNC Capital Markets LLC	
RBC Capital Markets, LLC	
TD Securities (USA) LLC	
Total	\$

Under the terms and conditions of the underwriting agreement, if the underwriters take any of the notes, then the underwriters are obligated to take and pay for all of the notes.

The notes are a new issue of securities with no established trading market and will not be listed on any securities exchange. The underwriters have advised us that they intend to make a market of the notes, but they have no obligation to do so and may discontinue market making at any time without providing notice. No assurance can be given as to the liquidity of any trading market for the notes.

The underwriters initially propose to offer the notes directly to the public at the price to public described on the cover page of this prospectus supplement and may offer the notes to certain dealers at a price that represents a concession not in excess of % of the principal amount of the notes. Any underwriter may allow, and any such dealer may reallow, a concession to certain other dealers not in excess of % of the principal amount of the notes. After the initial offering of the notes, the underwriters may from time to time vary the price to public and other selling terms.

We have also agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended, or to contribute to payments which the underwriters may be required to make in respect of any such liabilities.

In connection with the offering of the notes, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the notes. Specifically, the underwriters may overallot in connection with the offering of the notes, creating a syndicate short position. In addition, the underwriters may bid for, and purchase, notes in the open market to cover syndicate short positions or to stabilize the price of the notes. Finally, the underwriting syndicate may reclaim selling concessions allowed for distributing the notes in this offering, if the syndicate repurchases previously distributed notes in syndicate covering transactions, stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the notes above independent market levels. The underwriters

are not required to engage in any of these activities, and may end any of them at any time without notice.

Expenses associated with this offering (excluding the underwriting discount), to be paid by us, are estimated to be \$

S-11

We expect that delivery of the notes will be made to investors on or about , 2018, which will be the tenth business day following the date of this prospectus supplement (such settlement being referred to as T+10). Under Rule 15c6-1 under the Securities Exchange Act of 1934, as amended (the Exchange Act), trades in the secondary market are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade notes prior to two business days before the delivery of the notes hereunder may be required, by virtue of the fact that the notes initially settle in T+10, to specify an alternate settlement arrangement at the time of any such trade to prevent a failed settlement. Purchasers of the notes who wish to trade the notes prior to two business days before their date of delivery hereunder should consult their advisors.

The underwriters are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. The underwriters and their respective affiliates have in the past performed commercial banking, investment banking and advisory services for us from time to time for which they have received customary fees and reimbursement of expenses and may, from time to time, engage in transactions with and perform services for us in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses. In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve our securities and instruments. If the underwriters or their affiliates have a lending relationship with us, certain of those underwriters or their affiliates may hedge their credit exposure to us consistent with their customary risk management policies. Typically, the underwriters and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the notes offered hereby. Any such credit default swaps or short positions could adversely affect future trading prices of the notes offered hereby. The underwriters and certain of their affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

European Economic Area

The notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area (EEA). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, MiFID II); or (ii) a customer within the meaning of Directive 2002/92/EC (as amended, the Insurance Mediation Directive), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Directive 2003/71/EC (as amended, the Prospectus Directive). Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the PRIIPs Regulation) for offering or selling the notes or otherwise making them available to any retail investor in the EEA has been prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation. This prospectus supplement and the accompanying prospectus have been prepared on the basis that any offer of notes in any Member State of the EEA will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of notes. This prospectus supplement and the accompanying prospectus are not a prospectus for the purposes of the Prospectus Directive.

S-12

United Kingdom

Each underwriter has represented and agreed that:

it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the FSMA)) received by it in connection with the issue or sale of the notes in circumstances in which Section 21(1) of the FSMA does not apply to Valero Energy Corporation; and

it has complied with, and will comply with, all applicable provisions of the FSMA with respect to anything done by it in relation to the notes in, from or otherwise involving the United Kingdom.

Hong Kong

The notes may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), or (ii) to professional investors within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a prospectus within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), and no advertisement, invitation or document relating to the notes may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to notes which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Japan

The notes offered in this prospectus supplement have not been registered under the Securities and Exchange Law of Japan. The notes have not been offered or sold and will not be offered or sold, directly or indirectly, in Japan or to or for the account of any resident of Japan, except (i) pursuant to an exemption from the registration requirements of the Securities and Exchange Law and (ii) in compliance with any other applicable requirements of Japanese law.

Korea

The notes may not be offered, sold and delivered directly or indirectly, or offered or sold to any person for re-offering or resale, directly or indirectly, in South Korea or to any resident of South Korea except pursuant to the applicable laws and regulations of South Korea, including the Financial Investment Services and Capital Markets Act and the Foreign Exchange Transaction Law and the decrees and regulations thereunder. The notes have not been registered with the Financial Services Commission of South Korea for public offering in South Korea. Furthermore, the notes may not be re-sold to South Korean residents unless the purchaser of the notes complies with all applicable regulatory requirements (including but not limited to government approval requirements under the Foreign Exchange Transaction Law and its subordinate decrees and regulations) in connection with their purchase.

Singapore

This prospectus supplement and the accompanying prospectus have not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement, the accompanying

S-13

prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the notes may not be circulated or distributed, nor may the notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the SFA), (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to compliance with conditions set forth in the SFA.

Where the notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries—rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the notes pursuant to an offer made under Section 275 of the SFA except

to an institutional investor under Section 274 of the SFA or to a relevant person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA;

where no consideration is or will be given for the transfer; or

where the transfer is by operation of law.

Taiwan

The notes have not been and will not be registered with the Financial Supervisory Commission of Taiwan, the Republic of China (Taiwan), pursuant to relevant securities laws and regulations and may not be offered or sold in Taiwan through a public offering or in any manner which would constitute an offer within the meaning of the Securities and Exchange Act of Taiwan or would otherwise require registration with or the approval of the Financial Supervisory Commission of Taiwan. No person or entity in Taiwan has been authorized to offer, sell, give advice regarding or otherwise intermediate the offering or sale of the notes in Taiwan.

S-14

LEGAL MATTERS

Gibson, Dunn & Crutcher LLP, Houston, Texas will pass on the validity of the notes offered in this prospectus supplement. Davis Polk & Wardwell LLP, New York, New York will pass upon some legal matters for the underwriters in connection with this offering.

S-15

Prospectus

Valero Energy Corporation
One Valero Way
San Antonio, Texas 78249
(210) 345-2000

Senior Debt Securities

We may offer from time to time our senior debt securities. We will provide additional terms of our securities in one or more supplements to this prospectus. You should read this prospectus and the related prospectus supplement carefully before you invest in our securities. No person may use this prospectus to offer and sell our securities unless a prospectus supplement accompanies this prospectus.

Investing in our securities involves risks. See Risk Factors on page 4 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 17, 2018.

Table of Contents

	Page
About This Prospectus	1
Where You Can Find More Information	1
Cautionary Statement Concerning Forward-Looking Statements	2
Risk Factors	4
Valero Energy Corporation	4
Use of Proceeds	4
Ratios of Earnings to Fixed Charges	4
Description of Debt Securities	5
Plan of Distribution	12
Legal Matters	12
Experts	13

i

About This Prospectus

This prospectus is part of a registration statement that we have filed with the United States (U.S.) Securities and Exchange Commission (SEC) using a shelf registration process. Using this process, we may offer the securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of the securities we may offer. Each time we use this prospectus to offer securities, we will provide a prospectus supplement and, if applicable, a pricing supplement that will describe the specific terms of the offering. The prospectus supplement and any pricing supplement may also add to, update or change the information contained in this prospectus. Please carefully read this prospectus, the prospectus supplement and any pricing supplement together with the information contained in the documents we refer to under the heading. Where You Can Find More Information.

We have not authorized any person to provide you with any information or represent anything about us other than what is contained in this prospectus, any prospectus supplement and any pricing supplement. We do not take any responsibility for, and can provide no assurance as to the reliability of, any information that others may provide to you. You should not assume that the information in this prospectus or any document incorporated by reference is accurate as of any date other than the date on its front cover. Our business, financial condition, results of operations and prospects may have changed since the date indicated on the front cover of such documents. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities offered hereunder, nor does this prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

As used in this prospectus, the terms Valero, we, us and our may, depending upon the context, refer to Valero Ener Corporation, to one or more of its consolidated subsidiaries or to all of them taken as a whole.

Where You Can Find More Information

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You can read and copy these materials at the SEC s public reference room at 100 F Street, N.E., Washington, D.C. 20549. You can obtain information about the operation of the SEC s public reference room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet site that contains information we have filed electronically with the SEC, which you can access over the Internet at http://www.sec.gov. You can also obtain information about us at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005.

This prospectus is part of a registration statement we have filed with the SEC relating to the securities we may offer. As permitted by SEC rules, this prospectus does not contain all the information we have included in the registration statement and the accompanying exhibits and schedules we have filed with the SEC. You may refer to the registration statement, exhibits and schedules for more information about us and the securities. The registration statement, exhibits and schedules are available at the SEC s public reference room or through its Internet site.

We are incorporating by reference information we file with the SEC, which means that we are disclosing important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 (the Exchange Act) (excluding any information furnished and not filed with the SEC) until the termination of this offering. The documents we incorporate by reference are:

our annual report on Form 10-K for the year ended December 31, 2017;

the information included in our definitive proxy statement on Schedule 14A filed on March 21, 2018, to the extent incorporated by reference in Part III of our Annual Report on Form 10-K for the year ended December 31, 2017;

1

our quarterly report on Form 10-Q for the quarter ended March 31, 2018; and

our current reports on Form 8-K filed on February 7, 2018, as amended by Form 8-K/A on February 7, 2018, March 6, 2018, and May 8, 2018.

You may request a copy of these filings, other than an exhibit to these filings unless we have specifically incorporated that exhibit by reference into the filing, at no cost, by writing to us or calling us at the following address or telephone number:

Valero Energy Corporation

One Valero Way

San Antonio, Texas 78249

Attention: Investor Relations

Telephone: (210) 345-2744

Cautionary Statement Concerning Forward-Looking Statements

This prospectus and any accompanying prospectus supplement, including the information we incorporate by reference, include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 (the Securities Act) and Section 21E of the Exchange Act. You can identify our forward-looking statements by the words believe, intend. estimate. project, projection, predict, anticipate, expect, plan, budget, forecast. could, should, may, and similar expressions.

These forward-looking statements include, among other things, statements regarding:

future refining segment margins, including gasoline and distillate margins;

future ethanol segment margins;

expectations regarding feedstock costs, including crude oil differentials, and operating expenses;

anticipated levels of crude oil and refined petroleum product inventories;

our anticipated level of capital investments, including deferred costs for refinery turnarounds and catalyst, capital expenditures for environmental and other purposes, and joint venture investments, and the effect of those capital investments on our results of operations;

anticipated trends in the supply of and demand for crude oil and other feedstocks and refined petroleum products in the regions where we operate, as well as globally;

expectations regarding environmental, tax, and other regulatory initiatives; and

the effect of general economic and other conditions on refining, ethanol, and midstream industry fundamentals.

We based our forward-looking statements on our current expectations, estimates and projections about ourselves and our industry. We caution that these statements are not guarantees of future performance and involve risks, uncertainties and assumptions that we cannot predict. In addition, we based many of these forward-looking statements on assumptions about future events that may prove to be inaccurate. Accordingly, our actual results may differ materially from the future performance that we have expressed or forecast in the forward-looking statements. Differences between actual results and any future performance suggested in these forward-looking statements could result from a variety of factors, including the following:

acts of terrorism aimed at either our facilities or other facilities that could impair our ability to produce or transport refined petroleum products or receive feedstocks;

political and economic conditions in nations that produce crude oil or consume refined petroleum products;

2

demand for, and supplies of, refined petroleum products such as gasoline, diesel, jet fuel, petrochemicals, and ethanol;

demand for, and supplies of, crude oil and other feedstocks;

the ability of the members of the Organization of Petroleum Exporting Countries to agree on and to maintain crude oil price and production controls;

the level of consumer demand, including seasonal fluctuations;

refinery overcapacity or undercapacity;

our ability to successfully integrate any acquired businesses into our operations;