NuStar Energy L.P.
Form 10-K
February 23, 2017
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UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K
[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2016
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 1-16417
NUSTAR ENERGY L.P.
(Exact name of registrant as specified in its charter)

Delaware	74-2956831
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
19003 IH-10 West San Antonio, Texas	78257
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code (210) 918-2000
Securities registered pursuant to Section 12(b) of the Act: Common units representing limited partner interests listed on the New York Stock Exchange. 8.50% Series A Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units representing limited partner interests listed on the New York Stock Exchange.
Securities registered pursuant to 12(g) of the Act: None.
Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
Yes [X] No [ ]
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.
Yes [ ] No [X]
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 [X] 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 [X] No [ ]
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [ ]
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act:
Large accelerated filer [X] Accelerated filer [ ]

Non-accelerated filer [ ] (Do not check if a smaller reporting company) Smaller reporting company [ ]
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes [ ] No [X]
The aggregate market value of the common units held by non-affiliates was approximately $3,207 million based on the last sales price quoted as of June 30, 2016, the last business day of the registrant's most recently completed second quarter.
The number of common units outstanding as of January 31, 2017 was 78,650,995.

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PART I

Unless otherwise indicated, the terms “NuStar Energy L.P.,” “the Partnership,” “we,” “our” and “us” are used in this report to refer to NuStar Energy L.P., to one or more of our consolidated subsidiaries or to all of them taken as a whole.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION
In this Form 10-K, we make certain forward-looking statements, including statements regarding our plans, strategies, objectives, expectations, estimates, predictions, projections, assumptions, intentions and resources. While these forward-looking statements, and any assumptions upon which they are based, are made in good faith and reflect our current judgment regarding the direction of our business, actual results will almost always vary, sometimes materially, from any estimates, predictions, projections, assumptions or other future performance suggested in this report. These forward-looking statements can generally be identified by the words “anticipates,” “believes,” “expects,” “plans,” “intends,” “estimates,” “forecasts,” “budgets,” “projects,” “will,” “could,” “should,” “may” and similar expressions. These statements refl current views with regard to future events and are subject to various risks, uncertainties and assumptions. Please read Item 1A. “Risk Factors” for a discussion of certain of those risks, uncertainties and assumptions.

If one or more of these risks or uncertainties materialize, or if the underlying assumptions prove incorrect, our actual results may vary materially from those described in any forward-looking statement. Other unknown or unpredictable factors could also have material adverse effects on our future results. Readers are cautioned not to place undue reliance on this forward-looking information, which is as of the date of this Form 10-K. We do not intend to update these statements unless we are required by the securities laws to do so, and we undertake no obligation to publicly release the result of any revisions to any such forward-looking statements that may be made to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events.

ITEM 1., 1A. and 2. BUSINESS, RISK FACTORS AND PROPERTIES

OVERVIEW
NuStar Energy L.P. (NuStar Energy), a Delaware limited partnership, was formed in 1999 and completed its initial public offering of common units on April 16, 2001. Our common units are traded on the New York Stock Exchange (NYSE) under the symbol “NS,” and our 8.50% Series A Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units trade on the NYSE under the symbol “NSprA.” Our principal executive offices are located at 19003 IH-10 West, San Antonio, Texas 78257 and our telephone number is (210) 918-2000.
We are engaged in the transportation of petroleum products and anhydrous ammonia, the terminalling and storage of petroleum products and the marketing of petroleum products. The term “throughput” as used in this document generally refers to barrels of crude oil or refined product or tons of ammonia, as applicable, that pass through our pipelines, terminals or storage tanks.
We divide our operations into the following three reportable business segments: pipeline, storage and fuels marketing. As of December 31, 2016, our assets included approximately 8,700 miles of pipeline and 79 terminal and storage facilities that provide approximately 95 million barrels of storage capacity. The following table summarizes operating income for each of our business segments:

	Year Ended December 31,	
	2016	2015
	(Thousands of Dollars)	
Pipeline	$248,238	$270,349
Storage	$214,801	$217,818
Fuels marketing	$3,406	$13,507

We conduct our operations through our wholly owned subsidiaries, primarily NuStar Logistics, L.P. (NuStar Logistics) and NuStar Pipeline Operating Partnership L.P. (NuPOP). Our revenues include:

- tariffs for transporting crude oil, refined products and anhydrous ammonia through our pipelines;
- fees for the use of our terminal and storage facilities and related ancillary services; and
- sales of crude oil and refined petroleum products.

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We strive to increase unitholder value by:

- enhancing our existing assets through strategic internal growth projects that expand our business with current and new customers;
- pursuing strategic expansion projects by constructing new assets;
- improving our operations, including safety and environmental stewardship, cost control and asset reliability; and
- identifying acquisition targets that meet our financial and strategic criteria.

Our internet website address is http://www.nustarenergy.com. Information contained on our website is not part of this report. Our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K filed with (or furnished to) the Securities and Exchange Commission (SEC) are available on our website, free of charge, as soon as reasonably practicable after we file or furnish such material (select the “Investors” link, then the “SEC Filings” link). We also post our corporate governance guidelines, code of business conduct and ethics, code of ethics for senior financial officers and the charters of our board’s committees on our website free of charge (select the “Investors” link, then the “Corporate Governance” link).

Our governance documents are available in print to any unitholder that makes a written request to Corporate Secretary, NuStar Energy L.P., 19003 IH-10 West, San Antonio, Texas 78257 or corporatesecretary@nustarenergy.com.

RECENT DEVELOPMENTS

Martin Terminal Acquisition. On December 21, 2016, we acquired crude oil and refined product storage assets in Corpus Christi, TX for $95.7 million, including $2.1 million of capital expenditure reimbursements, from Martin Operating Partnership L.P. The assets acquired are in our storage segment and include 900,000 barrels of crude oil storage capacity, 250,000 barrels of refined product storage capacity and exclusive use of the Port of Corpus Christi’s new crude oil dock.

Please refer to Note 4 of the Notes to Consolidated Financial Statements in Item 8. “Financial Statements and Supplementary Data” for further discussion of our acquisitions.

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ORGANIZATIONAL STRUCTURE
Our operations are managed by NuStar GP, LLC, the general partner of our general partner. NuStar GP, LLC, a Delaware limited liability company, is a consolidated subsidiary of NuStar GP Holdings, LLC (NuStar GP Holdings) (NYSE: NSH).

The following chart depicts a summary of our organizational structure at December 31, 2016.

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SEGMENTS

Detailed financial information about our segments is included in Note 26 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data." The following map depicts our assets at December 31, 2016.

PIPELINE

Our pipeline operations consist of the transportation of refined petroleum products, crude oil and anhydrous ammonia. As of December 31, 2016, we owned and operated:

- refined product pipelines with an aggregate length of 3,140 miles and crude oil pipelines with an aggregate length of 1,230 miles in Texas, Oklahoma, Kansas, Colorado and New Mexico (collectively, the Central West System);
- a 1,920-mile refined product pipeline originating in southern Kansas and terminating at Jamestown, North Dakota, with a western extension to North Platte, Nebraska and an eastern extension into Iowa (the East Pipeline);
- a 450-mile refined product pipeline originating at Tesoro Corporation's (Tesoro) Mandan, North Dakota refinery and terminating in Minneapolis, Minnesota (the North Pipeline); and
- a 2,000-mile anhydrous ammonia pipeline originating at the Louisiana delta area that travels north through the Midwestern United States forking east and west to terminate in Nebraska and Indiana (the Ammonia Pipeline).

We charge tariffs on a per barrel basis for transporting refined products, crude oil and other feedstocks in our refined product and crude oil pipelines and on a per ton basis for transporting anhydrous ammonia in the Ammonia Pipeline.

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The following table lists information about our pipeline assets as of December 31, 2016:

Region / Pipeline System	Length	Tank Capacity	Throughput For the year ended December 31, 2016	2015
	(Miles)	(Barrels)	(Barrels/Day)	
Central West System:				
McKee System	2,276	—	178,373	172,590
Three Rivers System	373	—	79,502	74,361
Other	491	—	57,039	60,410
Central West Refined Products Pipelines	3,140	—	314,914	307,361
South Texas Crude System	319	2,157,000	124,363	179,734
Other	194	—	59,087	85,495
Eagle Ford System	513	2,157,000	183,450	265,229
McKee System	598	1,039,000	147,956	144,077
Ardmore System	119	824,000	60,775	62,326
Central West Crude Oil Pipelines	1,230	4,020,000	392,181	471,632
Total Central West System	4,370	4,020,000	707,095	778,993
Central East System:				
East Pipeline	1,920	5,228,000	143,446	132,005
North Pipeline	450	1,437,000	48,343	46,951
Ammonia Pipeline	2,000	—	29,243	35,829
Total Central East System	4,370	6,665,000	221,032	214,785
Total	8,740	10,685,000	928,127	993,778

Description of Pipelines

Central West System. The Central West System covers a total of 4,370 miles, including refined product and crude oil pipelines. The refined product pipelines have an aggregate length of 3,140 miles (Central West Refined Products Pipelines) and transport gasoline, distillates (including diesel and jet fuel), natural gas liquids and other products produced at the refineries to which they are connected, including Valero Energy Corporation’s (Valero Energy) McKee and Three Rivers refineries. The crude oil pipelines have an aggregate length of 1,230 miles (Central West Crude Oil Pipelines). Our crude oil pipelines transport crude oil and other feedstocks to the refineries to which they are connected, including Valero Energy’s McKee, Three Rivers and Ardmore refineries, or from the Eagle Ford Shale region to our North Beach marine terminal and to our customers’ refineries in Corpus Christi, Texas.

Central East System. The Central East System covers a total of 4,370 miles and consists of the East Pipeline, North Pipeline and Ammonia Pipeline.

The East Pipeline covers 1,920 miles and moves refined products and natural gas liquids north in pipelines ranging in diameter from 6 inches to 16 inches to NuStar Energy and third party terminals along the system and to receiving pipeline connections in Kansas. Shippers on the East Pipeline obtain refined petroleum products from refineries in Kansas, Oklahoma and Texas. The East Pipeline system includes 17 terminals, discussed below, with storage capacity of approximately 3.8 million barrels and two tank farms with storage capacity of approximately 1.4 million barrels at McPherson and El Dorado, Kansas.

The North Pipeline originates at Tesoro’s Mandan, North Dakota refinery and runs from west to east for approximately 450 miles to its termination in the Minneapolis, Minnesota area. The North Pipeline system includes four terminals, discussed below, with storage capacity of approximately 1.4 million barrels.

The East and North Pipelines include 21 truck-loading terminals through which refined petroleum products are delivered to storage tanks and then loaded into petroleum product transport trucks. Revenues earned at these terminals predominately relate to the volumes transported on the pipeline through fees included in the pipeline tariff. As a result, these terminals are included in this segment instead of the storage segment.

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The 2,000-mile Ammonia Pipeline originates in the Louisiana delta area, where it connects to three third-party marine terminals and three anhydrous ammonia plants on the Mississippi River. The line runs north through Louisiana and Arkansas into Missouri, where at Hermann, Missouri it splits and one branch goes east into Illinois and Indiana, while the other branch continues north into Iowa and then turns west into Nebraska. The Ammonia Pipeline is connected to multiple third-party-owned terminals, which include industrial facility delivery locations. Product is supplied to the pipeline from anhydrous ammonia plants in Louisiana and imported product delivered through the marine terminals. Anhydrous ammonia is primarily used as agricultural fertilizer. It is also used as a feedstock to produce other nitrogen derivative fertilizers and explosives.

Pipeline Operations

Revenues for the pipelines are based upon origin-to-destination throughput volumes traveling through our pipelines and their related tariff rates.

In general, shippers on our crude oil and refined product pipelines deliver petroleum products to our pipelines for transport to/from: (i) refineries that connect to our pipelines, (ii) third-party pipelines or terminals and (iii) NuStar Energy terminals for further delivery to marine vessels or pipelines. We charge our shippers tariff rates based on transportation from the origination point on the pipeline to the point of delivery.

Our pipelines are subject to federal regulation by one or more of the following governmental agencies: the Federal Energy Regulatory Commission (the FERC), the Surface Transportation Board (the STB), the Department of Transportation (DOT), the Environmental Protection Agency (EPA) and the Department of Homeland Security. Additionally, our pipelines are subject to the respective state jurisdictions. See “Rate Regulation” and “Environmental, Health, Safety and Security Regulation” below.

The majority of our pipelines are common carrier. Common carrier activities are those for which transportation through our pipelines is available to any shipper who requests such services and satisfies the conditions and specifications for transportation. Published tariffs are (i) filed with the FERC for interstate petroleum product shipments, (ii) filed with the relevant state authority for intrastate petroleum product shipments or (iii) regulated by the STB for our Ammonia Pipeline.

We operate our pipelines remotely through a computerized Supervisory Control and Data Acquisition system.

Demand for and Sources of Refined Products and Crude Oil

Throughputs on our Central West Refined Product Pipelines and the East and North Pipelines depend on the level of demand for refined products in the markets served by the pipelines and the ability and willingness of the refiners and marketers having access to the pipelines to supply that demand through our pipelines.

The majority of the refined products delivered through the Central West Refined Product Pipelines and the North Pipeline are gasoline and diesel fuel that originate at refineries connected to our pipelines. Demand for these products fluctuates as prices for these products fluctuate. Prices fluctuate for a variety of reasons including the overall balance in supply and demand, which is affected by general economic conditions, among other factors. Prices for gasoline and diesel fuel tend to increase in the warm weather months when people tend to drive automobiles more often and for longer distances.

Much of the refined products and natural gas liquids delivered through the East Pipeline and a portion of volumes on the North Pipeline are ultimately used as fuel for railroads, ethanol denaturant or in agricultural operations, including fuel for farm equipment, irrigation systems, trucks used for transporting crops and crop-drying facilities. Demand for refined products for agricultural use, and the relative mix of products required, is affected by weather conditions in the markets served by the East and North Pipelines. The agricultural sector is also affected by government agricultural policies and crop prices. Although periods of drought suppress agricultural demand for some refined products, particularly those used for fueling farm equipment, the demand for fuel for irrigation systems often increases during such times. The mix of refined products delivered for agricultural use varies seasonally, with gasoline demand peaking in early summer, diesel fuel demand peaking in late summer and propane demand higher in the fall.

Our refined product pipelines are also dependent upon adequate levels of production of refined products by refineries connected to the pipelines, directly or through connecting pipelines. The refineries are, in turn, dependent upon adequate supplies of suitable grades of crude oil. Certain of our Central West Refined Products Pipelines are subject to long-term throughput agreements with Valero Energy. Valero Energy refineries connected directly to our pipelines obtain crude oil from a variety of foreign and domestic sources. If operations at one of these refineries were discontinued or significantly reduced, it could have a material adverse effect on our operations, although we would endeavor to minimize the impact by seeking alternative customers for those pipelines.

The North Pipeline is heavily dependent on Tesoro’s Mandan, North Dakota refinery, which primarily runs North Dakota crude oil (although it has the ability to process other crude oils). If operations at the Tesoro refinery were interrupted, it could have a material adverse effect on our operations. The majority of the refined products transported through the East Pipeline are

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produced at three refineries located at McPherson and El Dorado, Kansas and Ponca City, Oklahoma, which are operated by CHS Inc., HollyFrontier Corporation and Phillips 66, respectively. The East Pipeline also has access to Gulf Coast supplies of products through third party connecting pipelines that receive products originating on the Gulf Coast.

Other than the Valero Energy refineries and the Tesoro refinery described above, if operations at any one refinery were discontinued, we believe (assuming unchanged demand for refined products in markets served by the refined product pipelines) that the effects thereof would be short-term in nature and our business would not be materially adversely affected over the long-term because such discontinued production could be replaced by other refineries or other sources.

Our crude oil pipelines are dependent on our customers' continued access to sufficient crude oil and sufficient demand for refined products for our customers to operate their refineries. The supply of crude oil production (domestic and foreign) could increase or decrease with the change in crude oil prices. Changes in crude oil prices could also affect the exploration and production of shale plays, which could impact crude oil pipelines serving those regions, such as our Eagle Ford System. However, many of our crude oil pipelines, including the McKee System, are the primary source of crude oil for our customers' refineries. Therefore, these "demand-pull" pipelines are less affected by changes in crude oil prices.

Demand for and Sources of Anhydrous Ammonia

The Ammonia Pipeline is one of two major anhydrous ammonia pipelines in the United States and the only one capable of receiving products from outside the United States directly into the system and transporting anhydrous ammonia into the nation's corn belt.

Throughputs on our Ammonia Pipeline depend on overall nitrogen fertilizer use, the price of natural gas, which is the primary component of anhydrous ammonia, and the level of demand for direct application of anhydrous ammonia as a fertilizer for crop production (Direct Application). Demand for Direct Application is dependent on the weather, as Direct Application is not effective if the ground is too wet or too dry.

Corn producers have fertilizer alternatives to anhydrous ammonia, such as liquid or dry nitrogen fertilizers. Liquid and dry nitrogen fertilizers are both less sensitive to weather conditions during application but are generally more costly than anhydrous ammonia. In addition, anhydrous ammonia has the highest nitrogen content of any nitrogen-derivative fertilizer.

Customers

The largest customer of our pipeline segment was Valero Energy, which accounted for approximately 37% of the total segment revenues for the year ended December 31, 2016. In addition to Valero Energy, our customers include integrated oil companies, refining companies, farm cooperatives, railroads and others. No other customer accounted for a significant portion of the total revenues of the pipeline segment for the year ended December 31, 2016.

Competition and Business Considerations

Because pipelines are generally the lowest-cost method for intermediate and long-haul movement of crude oil and refined petroleum products, our more significant competitors are common carrier and proprietary pipelines owned and operated by major integrated and large independent oil companies and other companies in the areas where we deliver products. Competition between common carrier pipelines is based primarily on transportation charges, quality of customer service and proximity to end users. Trucks may competitively deliver products in some of the areas served by our pipelines; however, trucking costs render that mode of transportation uncompetitive for longer hauls or larger volumes.

Most of our refined product pipelines and certain of our crude oil pipelines within the Central West System are physically integrated with and principally serve refineries owned by Valero Energy. As a result, we do not believe that we will face significant competition for transportation services provided to the Valero Energy refineries we serve.

Certain of our crude oil pipelines serve areas or refineries impacted by domestic shale oil production in the Eagle Ford, Permian Basin and Granite Wash regions. Our pipelines also face competition from other crude oil pipelines and truck transportation in these regions. However, that exposure is mitigated through our long-term contracts and minimum volume commitments with creditworthy customers.

The East and North Pipelines compete with an independent common carrier pipeline system owned by Magellan Midstream Partners, L.P. (Magellan) that operates approximately 100 miles east of and parallel to the East Pipeline and in close proximity to the North Pipeline. Certain of the East Pipeline's and the North Pipeline's delivery terminals are in direct competition with Magellan's terminals. Competition with Magellan is based primarily on transportation charges, quality of customer service and proximity to end users.

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Competitors of the Ammonia Pipeline include the other major anhydrous ammonia pipeline, owned by Magellan, which originates in Oklahoma and Texas and terminates in Minnesota. The competing pipeline has the same Direct Application demand and weather issues as the Ammonia Pipeline but is restricted to domestically produced anhydrous ammonia. Midwest production facilities, nitrogen fertilizer substitutes and barge and railroad transportation represent other forms of direct competition to the Ammonia Pipeline under certain market conditions.

STORAGE

Our storage segment consists of facilities that provide storage, handling and other services for petroleum products, crude oil, specialty chemicals and other liquids. As of December 31, 2016, we owned and operated:

- 40 terminal and storage facilities in the United States and one terminal in Nuevo Laredo, Mexico, with total storage capacity of 53.2 million barrels;
- A terminal on the island of St. Eustatius with tank capacity of 14.4 million barrels and a transshipment facility;
- A terminal located in Point Tupper, Canada with tank capacity of 7.8 million barrels and a transshipment facility; and
- Six terminals located in the United Kingdom and one terminal located in Amsterdam, the Netherlands, with total storage capacity of approximately 9.5 million barrels.

Description of Major Terminal Facilities

St. Eustatius. We own and operate a 14.4 million barrel petroleum storage and terminalling facility located on the island of St. Eustatius in the Caribbean, which is located at a point of minimal deviation from major shipping routes. This facility is capable of handling a wide range of petroleum products, including crude oil and refined products, and it can accommodate heavily laden ultra large crude carriers, or ULCCs, for loading and discharging crude oil and other petroleum products. A two-berth jetty, a two-berth monopile with platform and buoy systems, a floating hose station and an offshore single point mooring (SPM) buoy with loading and unloading capabilities serve the terminal's customers' vessels. The fuel oil and petroleum product facilities have in-tank and in-line blending capabilities, while the crude tanks have tank-to-tank blending capability and in-tank mixers. In addition to the storage and blending services at St. Eustatius, this facility has the flexibility to utilize certain storage capacity for both feedstock and refined products to support our atmospheric distillation unit, which is capable of handling up to 25,000 barrels per day of feedstock, ranging from condensates to heavy crude oil. We own and operate all of the berthing facilities at the St. Eustatius terminal. Separate fees apply for use of the berthing facilities, as well as associated services, including pilotage, tug assistance, line handling, launch service, emergency response services and other ship services.

We currently have strategic projects at the St. Eustatius terminal to make it more flexible and marketable. These projects include: (i) replacing the existing SPM with a refurbished SPM and the installation of two subsea pipelines from the SPM, which will give us the option to load and unload two different products at the SPM and segregate and store various grades of crude to and from the SPM, (ii) pipeline improvements and (iii) tank upgrades, repairs and rebuilds. Upon completion of these projects, we will also have the capability to load or unload three crude vessels at a time. We expect these projects to be completed by the end of 2017.

Refinery Storage Tanks. We own and operate crude oil storage tanks with an aggregate storage capacity of 10.9 million barrels that are physically integrated with and serve refineries owned by Valero Energy at Corpus Christi and Texas City, TX and Benicia, CA. Effective January 1, 2017, we lease our refinery storage tanks in exchange for a fixed fee, whereas these were previously throughput-based tanks.

St. James, Louisiana. Our St. James terminal, which is located on the Mississippi River near St. James, Louisiana, has a total storage capacity of 9.9 million barrels. The facility is located on almost 900 acres of land, some of which is undeveloped. The majority of the storage tanks and infrastructure are suited for light crude oil, with certain of the tanks capable of fuel oil or heated crude oil storage. Additionally, the facility has one barge dock and two ship docks. Our St. James terminal can receive product from gathering pipelines in the Gulf of Mexico and deliver to connecting pipelines that supply refineries in the Gulf Coast and Midwest. The St. James terminal also has two unit train rail facilities and a manifest rail facility, which are served by the Union Pacific Railroad and have a combined capacity of approximately 200,000 barrels per day.

Point Tupper. We own and operate a 7.8 million barrel terminalling and storage facility located at Point Tupper on the Strait of Canso, near Port Hawkesbury, Nova Scotia. This facility is the deepest independent, ice-free marine terminal on the North American Atlantic coast, with access to the East Coast, Canada and the Midwestern United States via the St. Lawrence Seaway and the Great Lakes system. With one of the premier jetty facilities in North America, the Point Tupper facility can accommodate heavily laden ULCCs for loading and discharging crude oil, petroleum products and petrochemicals. Crude oil and petroleum product movements at the terminal are fully automated. Separate fees apply for use of the jetty facility, as well

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as associated services, including pilotage, tug assistance, line handling, launch service, emergency response services and other ship services.

Linden, New Jersey. Our Linden terminal facility has two terminals that provide deep-water terminalling capabilities in the New York Harbor and primarily stores petroleum products, including gasoline, jet fuel and fuel oils. The two terminals have a total storage capacity of 4.6 million barrels and can receive and deliver products via ship, barge and pipeline. The terminal facility includes two docks. On January 2, 2015, we acquired full ownership of one of the terminals located at the Linden facility that we previously owned 50% through a joint venture.

Amsterdam. Our Amsterdam terminal has a total storage capacity of 3.8 million barrels. This facility is located at the Port of Amsterdam and primarily stores petroleum products, including gasoline, diesel and fuel oil. This facility has two docks for vessels and five docks for inland barges.

Corpus Christi North Beach. We own and operate a 3.2 million barrel crude oil storage and terminalling facility located at the Port of Corpus Christi in Texas. The facility supports our South Texas Crude System and our customer’s Harvest pipeline system. It also provides our customers with the flexibility to segregate and deliver crude oil and processed condensate. This facility has four docks, including one private dock, and can load crude oil onto ships simultaneously on all four docks at a maximum rate of 95,000 barrels per hour. This facility will have exclusive-use access to the Port of Corpus Christi’s new crude oil dock expected to be completed in 2017. The Corpus Christi North Beach terminal will have the capacity to move on average between 650,000 and 700,000 barrels per day and can accommodate Aframax-class vessels.

Terminal and Storage Facilities

The following table sets forth information about our terminal and storage facilities as of December 31, 2016:

Facility	Tank Capacity (Barrels)
Colorado Springs, CO	328,000
Denver, CO	110,000
Albuquerque, NM	251,000
Abernathy, TX	160,000
Amarillo, TX	269,000
Corpus Christi, TX	483,000
Corpus Christi, TX (North Beach)	3,244,000
Edinburg, TX	340,000
El Paso, TX (b)	419,000
Harlingen, TX	286,000
Laredo, TX	215,000
San Antonio, TX (c)	375,000
Southlake, TX	569,000
Nuevo Laredo, Mexico	35,000
Central West Terminals	7,084,000
Pittsburg, CA	398,000
Rosario, NM	166,000
Catoosa, OK	358,000
Houston, TX	86,000
Asphalt Terminals	1,008,000

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Facility	Tank Capacity (Barrels)
Jacksonville, FL	2,593,000
St. James, LA	9,917,000
Texas City, TX (c)	2,964,000
Gulf Coast Terminals	15,474,000
Blue Island, IL	690,000
Andrews AFB, MD (a)	75,000
Baltimore, MD	818,000
Piney Point, MD	5,402,000
Linden, NJ (c)	4,647,000
Paulsboro, NJ	74,000
Virginia Beach, VA (a)	41,000
North East Terminals	11,747,000
Los Angeles, CA	608,000
Selby, CA	3,074,000
Stockton, CA	816,000
Portland, OR	1,345,000
Tacoma, WA	391,000
Vancouver, WA (c)	774,000
West Coast Terminals	7,008,000
Corpus Christi, TX	4,030,000
Texas City, TX	3,141,000
Benicia, CA	3,683,000
Refinery Storage Tanks	10,854,000
Grays, England	1,958,000
Eastham, England	2,096,000
Runcorn, England	149,000
Grangemouth, Scotland	719,000
Glasgow, Scotland	353,000
Belfast, Northern Ireland	408,000
United Kingdom Terminals	5,683,000
St. Eustatius, the Netherlands	14,411,000
Amsterdam, the Netherlands	3,834,000
Point Tupper, Canada	7,778,000
Total Terminals and Storage Facilities	84,881,000

(a) Terminal facility also includes pipelines to U.S. government military base locations.
(b) We own a 67% undivided interest in the El Paso refined product terminal. The tank capacity represents the proportionate share of capacity attributable to our ownership interest.
(c) Location includes two terminal facilities.

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Storage Operations
Revenues for the storage segment include fees for tank storage agreements, where a customer agrees to pay for a certain amount of storage in a tank over a period of time (storage terminal revenues), and throughput agreements, where a customer pays a fee per barrel for volumes moving through our terminals (throughput terminal revenues). Our terminals also provide blending, additive injections, handling and filtering services for which we charge additional fees. We previously charged a fee for each barrel of crude oil and certain other feedstocks that we deliver to Valero Energy's Benicia, Corpus Christi West and Texas City refineries from our crude oil refinery storage tanks. Effective January 1, 2017, we lease these refinery storage tanks in exchange for a fixed fee. Certain of our facilities charge fees to provide marine services such as pilotage, tug assistance, line handling, launch service, emergency response services and other ship services.

Demand for Refined Petroleum Products and Crude Oil
The operations of our refined product terminals depend in large part on the level of demand for products stored in our terminals in the markets served by those assets. The majority of products stored in our terminals are refined petroleum products. Demand for our terminalling services will generally increase or decrease with demand for refined petroleum products, and demand for refined petroleum products tends to increase or decrease with the relative strength of the economy. In addition, the forward pricing curve can have an impact on demand. For example, in a contango market (when the price for future storage is expected to exceed current prices), demand for storage services will generally increase. As of December 31, 2016, almost all of our tank storage capacity is under contract.

Crude oil delivered to our St. James terminal through our unit train facilities, and crude oil delivered to our Corpus Christi North Beach terminal will generally increase or decrease with crude oil production rates in the Bakken and Eagle Ford shale plays, respectively. In addition, the market price relationship between various grades of crude oil impacts the demand for our unit train facilities at our St. James terminal, which can affect our profit sharing and volumes.

Customers
We provide storage and terminalling services for crude oil and refined petroleum products to many of the world's largest producers of crude oil, integrated oil companies, chemical companies, oil traders and refiners. In addition, our blending capabilities in our storage assets have attracted customers who have leased capacity primarily for blending purposes. The largest customer of our storage segment is Valero Energy, which accounted for approximately 21% of the total revenues of the segment for the year ended December 31, 2016. No other customer accounted for a significant portion of the total revenues of the storage segment for the year ended December 31, 2016.

Competition and Business Considerations
Many major energy and chemical companies own extensive terminal storage facilities. Although such terminals often have the same capabilities as terminals owned by independent operators, they generally do not provide terminalling services to third parties. In many instances, major energy and chemical companies that own storage and terminalling facilities are also significant customers of independent terminal operators. Such companies typically have strong demand for terminals owned by independent operators when independent terminals have more cost-effective locations near key transportation links, such as deep-water ports. Major energy and chemical companies also need independent terminal storage when their owned storage facilities are inadequate, either because of size constraints, the nature of the stored material or specialized handling requirements.

Independent terminal owners generally compete on the basis of the location and versatility of terminals, service and price. A favorably located terminal will have access to various cost-effective transportation modes both to and from the terminal. Transportation modes typically include waterways, railroads, roadways and pipelines.

Terminal versatility is a function of the operator's ability to offer complex handling requirements for diverse products. The services typically provided by the terminal include, among other things, the safe storage of the product at specified temperature, moisture and other conditions, as well as receipt at and delivery from the terminal, all of which must comply with applicable environmental regulations. A terminal operator's ability to obtain attractive pricing is often dependent on the quality, versatility and reputation of the facilities owned by the operator. Although many products require modest terminal modification, operators with versatile storage capabilities typically require less modification prior to usage, ultimately making the storage cost to the customer more attractive.

Our St. Eustatius and Point Tupper terminals have historically functioned as “break bulk” facilities, which handled imports of light crude from foreign sources into the U.S. to satisfy U.S. East Coast and Gulf Coast refinery demand for light crude. Light crude suppliers brought the crude from the Middle East and other foreign regions on very large ships, which are efficient for long routes. These large ships, due to draft constraints, are unable to navigate far enough inland to deliver directly to U.S.

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shores, which necessitates unloading these ships to storage and subsequent loading onto smaller ships that can bring the crude to the refiners, a process referred to as “break bulk.” Both terminals are well-located to provide this service. As the supply of light crude from various U.S. shale formations has increased, U.S. demand for foreign light crude oil, particularly on the U.S. Gulf Coast, has dropped. This reduced demand for imported light crude has, in turn, changed oil trade flow patterns around the world, thereby depressing the demand for break bulk services. At the same time, South American production of heavy crude has ramped up significantly. As demand for export of heavy crude out of South America has risen, so has the demand for “build bulk” services. In order to reduce costs and increase efficiencies for long routes to customers abroad, exporting producers need to consolidate their heavy oil cargos from the small ships used to move the heavy crude off shore to a large vessel that is more efficient for long routes, a process referred to as “build bulk.” Our St. Eustatius terminal’s location is well-suited to build bulk for South American producers headed to customers overseas, primarily in Asia.

We may face increased competition from new and/or expanding terminals near our locations, if those facilities offer either break bulk or build bulk services, as demanded by the applicable oil trade flows, now and in the future.

Our crude oil refinery storage tanks are physically integrated with and serve refineries owned by Valero Energy. Additionally, we have entered into various agreements with Valero Energy governing the usage of these tanks. As a result, we believe that we will not face significant competition for our services provided to those refineries.

FUELS MARKETING

Fuels Marketing Operations

Our fuels marketing operations involve the purchase of crude oil, fuel oil, bunker fuel, fuel oil blending components and other refined products for resale. These operations provide us the opportunity to generate additional gross margin while complementing the activities of our storage segment. We utilize storage assets, including our own terminals and rail unloading facilities, at our St. James, Texas City and St. Eustatius terminals. Rates charged by our storage segment to the fuels marketing segment are consistent with rates charged to third parties.

Within our fuels marketing operations, we purchase crude oil and refined petroleum products for resale. The results of operations for the fuels marketing segment depend largely on the margin between our cost and the sales prices of the products we market. Therefore, the results of operations for this segment are more sensitive to changes in commodity prices compared to the operations of the pipeline and storage segments.

Since our fuels marketing operations expose us to commodity price risk, we enter into derivative instruments to mitigate the effect of commodity price fluctuations on our operations. The derivative instruments we use consist primarily of commodity futures and swap contracts.

Customers

Fuels marketing customers include major integrated refiners and trading companies. Customers for our bunker fuel sales are mainly ship owners, including cruise line companies. No customer accounted for a significant portion of the total revenues of the fuels marketing segment for the year ended December 31, 2016.

Competition and Business Considerations

Our fuels marketing operations have numerous competitors, including large integrated refiners, marketing affiliates of other partnerships in our industry, as well as various international and domestic trading companies. In the sale of bunker fuel, we compete with ports offering bunker fuels that are along the route of travel of the vessel.

EMPLOYEES

As of December 31, 2016, we had 1,661 employees. We believe that we have a satisfactory relationship with our employees.

RATE REGULATION

Several of our pipelines are interstate common carrier pipelines, which are subject to regulation by the FERC under the Interstate Commerce Act (ICA) and the Energy Policy Act of 1992 (the EP Act). The ICA and its implementing regulations give the FERC authority to regulate the rates charged for service on interstate common carrier pipelines and generally require the rates and practices of interstate liquids pipelines to be just, reasonable, not unduly discriminatory and not unduly preferential. The ICA also requires tariffs that set forth the rates a common carrier pipeline charges for providing transportation services on its interstate common carrier liquids pipelines, as well as the rules and regulations governing these services, to be maintained on file with the FERC and posted publicly. The EP Act deemed certain rates in effect prior to its passage to be just and

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reasonable and limited the circumstances under which a complaint can be made against such “grandfathered” rates. The EP Act and its implementing regulations also allow interstate common carrier liquids pipelines to annually index their rates up to a prescribed ceiling level and require that such pipelines index their rates down to the prescribed ceiling level if the index is negative. In addition, the FERC retains cost-of-service ratemaking, market-based rates and settlement rates as alternatives to the indexing approach.

The Ammonia Pipeline is subject to regulation by the STB pursuant to the Interstate Commerce Act applicable to such pipelines
(which differs from the ICA applicable to interstate liquids pipelines). Under that regulation, the Ammonia Pipeline’s rates, classifications, rules and practices related to the interstate transportation of anhydrous ammonia must be reasonable and, in providing interstate transportation, the Ammonia Pipeline may not subject a person, place, port or type of traffic to unreasonable discrimination.

In addition to federal regulatory body oversight, various states, including Colorado, Kansas, Louisiana, North Dakota and Texas, maintain commissions focused on the rates and practices of common carrier pipelines offering services within their borders. Although the applicable state statutes and regulations vary, they generally require that intrastate pipelines publish tariffs setting forth all rates, rules and regulations applying to intrastate service, and generally require that pipeline rates and practices be just, reasonable and nondiscriminatory.

Shippers may challenge tariff rates, rules and regulations on our pipelines. In most instances, state commissions have not initiated investigations of the rates or practices of pipelines in the absence of shipper complaints. There are no pending challenges or complaints regarding our tariffs.

ENVIRONMENTAL, HEALTH, SAFETY AND SECURITY REGULATION

Our operations are subject to extensive federal, state and local environmental laws and regulations, in the U.S. and in the other countries in which we operate, including those relating to the discharge of materials into the environment, waste management, remediation, the characteristics and composition of fuels and pollution prevention measures, among others. Our operations are also subject to extensive federal, state and local health and safety laws and regulations, including those relating to worker and pipeline safety, pipeline integrity and operator qualifications. The principal environmental and safety risks associated with our operations relate to unauthorized or unpermitted emissions into the air, unauthorized releases into soil, surface water or groundwater, personal injury and property damage. Compliance with these environmental, health and safety laws, regulations and related permits increases our capital expenditures and operating expenses, and violation of these laws, regulations or permits could result in significant civil and criminal liabilities, injunctions or other penalties.

We have adopted policies, practices and procedures to address pollution control, pipeline integrity, operator qualifications, public relations and education, process safety management, risk management planning, hazard communication, emergency response planning, community right-to-know, occupational health and the handling, storage, use and disposal of hazardous materials. Our policies are designed to comply with applicable federal, state and local laws and regulations and to prevent material environmental or other damage, to ensure the safety of our pipelines, our employees, the public and the environment and to limit the financial liability that could result from such events. Future governmental action and regulatory initiatives could necessitate changes to operating permits and procedures, additional remedial actions or increased capital expenditures and operating costs. While we believe that we are in substantial compliance with the health, safety and environmental regulations applicable to us, risks of additional costs and liabilities are inherent within the industry, and there can be no assurances that significant costs and liabilities will not be incurred in the future.

It is possible that these statutes and the related regulations may be revised to be more restrictive in the future, necessitating additional capital expense to ensure our operations are in compliance. We are unable to estimate the effect on our financial condition or results of operations or the amount and timing of such required expenditures. In 2016, our capital expenditures attributable to compliance with environmental regulations were $14.3 million, and we currently project spending to be approximately $17.7 million in this regard in 2017.

Violations of any of the environmental, health, safety and security statutes and related regulations discussed below could result in significant costs and liabilities. It is possible that these statutes and the related regulations may be revised to be more restrictive in the future, necessitating additional capital expense to ensure our operations are in compliance. However, while compliance may affect our capital expenditures and operating expenses, we believe that the cost of such compliance will not have a material impact on either our competitive position or our financial condition or results of operations.

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RENEWABLE ENERGY AND ALTERNATIVE FUEL MANDATES

Several federal and state programs require, subsidize or encourage the purchase and use of renewable energy and alternative fuels, such as battery-powered engines, biodiesel, wind energy and solar energy. These programs may over time offset projected increases or reduce the demand for refined petroleum products, particularly gasoline, in certain markets. The increased production and use of biofuels may also create opportunities for additional pipeline transportation and additional blending opportunities within the storage segment, although that potential cannot be quantified at present. Other legislative changes may similarly alter the expected demand and supply projections for refined petroleum products in ways that cannot be predicted.

WATER

The Federal Water Pollution Control Act, as amended, also known as the Clean Water Act, as well as analogous or more stringent state and local statutes and regulations, impose restrictions and strict controls regarding the discharge of pollutants into state waters or waters of the United States. The discharge of pollutants into waters is generally prohibited, except in accordance with the terms of a permit issued by applicable federal or state authorities. The Oil Pollution Act further regulates the discharge of oil and the response to and liability for oil spills. The Rivers and Harbors Act also regulates pipeline crossings of waterways.

AIR

Discharges of pollutants into the air are restricted and controlled by the Federal Clean Air Act, as amended, and various applicable state and local statutes and regulations. These laws and related regulations generally require permits issued by applicable federal or state authorities for any discharge and also impose various monitoring and reporting requirements. Such laws and regulations may require a facility to obtain pre-approval for the construction or modification of certain projects or facilities expected to produce air emissions or result in the increase of existing air emissions, and obtain and strictly comply with the provisions of any air permits.

SOLID WASTE

The Federal Resource Conservation and Recovery Act (RCRA) and analogous or more stringent state and local statutes and regulations impose restrictions and strict controls regarding solid wastes, including hazardous wastes. We currently are not required to comply with a substantial portion of RCRA requirements because we do not operate any waste treatment, storage or disposal facilities. However, it is possible that additional wastes, which could include wastes currently generated during operations, will be designated as hazardous wastes. Hazardous wastes are subject to more rigorous and costly disposal requirements than are non-hazardous wastes.

HAZARDOUS SUBSTANCES

The Federal Comprehensive Environmental Response, Compensation and Liability Act, referred to as CERCLA or “Superfund,” and analogous or more stringent state and local statutes and regulations, impose restrictions and liability, including joint and several liability, without regard to fault or the legality of the original act, on some classes of persons that contributed to the release or threatened release of a hazardous substance into the environment. These classes of persons can include the owner or operator of the facility and those that disposed or arranged for the disposal of the hazardous substances. CERCLA also authorizes the EPA and, in some instances, third parties to act in response to threats that endanger public health or the environment and to seek recovery from the responsible classes of persons for the costs they incur. In the course of our ordinary operations, we may generate and arrange for the disposal of wastes that fall within CERCLA’s definition of a hazardous substance.

We currently own or lease, and have in the past owned or leased, properties where hazardous substances are being or have been handled. Although we believe that we have utilized operating and disposal practices that were standard in the industry at the time, substances may have been disposed of or released on or under the properties owned or leased by us or on or under other locations where these wastes have been taken for disposal. In addition, we acquired many of these properties from third parties, and we did not control those third parties' treatment and disposal or release of hazardous substances. These properties and substances disposed thereon may be subject to CERCLA, RCRA and analogous state and local statutes and regulations. Under these laws, we could be required to remove or remediate previously disposed substances (including substances disposed of or released by prior owners or operators), to clean up contaminated property (including contaminated groundwater) or to perform remedial operations to prevent future contamination. In addition, we may be exposed to joint and several liability under

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CERCLA for all or part of the costs required to clean up sites at which hazardous substances may have been disposed of or released into the environment.

While remediation of subsurface contamination is in process at several of our facilities, based on currently available information, we believe that the cost of these activities should not materially affect our financial condition or results of operations. The aggregate total cost of a given remediation project can be difficult to estimate, and, therefore, there can be no assurances that the future costs will not become material. Further, it is possible that these statutes and the related regulations may be revised to be more restrictive in the future, necessitating additional capital expense to ensure compliance. We are unable to estimate the effect on our financial condition or results of operations or the amount and timing of such required expenditures.

PIPELINE AND OTHER ASSET INTEGRITY AND SAFETY

Our pipeline, storage tank and other operations are subject to extensive federal, state and local statutes and regulations governing mechanical integrity and safety, including those in Title 49 of the United States Code and its implementing regulations. These statutes and regulations include requirements for safe operation, maintenance, testing and corrosion control, and qualification programs for operating personnel. In addition, other requirements can include reviewing and updating existing pipeline safety public education programs, providing information for the National Pipeline Mapping System, maintaining spill response plans, conducting spill response training, implementing integrity management programs and managing pipeline control centers.

SECURITY

We are also subject to Coast Guard and Department of Homeland Security Chemical Facility Anti-Terrorism Standards, which are designed to regulate the security of high-risk chemical facilities, and to the Transportation Security Administration's Pipeline Security Guidelines. We have implemented an inspection program designed to monitor and enforce compliance with all of these requirements. We believe that we are in material compliance with all applicable laws and regulations regarding the security of our facilities. While we are not currently subject to governmental standards for the protection of computer-based systems and technology from cyber threats and attacks, proposals to establish such standards are being considered by the U.S. Congress and by U.S. Executive Branch departments and agencies, including the Department of Homeland Security, and we may become subject to such standards in the future. We currently have our own cybersecurity programs and protocols in place; however, we cannot guarantee their effectiveness, and successful penetration of our critical systems could have a material effect on our operations and those of our customers.

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RISK FACTORS
RISKS RELATED TO OUR BUSINESS

We may not be able to generate sufficient cash from operations to enable us to pay quarterly distributions to our unitholders at current levels.
The amount of cash that we can distribute to our unitholders each quarter principally depends upon the amount of cash we generate from our operations, which fluctuates from quarter to quarter based on, among other things:
- throughput volumes transported in our pipelines;
- storage contract renewals or throughput volumes in our terminals and storage facilities;
- tariff rates and fees we charge and the revenue we realize for our services;
- demand for and supply of crude oil, refined products and anhydrous ammonia;
- the effect of worldwide energy conservation measures;
- our operating costs;
- the costs to comply with environmental, health, safety and security laws and regulations;
- weather conditions;
- domestic and foreign governmental regulations and taxes;
- prevailing economic conditions; and
- the results of our marketing, trading and hedging activities, which fluctuate depending upon the relationship between refined product prices and prices of crude oil and other feedstocks.

In addition, the amount of cash that we will have available for distribution depends on other factors, including:
- our debt service requirements and restrictions on distributions contained in our current or future debt agreements;
- the sources of cash used to fund our acquisitions;
- our capital expenditures;
- fluctuations in our working capital needs;
- issuances of debt and equity securities and ability to access the capital markets; and
- adjustments in cash reserves made by our general partner, in its discretion.

It is possible that one or more of the factors listed above may serve to reduce our available cash to such an extent that we could be rendered unable to pay distributions at the current level or at all in a given quarter. Furthermore, cash distributions to our unitholders depend primarily upon our cash flows, including cash flows from reserves and working capital borrowings, and not solely on profitability, which is affected by non-cash items, and we may make cash distributions during periods in which we record net losses and may not make cash distributions during periods in which we record net income.

Continued low crude oil prices could have an adverse impact on our results of operations, cash flows and ability to make distributions to our unitholders.
Since late 2015, the price of crude oil has been depressed, which has caused most crude oil producers to reduce their capital spending and drilling activity and narrow their focus to assets in the most cost-advantaged regions. On the other hand, refiners have benefited from lower crude prices, to the extent that lower feedstock price has been coupled with higher demand for certain refined products in some regional markets. While only a relatively small proportion of our total business is directly affected by the price of crude, a further protracted period of low crude oil prices and overall economic downturn could have a negative impact on our results of operations.

An extended period of reduced demand for or supply of crude oil and refined products could affect our results of operations and ability to make distributions to our unitholders.
Although we enter into throughput and deficiency agreements to protect against near-term fluctuations, our business is ultimately dependent upon the long-term demand for and supply of the crude oil and refined products we transport in our pipelines and store in our terminals. Any sustained decrease in demand for refined products in the markets our

pipelines and terminals serve that extends beyond the expiration of our existing throughput and deficiency agreements could result in a significant reduction in throughputs in our pipelines and storage in our terminals, which would reduce our cash flows and our ability to make distributions at current levels to our unitholders. Factors that could lead to a decrease in market demand include:

- a recession or other adverse economic condition that results in lower spending by consumers on gasoline, diesel and travel;
- higher fuel taxes or other governmental or regulatory actions that increase, directly or indirectly, the cost of gasoline;
- an increase in automotive engine fuel economy, whether as a result of a shift by consumers to more fuel-efficient vehicles or technological advances by manufacturers;
- the increased use of alternative fuel sources;

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- an increase in the market price of crude oil that leads to higher refined product prices, which may reduce demand for refined products and drive demand for alternative products. Market prices for crude oil and refined products, including fuel oil, are subject to wide fluctuation in response to changes in global and regional supply that are beyond our control, and increases in the price of crude oil may result in a lower demand for refined products that we transport, store and market, including fuel oil; and
- a decrease in corn acres planted for ethanol, which may reduce demand for anhydrous ammonia.

Similarly, any sustained decrease in the supply of crude oil and refined products in markets we serve could result in a significant reduction in throughputs in our pipelines and storage in our terminals, which would reduce our cash flows and our ability to make distributions at current levels to our unitholders. Factors that could lead to a decrease in supply to our pipelines and terminals include:

- prolonged periods of low prices for crude oil and refined products, which could lead to a decrease in exploration and development activity and reduced production in markets served by our pipelines and storage terminals;
- changes in the regulatory environment, governmental policies or taxation that directly or indirectly delay production or increase the cost of production of refined products; and
- actions taken by foreign oil and gas producing nations that impact prices for crude oil and refined products.

Our inability to develop and execute growth projects and acquire new assets could limit our ability to maintain and grow quarterly distributions to our unitholders.

Our ability to maintain and grow our distributions to unitholders depends on the growth of our existing businesses and strategic acquisitions. Decisions regarding new growth projects rely on numerous estimates, including, among other factors, predictions of future demand for our services, future supply shifts, crude oil production estimates, commodity price environments, economic conditions and potential changes in the financial condition of our customers. Our predictions of such factors could cause us to forego certain investments and to lose opportunities to competitors who make investments based on different predictions. If we are unable to acquire new assets, due either to high prices or a lack of attractive synergistic targets, our future growth will be limited. In addition, our future growth will be limited if we are unable to develop additional expansion projects, implement business development opportunities and finance such activities on economically acceptable terms, which could adversely impact our results of operations and cash flows and, accordingly, result in reduced distributions over time.

Failure to complete capital projects as planned could adversely affect our financial condition, results of operations and cash flows.

Delays or cost increases related to capital spending programs involving construction of new facilities (or improvements and repairs to our existing facilities) could adversely affect our ability to achieve forecasted operating results. Although we evaluate and monitor each capital spending project and try to anticipate difficulties that may arise, such delays or cost increases may arise as a result of factors that are beyond our control, including:

- non-performance or delay by, or disputes with, counterparties, vendors, suppliers, contractors or sub-contractors involved with a project;
- denial or delay in issuing requisite regulatory approvals and/or permits;
- protests and other activist interference with planned or in-process projects;
- unplanned increases in the cost of construction materials or labor;
- disruptions in transportation of modular components and/or construction materials;
- severe adverse weather conditions, natural disasters or other events (such as equipment malfunctions, explosions, fires or spills) affecting our facilities, or those of vendors and suppliers;
- shortages of sufficiently skilled labor, or labor disagreements resulting in unplanned work stoppages; or
- market-related increases in a project’s debt or equity financing costs.

We will incur financing costs during the planning and construction phases of our projects; however, the operating cash flows we expect these projects to generate will not materialize until sometime after the projects are completed, if at all. Additionally, our forecasted operating results from capital spending projects are based upon our projections of future market fundamentals that are not within our control, including changes in general economic conditions, the supply and demand of crude oil and refined products, availability to our customers of attractively priced alternative solutions for storage, transportation or supplies of crude oil and refined products and overall customer demand.

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If we are unable to retain current customers, renew existing contracts and maintain utilization of our pipeline and storage assets or we are unable to attract new customers and enter into new contracts, in either case at current or more favorable rates, our revenue and cash flows could be reduced to levels that could adversely affect our ability to make quarterly distributions to our unitholders.

Our revenue and cash flows are generated primarily from our customers' payments of fees under throughput contracts and storage agreements. Failure to renew or enter into new contracts or our storage customers' material reduction of utilization under existing contracts could result from many factors, including:

- continued low crude oil prices;
- a material decrease in the supply or price of crude oil;
- a material decrease in demand for refined products in the markets served by our pipelines and terminals;
- competition for customers from companies with comparable assets and capabilities;
- scheduled turnarounds or unscheduled maintenance at refineries we serve;
- operational problems or catastrophic events affecting our assets or a refinery we serve;
- environmental proceedings or other litigation that compel the cessation of all or a portion of the operations at our assets or a refinery we serve;
- increasingly stringent environmental, health, safety and security regulations;
- a decision by our current customers to redirect refined products transported in our pipelines to markets not served by our pipelines or to transport crude oil or refined products by means other than our pipelines; or
- a decision by our current customers to sell one or more of the refineries we serve to a purchaser that elects not to use our pipelines and terminals.

Competing midstream service providers, including certain major energy and chemical companies, possess, or have greater financial resources to acquire, assets better suited to meet customer demand, which could undermine our ability to obtain and retain customers or reduce utilization of our leased assets, which could reduce our revenues and cash flows, thereby reducing our ability to make our quarterly distributions to unitholders.

Our competitors include major energy and chemical companies, some of which have greater financial resources, more pipelines or storage terminals, greater capacity pipelines or storage terminals and greater access to supply than we do. Certain of our competitors also may have advantages in competing for acquisitions or other new business opportunities because of their financial resources and synergies in operations. As a consequence of increased competition in the industry, some of our customers may be reluctant to renew or enter into long-term contracts or contracts that provide for minimum throughput amounts in the future. Our inability to renew or replace our current contracts as they expire, to enter into contracts for newly acquired, constructed or expanded assets and to respond appropriately to changing market conditions could have a negative effect on our revenue, cash flows and ability to make quarterly distributions to our unitholders.

Our future financial and operating flexibility may be adversely affected by our significant leverage, any future downgrades of our credit ratings, restrictions in our debt agreements and conditions in the financial markets.

As of December 31, 2016, our consolidated debt was $3.1 billion. We also may be required to post cash collateral under certain of our hedging arrangements, which we expect to fund with borrowings under our revolving credit agreement. In addition to any potential direct financial impact of our debt, it is possible that any material increase to our debt or other negative financial factors may be viewed negatively by credit rating agencies, which could result in ratings downgrades and increased costs for us to access the capital markets. Any downgrades in our credit ratings in the future could result in increases to the interest rates on borrowings under our credit facilities and the 7.65% senior notes due 2018, significantly increase our capital costs, reduce our liquidity and adversely affect our ability to raise capital in the future.

Our revolving credit agreement contains restrictive covenants, such as limitations on indebtedness, liens, mergers, asset transfers and certain investing activities. In addition, the revolving credit agreement requires us to maintain, as of the end of each rolling period (consisting of any period of four consecutive fiscal quarters) a consolidated debt coverage ratio (consolidated debt to consolidated EBITDA, each as defined in the revolving credit agreement) not to exceed 5.00-to-1.00. Failure to comply with any of the revolving credit agreement restrictive covenants or this coverage ratio will result in a default and could result in acceleration of our obligations under this agreement and possibly other indebtedness.

Our accounts receivable securitization program contains various customary affirmative and negative covenants and default, indemnification and termination provisions, and the related receivables financing agreement (pursuant to which we are initial servicer and performance guarantor) provides for acceleration of amounts owed upon the occurrence of certain specified events.

Our debt service obligations, restrictive covenants and maturities resulting from our leverage may adversely affect our ability to finance future operations, pursue acquisitions, fund our capital needs and pay cash distributions to our unitholders at current levels. In addition, this leverage may make our results of operations more susceptible to adverse economic or operating

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conditions. For example, during an event of default under certain of our debt agreements, we would be prohibited from making cash distributions to our unitholders. Also, if any of our lenders file for bankruptcy or experience severe financial hardship, they may not honor their pro rata share of our borrowing requests under the revolving credit agreement, which may significantly reduce our available borrowing capacity and, as a result, materially adversely affect our financial condition and ability to pay distributions to our unitholders at current levels.

Increases in interest rates could adversely affect our business and the trading price of our units.
We have significant exposure to increases in interest rates. At December 31, 2016, we had approximately $3.1 billion of consolidated debt, of which $1.8 billion was at fixed interest rates and $1.3 billion was at variable interest rates. In addition, prior ratings downgrades on our existing indebtedness caused interest rates under our revolving credit agreement and our senior notes due 2018 to increase effective January 2013, and any future downgrades may cause interest rates on our variable interest rate debt to increase further. Additionally, at December 31, 2016, we had $600.0 million aggregate notional amount of interest rate swap arrangements, which increase our exposure to variable interest rates. As a result, our results of operations, cash flows and financial position could be materially adversely affected by significant changes in interest rates. In addition, we historically have funded our strategic capital expenditures and acquisitions from external sources, primarily borrowings under our revolving credit agreement or funds raised through debt or equity offerings. An increase in interest rates may negatively impact our ability to access the capital markets at economically attractive rates.

Furthermore, the market price of master limited partnership units, like other yield-oriented securities, may be affected by, among other factors, implied distribution yield. The distribution yield is often used by investors to compare and rank yield-oriented securities for investment decision-making purposes. Therefore, increases or decreases in interest rates may affect whether or not certain investors decide to invest in our units, and a rising interest rate environment could have an adverse impact on our unit price and our ability to issue additional equity or incur debt to expand or for other purposes or make cash distributions at intended levels.

Depending on conditions in the credit and capital markets at a given time, we may not be able to obtain funding on acceptable terms or at all, which may hinder or prevent us from meeting our future capital needs.
The domestic and global financial markets and economic conditions are from time to time disrupted and volatile due to a variety of factors, including low consumer confidence, high unemployment, geoeconomic and geopolitical issues, weak economic conditions and uncertainty in the financial services sector. In addition, there are fewer investors and lenders willing to invest in the debt and equity capital markets in issuances by master limited partnerships than there are for more traditionally structured corporations. As a result, the cost of raising capital in the debt and equity capital markets could increase substantially or the availability of funds from these markets could diminish. The cost of obtaining funds from the credit markets may increase as many lenders and institutional investors increase interest rates, enact tighter lending standards, refuse to refinance existing debt on similar terms or at all and reduce, or in some cases cease to provide, funding to borrowers.

In addition, lending counterparties under our existing revolving credit facility and other debt instruments may be unwilling or unable to meet their funding obligations. Due to these factors, we cannot be certain that new debt or equity financing will be available on acceptable terms. If funding is not available when needed, or is available only on unfavorable terms, we may be unable to execute our growth strategy, complete future acquisitions or construction projects or take advantage of other business opportunities, any of which could have a material adverse effect on our revenues and results of operations.

Our operations are subject to operational hazards and interruptions, and we cannot insure against and/or predict all potential losses and liabilities that might result therefrom.
Our operations and those of our customers and suppliers are subject to operational hazards and unforeseen interruptions such as natural disasters, adverse weather, accidents, fires, explosions, hazardous materials releases,

mechanical failures and other events beyond our control. These events might result in a loss of life or equipment, injury or extensive property damage, as well as an interruption in our operations or those of our customers or suppliers. In the event any of our facilities, or those of our customers or suppliers, suffer significant damage or are forced to shut down for a significant period of time, it may have a material adverse effect on our earnings, our other results of operations and our financial condition as a whole.

As a result of market conditions, premiums and deductibles for certain of our insurance policies have increased substantially and could escalate further; therefore, we may not be able to maintain or obtain insurance of the type and amount we desire at reasonable rates. Certain insurance coverage could become subject to broad exclusions, become unavailable altogether or become available only for reduced amounts of coverage and at higher rates. For example, our insurance carriers require broad exclusions for losses due to terrorist acts. If we were to incur a significant liability for which we are not fully insured, such a liability could have a material adverse effect on our financial position.

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We could be subject to damages or lose customers due to failure to maintain certain quality specifications or other claims related to the operation of our assets and the services we provide to our customers.
Certain of the products we store and transport are produced to precise customer specifications. If we fail to maintain the quality and purity of the products we receive and/or a product fails to perform in a manner consistent with the quality specifications required by the customer, the customer could seek replacement of the product or damages for costs incurred as a result of the product failing to perform as guaranteed. We also could face other claims by our customers if our assets do not operate as expected by our customers or our services otherwise do not meet our customers' expectations. A successful claim or series of claims against us could result in unforeseen expenditures and a loss of one or more customers.

We are exposed to counterparty credit risk. Nonpayment and nonperformance by our customers, vendors or derivative counterparties could reduce our revenues, increase our expenses and otherwise have a negative impact on our ability to conduct our business, operating results, cash flows and ability to make distributions to our unitholders.
Weak economic conditions and widespread financial stress could reduce the liquidity of our customers, vendors or counterparties, making it more difficult for them to meet their obligations to us. We are therefore subject to risks of loss resulting from nonpayment or nonperformance by our customers to whom we extend credit. In addition, nonperformance by vendors who have committed to provide us with critical products or services could raise our costs or interfere with our ability to successfully conduct our business. Furthermore, nonpayment by the counterparties to any of our outstanding derivatives could expose us to additional interest rate or commodity price risk. Any substantial increase in the nonpayment and nonperformance by our customers, vendors or counterparties could have a material adverse effect on our results of operations, cash flows and ability to make distributions to unitholders.

Potential future acquisitions and expansions, if any, may increase substantially the level of our indebtedness and contingent liabilities or otherwise change our capital structure, and we may be unable to integrate acquisitions and expansions effectively into our existing operations.
From time to time, we evaluate and acquire assets and businesses that we believe complement or diversify our existing assets and operations. Acquisitions may require us to raise a substantial amount of equity or incur a substantial amount of indebtedness. If we consummate any future material acquisitions, our capitalization and results of operations may change significantly, and unitholders will not have the opportunity to evaluate the economic, financial and other relevant information that we will consider in connection with any future acquisitions.

Acquisitions and business expansions involve numerous risks, including difficulties in the assimilation of the assets and operations of the acquired businesses, inefficiencies and difficulties that arise because of unfamiliarity with new assets and the businesses associated with them and with new geographic areas. Further, unexpected costs and challenges may arise whenever businesses with different operations or management are combined. Successful business combinations will require our management and other personnel to devote significant amounts of time to integrating the acquired businesses with our existing operations. These efforts may temporarily distract their attention from day-to-day business, the development or acquisition of new properties and other business opportunities. If we do not successfully integrate any past or future acquisitions, or if there is any significant delay in achieving such integration, our business and financial condition could be adversely affected.

Moreover, part of our business strategy includes acquiring additional assets that complement our existing asset base and distribution capabilities or provide entry into new markets. We may not be able to identify suitable acquisitions, or we may not be able to purchase or finance any acquisitions on terms that we find acceptable. Additionally, we compete against other companies for acquisitions, and we may not be successful in the acquisition of any assets or businesses appropriate for our growth strategy.

We do not own all of the land on which our pipelines and facilities have been constructed, and we are therefore subject to the possibility of increased costs or the inability to retain necessary land use.

We obtain the rights to construct and operate our pipelines, storage terminals and other facilities on land owned by third parties and governmental agencies. Many of our rights-of-way or other property rights are perpetual in duration while others are for a specific period of time. In addition, some of our facilities are located on leased premises. Our loss of property rights, through our inability to renew right-of-way contracts or leases or otherwise, could adversely affect our operations and cash flows available for distribution to unitholders.

In addition, the construction of additions to our existing assets may require us to obtain new rights-of-way or property rights prior to construction. We may be unable to obtain such rights-of-way or other property rights to connect new supplies to our existing pipelines, storage terminals or other facilities or to capitalize on other attractive expansion opportunities. Additionally, it may become more expensive for us to obtain new rights-of-way or other property rights or to renew existing rights-of-way or property rights. If the cost of obtaining new or renewing existing rights-of-way or other property rights increases, it may adversely affect our operations and cash flows available for distribution to unitholders.

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We may be unable to obtain or renew permits necessary for our operations, which could inhibit our ability to do business.

Our facilities operate under a number of federal, state and local permits, licenses and approvals with terms and conditions containing a significant number of prescriptive limits and performance standards in order to operate. These limits and standards require a significant amount of monitoring, recordkeeping and reporting in order to demonstrate compliance with the underlying permit, license or approval. Noncompliance or incomplete documentation of our compliance status may result in the imposition of fines, penalties and injunctive relief. In addition, public protest and responsive government intervention have recently made it more difficult for some energy companies to acquire the permits required to complete planned infrastructure projects. A decision by a government agency to deny or delay issuing a new or renewed permit, license or approval, or to revoke or substantially modify an existing permit, license or approval, could have a material adverse effect on our ability to continue operations and on our financial condition, results of operations, cash flows and ability to make distributions to our unitholders.

We may have liabilities from our assets that preexist our acquisition of those assets, but that may not be covered by indemnification rights we may have against the sellers of the assets.

In some cases, we have indemnified the previous owners and operators of acquired assets. Some of our assets have been used for many years to transport and store crude oil and refined products, and releases may have occurred in the past that could require costly future remediation. If a significant release or event occurred in the past, the liability for which was not retained by the seller, or for which indemnification by the seller is not available, it could adversely affect our financial position and results of operations. Conversely, if future releases or other liabilities arise from assets we have sold, we could incur costs related to those liabilities if the buyer possesses valid indemnification rights against us with respect to those assets.

Climate change legislation and other regulatory initiatives may decrease demand for the products we store, transport and sell and increase our operating costs.

In response to scientific studies asserting that emissions of certain "greenhouse gases" such as carbon dioxide and methane may be contributing to warming of the Earth's atmosphere, the U.S. Congress, European Union and other political bodies have considered legislation or regulation to reduce emissions of greenhouse gases. Passage of climate change legislation or other regulatory initiatives in areas in which we conduct business could result in changes to the demand for the products we store, transport and sell, and could increase the costs of our operations, including costs to operate and maintain our facilities, install new emission controls on our facilities, acquire allowances to authorize our greenhouse gas emissions, pay any taxes related to our greenhouse gas emissions or administer and manage a greenhouse gas emissions program. Even though we attempt to mitigate such lost revenues or increased costs through the contracts we sign with our customers, we may be unable to recover those revenues or mitigate the increased costs, and any such recovery may depend on events beyond our control, including the outcome of future rate proceedings before the FERC, the STB or other regulators and the provisions of any final legislation or regulations. Reductions in our revenues or increases in our expenses as a result of climate control or other initiatives could have adverse effects on our business, financial position, results of operations and prospects.

We operate a global business that exposes us to additional risk.

We operate a global business and a significant portion of our revenues come from our business outside of the United States. Our operations outside the United States may be affected by changes in trade protection laws, policies and measures, and other regulatory requirements affecting trade and investment, including the Foreign Corrupt Practices Act, the United Kingdom Bribery Act and other foreign laws prohibiting corrupt payments, as well as import and export regulations. Additionally, the decision by the United Kingdom to exit the European Union could adversely affect our operations in the United Kingdom and in Europe; however, the nature and magnitude of any such effects are not yet apparent. We also have assets in certain emerging markets, and the developing nature of these markets presents a number of risks. Deterioration of social, political, labor or economic conditions, including the increasing threat of terrorist organizations and drug cartels, in a country or region in which we do business as well as difficulties in staffing and managing foreign operations may adversely affect our operations or financial results.

Our operations are subject to federal, state and local laws and regulations, in the U.S. and in the other countries in which we operate, relating to environmental, health, safety and security that could require us to make substantial expenditures.

Our operations are subject to increasingly stringent federal, state and local environmental, health, safety and security laws and regulations. Transporting, storing and distributing hazardous materials, including petroleum products, entails the risk that these products may be released into the environment, potentially causing substantial expenditures for a response action, significant government penalties, liability to government agencies including for damages to natural resources, personal injury or property damages to private parties and significant business interruption. Further, certain of our pipeline facilities may be subject to the pipeline integrity and safety regulations of various federal and state regulatory agencies. In recent years, increased regulatory focus on pipeline integrity and safety has resulted in various proposed or adopted regulations. The implementation of these

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regulations, and the adoption of future regulations, could require us to make additional capital expenditures, including to install new or modified safety measures, or to conduct new or more extensive maintenance programs.

Current and future legislative action and regulatory initiatives could also result in changes to operating permits, material changes in operations, increased capital expenditures and operating costs, increased costs of the goods we transport and decreased demand for products we handle that cannot be assessed with certainty at this time. We may be required to make expenditures to modify operations or install pollution control equipment or release prevention and containment systems that could materially and adversely affect our business, financial condition, results of operations and liquidity if these expenditures, as with all costs, are not ultimately reflected in the tariffs and other fees we receive for our services.

We own or lease a number of properties that were used to transport, store or distribute products for many years before we acquired them; therefore, such properties were operated by third parties whose handling, disposal or release of products and wastes was not under our control. Environmental laws and regulations could impose obligations to conduct assessment or remediation efforts at our facilities, third-party sites where we take wastes for disposal, or where wastes have migrated. Environmental laws and regulations also may impose joint and several liability on us for the conduct of third parties or for actions that complied with applicable requirements when taken, regardless of negligence or fault. If we were to incur a significant liability pursuant to environmental, health, safety or security laws or regulations, such a liability could have a material adverse effect on our financial position.

Our interstate common carrier pipelines are subject to regulation by the FERC.
The FERC regulates the tariff rates and terms and conditions of service for interstate oil movements on our common carrier pipelines. FERC regulations require that these rates must be just and reasonable and that the pipeline not engage in undue discrimination or undue preference with respect to any shipper. Under the ICA, the FERC or shippers may challenge our pipeline tariff filings, including rates and terms and conditions of service. Further, other than for rates set under market-based rate authority, if a new rate is challenged by protest and investigated by the FERC, the FERC may suspend collection of such new rate for up to seven months. If such new rate is found to be unjust and unreasonable, the FERC may order refunds of amounts collected in excess of amounts generated by the just and reasonable rate determined by the FERC. A successful rate challenge could result in a common carrier paying refunds together with interest for the period that the rate was in effect. In addition, shippers may challenge by complaint tariff rates and terms and conditions of service even after the rates and terms and conditions of service are in effect. If the FERC, in response to such a complaint or on its own initiative, initiates an investigation of rates that are already in effect, the FERC may order a carrier to change its rates prospectively. If existing rates are challenged and are determined by the FERC to be in excess of a just and reasonable level, a shipper may obtain reparations for damages sustained during the two years prior to the date the shipper filed a complaint.

We use various FERC-authorized rate change methodologies for our interstate pipelines, including indexing, cost-of-service rates, market-based rates and settlement rates. Typically, we adjust our rates annually in accordance with the FERC indexing methodology, which currently allows a pipeline to change its rates within prescribed ceiling levels that are tied to an inflation index. For the five-year period beginning July 1, 2011, the index was measured by the year-over-year change in the Bureau of Labor’s producer price index for finished goods, plus 2.65%. For the five-year period beginning July 1, 2016, the current index is measured by the year-over-year change in the Bureau of Labor’s producer price index for finished goods, plus 1.23%. FERC’s determination of the index for the period beginning July 1, 2016 is on appeal at the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit), and the index for the five-year period beginning July 1, 2016 is therefore subject to change. Further, some of our newer projects that involved an open season include negotiated indexation rate caps.

In October 2016, the FERC initiated an Advance Notice of Proposed Rulemaking (ANOPR) to determine whether to require oil pipeline companies to file cost and revenue data for each of the company’s systems, with the definition of such systems also part of the ANOPR. Among other things, the ANOPR also proposed that index rate adjustments be capped or prohibited under certain circumstances and that ceiling rates be capped under certain circumstances.

These methodologies and the rulings of the D.C. Circuit could result in changes in our revenue that do not fully reflect changes in costs we incur to operate and maintain our pipelines. For example, our costs could increase more quickly or by a greater amount than the negotiated or, if adopted, FERC-mandated indexation rate cap.

The reporting of system-based cost and revenue data, if adopted, could lead to an increase in rate litigation at the FERC. Generally, shippers may protest rate increases made within the ceiling levels, but such protests must show that the portion of the rate increase resulting from application of the index is substantially in excess of the pipeline's change in costs from the previous year. However, if the index results in a negative adjustment, we are required to reduce any rates that exceed the new maximum allowable rate. In addition, changes in the index might not be large enough to fully reflect actual increases in our costs. If the FERC's rate-making methodologies change, any such change or new methodologies could result in rates that

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generate lower revenues and cash flow and could adversely affect our ability to make distributions at current levels to our unitholders and to meet our debt service requirements. Additionally, competition constrains our rates in various markets. As a result, we may from time to time be forced to reduce some of our rates to remain competitive.

Changes to FERC rate-making principles could have an adverse impact on our ability to recover the full cost of operating our pipeline facilities and our ability to make distributions at current levels to our unitholders.
In May 2005, the FERC issued a statement of general policy stating it will permit pipelines to include in their costs of service a tax allowance to reflect actual or potential tax liability on their public utility income attributable to all partnership or limited liability company interests, if the ultimate owner of the interest has an actual or potential income tax liability on such income. Whether a pipeline's owners have such actual or potential income tax liability will be reviewed by the FERC on a case-by-case basis. Although this policy is generally favorable for pipelines that are organized as pass-through entities, it still entails rate risk due to the case-by-case review requirement. This tax allowance policy and the FERC's application of that policy were appealed to the D.C. Circuit and, on May 29, 2007, the D.C. Circuit issued an opinion upholding the FERC's tax allowance policy.

In two proceedings involving SFPP, L.P., a refined products pipeline system, shippers again challenged the FERC's income tax allowance policy, alleging that it is unlawful for a pipeline organized as a tax-pass-through entity to be afforded an income tax allowance and that the income tax allowance is unnecessary because an allowance for income taxes for such pipelines is recovered indirectly through the rate of return on equity. The FERC rejected these shipper arguments in multiple orders. Petitions for review of the FERC's rulings on the income tax allowance were filed with the D.C. Circuit.

On July 1, 2016, the D.C. Circuit issued an opinion granting the shippers' petition for review of the FERC's rulings on the income tax allowance, finding that the FERC had failed to demonstrate that there was no double recovery of taxes for partnerships that receive an income tax allowance in addition to the return they receive through the rate of return on equity. On this basis, the D.C. Circuit has remanded the issue back to the FERC and the FERC has established an industrywide Notice of Inquiry regarding this issue. Because the extent to which an interstate oil pipeline organized as a partnership is entitled to an income tax allowance is subject to a case-by-case review at the FERC and is a matter that remains under litigation and FERC review, the level of income tax allowance to which we would ultimately be entitled in a cost-of-service rate review is not certain. How the FERC's income tax allowance policy is applied in practice to pipelines owned by publicly traded partnerships could impose limits on our ability to include a full income tax allowance in our cost of service.

The rates that we may charge on our interstate ammonia pipeline are subject to regulation by the STB.
The Ammonia Pipeline is subject to regulation under the ICA by the STB. Under that regulation the Ammonia Pipeline's rates, classifications, rules and practices related to the interstate transportation of anhydrous ammonia must be reasonable and, in providing interstate transportation, our ammonia pipeline may not subject a person, place, port or type of traffic to unreasonable discrimination.

Increases in natural gas and power prices could adversely affect our operating expenses and our ability to make distributions at current levels to our unitholders.
Power costs constitute a significant portion of our operating expenses. For the year ended December 31, 2016, our power costs equaled approximately $43.1 million, or 9.6% of our operating expenses for the year. We use mainly electric power at our pipeline pump stations and terminals, and such electric power is furnished by various utility companies that primarily use natural gas to generate electricity. Accordingly, our power costs typically fluctuate with natural gas prices, and increases in natural gas prices may cause our power costs to increase further. If natural gas prices increase, our cash flows may be adversely affected, which could adversely affect our ability to make distributions to our unitholders.

Terrorist attacks (and cyberattacks) and the threat of future attacks worldwide, as well as continued hostilities in the Middle East or other sustained military campaigns, may adversely impact our results of operations.
Increased security measures we have taken as a precaution against possible terrorist and cyberattacks have resulted in increased costs to our business. Uncertainty surrounding continued hostilities in the Middle East or other sustained military campaigns may affect our operations in unpredictable ways, including disruptions of crude oil supplies and markets for refined products, instability in the financial markets that could restrict our ability to raise capital and the possibility that infrastructure facilities could be direct targets of, or indirect casualties of, an attack.

The United States Department of Homeland Security has identified pipelines and other energy infrastructure assets as ones that might be specific targets of terrorist organizations or breaches of cybersecurity. These potential targets might include our pipeline systems, storage facilities or operating systems and may affect our ability to operate or control our pipeline and storage assets. Our systems and networks, as well as those of our customers, suppliers, vendors and counterparties, may become the target of cyberattacks or information security breaches, which in turn could result in the unauthorized release and misuse of confidential and proprietary information as well as disrupt our operations, damage our facilities or those of third parties or harm

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our reputation. Any failure or disruption of our systems could cause a substantial decrease in revenues, increased costs to respond or other financial loss, damage to reputation, increased regulation or litigation and/or inaccurate information reported from our operations. These developments may subject our operations to increased risks, as well as increased costs, and, depending on their ultimate magnitude, could have a material adverse effect on our business, results of operations and financial condition.

Hedging transactions may limit our potential gains or result in significant financial losses.
While intended to reduce the effects of volatile commodity prices, hedging transactions, depending on the hedging instrument used, may limit our potential gains if petroleum product prices were to rise substantially over the price established by the hedge. In addition, such transactions may expose us to the risk of financial loss in certain circumstances, including instances in which:

- the counterparties to our hedging contracts fail to perform under the contracts; or
- there is a change in the expected differential between the underlying price in the hedging agreement and the actual prices received.

The accounting standards regarding hedge accounting are complex and, even when we engage in hedging transactions that are effective economically, these transactions may not be considered effective for accounting purposes. Accordingly, our financial statements will reflect increased volatility due to these hedges, even when there is no underlying economic impact at that point. It is not possible for us to engage in a hedging transaction that completely mitigates our exposure to commodity prices, and our financial statements may reflect a gain or loss arising from an exposure to commodity prices for which we are unable to enter into an effective hedge.

Our purchase and sale of crude oil and petroleum products may expose us to trading losses and hedging losses, and non-compliance with our risk management policies could result in significant financial losses.
Although our marketing and trading of crude oil and petroleum products represents a small percentage of our overall business, these activities expose us to some commodity price volatility risk for the purchase and sale of crude oil and petroleum products, including distillates and fuel oil. We attempt to mitigate this volatility risk through hedging, but we are still exposed to basis risk and may be required to post cash collateral under our hedging arrangements. We also may be exposed to inventory and financial liquidity risk due to the inability to trade certain products or rising costs of carrying some inventories. Further, our marketing and trading activities, including any hedging activities, may cause volatility in our earnings. In addition, we will be exposed to credit risk in the event of non-performance by counterparties.

Our risk management policies may not eliminate all price risk since open trading positions will expose us to price volatility, and there is a risk that our risk management policies will not be complied with. Although we have designed procedures to anticipate and detect non-compliance, we cannot assure you that these steps will detect and prevent all violations of our trading policies and procedures, particularly if deception and other intentional misconduct are involved.

If we fail to maintain an effective system of internal controls, we may not be able to report our financial results accurately or prevent fraud, which could have a material and adverse impact on our financial condition, results of operations, cash flows and ability to make distributions to our unitholders.
Under Section 404 of the Sarbanes-Oxley Act of 2002, we are required to disclose material changes made in our internal controls over financial reporting on a quarterly basis and we are required to assess the effectiveness of our controls annually. Effective internal controls are necessary for us to provide reliable and timely financial reports, to prevent fraud and to operate successfully as a publicly traded limited partnership. Given the difficulties inherent in the design and operation of internal controls over financial reporting, we may be unable to maintain effective controls over our financial processes and reporting in the future or to comply with our obligations under Section 404.

For the foregoing reasons, we can provide no assurance as to our, or our independent registered public accounting firm's, future conclusions about the effectiveness of our internal controls, and we may incur significant costs in our efforts to comply with Section 404. Any failure to maintain effective internal controls over financial reporting will subject us to regulatory scrutiny and a loss of confidence in our reported financial information, which could have a material adverse effect on our financial condition, results of operations and cash flows and our ability to make distributions to our unitholders.

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RISKS INHERENT IN AN INVESTMENT IN US

We do not have the same flexibility as other types of organizations to accumulate cash and equity and protect against illiquidity in the future.
Unlike a corporation, our partnership agreement requires us to make quarterly distributions to our unitholders of all available cash, after taking into account reserves for commitments and contingencies, including capital and operating costs and debt service requirements. As a result, we do not accumulate equity in the form of retained earnings in a manner typical of many other forms of organizations, including most traditional public corporations. We are therefore more likely than those organizations to require issuances of additional capital to finance our growth plans, meet unforeseen cash requirements and service our debt.

Additionally, the value of our common units and other limited partner interests may decrease in correlation with any reduction in our cash distributions per unit. Accordingly, if we experience a liquidity shortage in the future, we may not be able to issue more equity to recapitalize.

Our cash distribution policy may limit our growth.
Consistent with the terms of our partnership agreement, we distribute our available cash to our unitholders each quarter. In determining the amount of cash available for distribution, our management sets aside cash reserves which we use to fund our growth capital expenditures. Additionally, we historically have relied upon external financing sources, including commercial borrowings and other debt and equity issuances, to fund our acquisition capital expenditures. Accordingly, to the extent we do not have sufficient cash reserves or are unable to finance growth externally, our cash distribution policy will significantly impair our ability to grow. In addition, to the extent we issue additional units in connection with any acquisitions or growth capital expenditures, the payment of distributions on those additional units may increase the risk that we will be unable to maintain or increase our current per unit distribution level.

NuStar GP Holdings may have conflicts of interest and limited fiduciary responsibilities, which may permit it to favor its own interests to the detriment of our unitholders.
NuStar GP Holdings currently indirectly owns our general partner and, as of December 31, 2016, an aggregate 13.0% common limited partner interest in us. Conflicts of interest may arise between NuStar GP Holdings and its affiliates, including our general partner, on the one hand, and us and our limited partners, on the other hand. As a result of these conflicts, the general partner may favor its own interests and the interests of its affiliates over the interests of our unitholders. These conflicts include, among others, the following situations:

- our general partner is allowed to take into account the interests of parties other than us, such as NuStar GP Holdings, in resolving conflicts of interest, which has the effect of limiting its fiduciary duty to our unitholders;
- our general partner may limit its liability and reduce its fiduciary duties, while also restricting the remedies available to unitholders. As a result of purchasing our units, unitholders have consented to some actions and conflicts of interest that might otherwise constitute a breach of fiduciary or other duties under applicable state law;
- our general partner determines the amount and timing of asset purchases and sales, capital expenditures, borrowings and issuances of additional limited partner interests and reserves, each of which can affect the amount of cash that is paid to our unitholders;
- our general partner determines in its sole discretion which costs incurred by NuStar GP Holdings and its affiliates are reimbursable by us;
- our general partner may cause us to pay the general partner or its affiliates for any services rendered on terms that are fair and reasonable to us or enter into additional contractual arrangements with any of these entities on our behalf;
- our general partner decides whether to retain separate counsel, accountants or others to perform services for us; and
- in some instances, our general partner may cause us to borrow funds in order to permit the payment of distributions.

Our partnership agreement gives the general partner broad discretion in establishing financial reserves for the proper conduct of our business, including interest payments. These reserves also affect the amount of cash available for distribution.

The general partner interest, the control of our general partner and the incentive distribution rights of our general partner may be transferred to a third party without unitholder consent.

Our general partner may transfer its general partner interest and/or its incentive distribution rights to a third party without the consent of our unitholders. Any new owner of our general partner would be in a position to replace the officers of the general partner with its own choices and to control the decisions made by such officers. If our general partner transfers its incentive distribution rights to a third party but retains its general partner interest, our general partner may not have the same incentive to grow our partnership and increase quarterly distributions to unitholders over time as it would if it had retained ownership of its incentive distribution rights.

We may issue an unlimited number of additional units, including units that are senior to the common units and pari passu with our 8.50% Series A Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units (the Preferred Units); issuing new units dilutes existing unitholders and may increase the aggregate distribution we are required to pay each quarter under the terms of our partnership agreement.
Our partnership agreement allows us to issue additional units and certain other equity securities on the terms and conditions established by our general partner and without the approval of other unitholders. There is no limit on the total number of units and other equity securities we may issue. If we issue additional units or other equity securities, the proportionate partnership interest of our existing common unitholders and the relative voting strength of each of the previously outstanding common units will decrease. Any additional issuance may increase the risk that we will be unable to maintain or increase our per common unit distribution level.

In addition, we may issue an unlimited number of units that are senior to the common units in right of distribution, liquidation and voting, including additional Preferred Units and any securities in parity with the Preferred Units without any vote of the holders of the Preferred Units (except where the cumulative distributions on the Preferred Units or any parity securities are in arrears and in certain other circumstances) and without the approval of our common unitholders. Our issuance of additional units or other equity interests of equal or senior rank will have the following effects:

- our unitholders' proportionate ownership interest in us will decrease;
- the amount of cash available for distribution on each unit may decrease;
- the ratio of taxable income to distributions may increase;
- the relative voting strength of each previously outstanding unit may be diminished; and
- the market price of our common units and Preferred Units may decline.

Additionally, although holders of the Preferred Units are entitled to limited voting rights, with respect to certain matters the Preferred Units generally vote separately as a class along with all other series of our parity securities that we may issue upon which like voting rights have been conferred and are exercisable. As a result, the voting rights of holders of Preferred Units may be significantly diluted, and the holders of such other series of parity securities that we may issue may be able to control or significantly influence the outcome of any vote. The issuance of additional units on parity with or senior to the Preferred Units (including additional Preferred Units of the same series) would dilute the interests of the holders of the Preferred Units, and any issuance of equity securities of any class or series that ranks on parity with the Preferred Units as to the payment of distributions and amounts payable upon a liquidation event (including additional Preferred Units of the same series) or equity securities with terms expressly made senior to the Preferred Units as to the payment of distributions and amounts payable upon a liquidation event or additional indebtedness could affect our ability to pay distributions on, redeem or pay the liquidation preference on the Preferred Units. Only the change of control conversion right relating to the Preferred Units set forth in our partnership agreement protects the holders of the Preferred Units in the event of a highly leveraged or other transaction, including a merger or the sale, lease or conveyance of all or substantially all of our assets or business, which might adversely affect the holders of the Preferred Units.

Future issuances and sales of parity securities, or the perception that such issuances and sales could occur, may cause prevailing market prices for the Preferred Units and our common units to decline and may adversely affect our ability to raise additional capital in the financial markets at times and prices favorable to us.

Furthermore, the payment of distributions on any additional units may increase the risk that we will not be able to make distributions at our prior per unit distribution levels. To the extent new units are senior to our common units, their issuance will increase the uncertainty of the payment of distributions on our common units.

If we do not pay distributions on our Preferred Units in any fiscal quarter, we will be unable to pay distributions on our common units until all unpaid Preferred Unit distributions have been paid, and our common unitholders are not entitled to receive distributions for such prior period.

The Preferred Units rank senior to our common units with respect to distribution rights and rights upon liquidation. If we do not pay the required distributions on our Preferred Units, we will be unable to pay distributions on our common units. Additionally, because distributions to our Preferred Unitholders are cumulative, we will have to pay all unpaid accumulated preferred distributions before we can pay any distributions to our common unitholders. Also, because distributions to our common unitholders are not cumulative, if we do not pay distributions on our common units with respect to any quarter, our common unitholders will not be entitled to receive distributions covering any prior periods. The preferences and privileges of the

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Preferred Units could adversely affect the market price for our common units, or could make it more difficult for us to sell our common units in the future.

Unitholders may not have limited liability if a court finds that unitholder action constitutes control of our business or that we have not complied with applicable statutes, which may have an impact on the cash we have available to make distributions.
Under Delaware law, unitholders could be held liable for our obligations to the same extent as a general partner if a court determined that actions of a unitholder constituted participation in the "control" of our business.

Under Delaware law, the general partner generally has unlimited liability for the obligations of the partnership, such as its debts and environmental liabilities, except for those contractual obligations of the partnership that are expressly made without recourse to the general partner. In addition, Section 17-607 of the Delaware Revised Uniform Limited Partnership Act (the Delaware Act) provides that, under some circumstances, a limited partner may be liable to us for the amount of a distribution for a period of three years from the date of the distribution.

Under certain circumstances, unitholders may have liability to repay distributions wrongfully distributed to them.
Under Section 17-607 of the Delaware Act, we may not make a distribution to our unitholders if the distribution would cause our liabilities to exceed the fair value of our assets. Liabilities to partners on account of their partnership interests and liabilities that are nonrecourse to the partnership are not counted for purposes of determining whether a distribution is permitted.

Delaware law provides that, for a period of three years from the date of an impermissible distribution, limited partners who received the distribution and who knew at the time of the distribution that it violated Delaware law will be liable to us for the repayment of the distribution amount. Likewise, upon the winding up of our partnership, in the event that (a) we do not distribute assets in the following order: (1) to creditors in satisfaction of our debts; (2) to partners and former partners in satisfaction of liabilities for distributions owed under our partnership agreement; (3) to partners for the return of their contributions; and finally (4) to the partners in the proportions in which the partners share in distributions and (b) a limited partner knows at the time that the distribution violated the Delaware Act, then such limited partner will be liable to repay the distribution for a period of three years from the impermissible distribution under Section 17-804 of the Delaware Act.

A purchaser of common or Preferred Units becomes a limited partner and is liable for the obligations of the transferring limited partner to make contributions to us that are known to such purchaser of common or Preferred Units at the time it became a limited partner and for unknown obligations, if the liabilities could be determined from our partnership agreement.

Unitholders may be required to sell their units to our general partner at an undesirable time or price.
If at any time less than 20% of the outstanding units of any class are held by persons other than the general partner and its affiliates, the general partner will have the right to acquire all, but not less than all, of those units at a price no less than their then-current market price. As a consequence, a unitholder may be required to sell his common units at an undesirable time or price. The general partner may assign this purchase right to any of its affiliates or to us.

The NYSE does not require a publicly traded limited partnership like us to comply with certain of its corporate governance requirements.
We currently list our common units on the NYSE under the symbol "NS" and our Preferred Units on the NYSE under the symbol "NSprA." Although our general partner has maintained a majority of independent directors on its board and all members of its board's audit committee, compensation committee and nominating/governance & conflicts committee are independent directors, because we are a publicly traded limited partnership, the NYSE does not require us to have a majority of independent directors on our general partner's board of directors or to have a compensation

committee or a nominating committee consisting of independent directors. Additionally, any future issuance of additional common or Preferred Units or other securities, including to affiliates, will not be subject to the NYSE's shareholder approval rules that apply to a corporation. Accordingly, the NYSE does not mandate the same protections for our unitholders as are required for certain corporations that are subject to all of the NYSE corporate governance requirements. See "Director Independence" under Item 13 of this annual report on Form 10-K for additional information regarding the independence of our general partner's directors and the committees of our general partner's board.

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TAX RISKS TO OUR UNITHOLDERS

If we were treated as a corporation for federal or state income tax purposes or we were otherwise subject to a material amount of entity-level taxation, then our cash available for distribution to unitholders would be substantially reduced. The anticipated after-tax benefit of an investment in our units depends largely on our being treated as a partnership for federal income tax purposes. We have not requested, and do not plan to request, a ruling from the Internal Revenue Service (the IRS) on this matter.

Despite the fact that we are a limited partnership under Delaware law, we will be treated as a corporation for federal income tax purposes unless we satisfy a “qualifying income” requirement. Based upon our current operations, we believe we satisfy the qualifying income requirement. Failing to meet the qualifying income requirement or a change in current law could cause us to be treated as a corporation for federal income tax purposes or otherwise subject us to taxation as an entity.

If we were treated as a corporation for federal income tax purposes, we would pay federal income tax on our taxable income at the corporate tax rate, which is currently a maximum of 35%, and would likely pay state and local income tax at varying rates. Distributions to unitholders who are treated as holders of corporate stock would generally be taxed again as corporate dividends (to the extent of our current and accumulated earnings and profits), and no income, gains, losses, deductions or credits would flow through to unitholders. Because a tax would be imposed upon us as a corporation, our distributable cash flow would be substantially reduced.

Moreover, changes in current state law may subject us to entity-level taxation by individual states. Because of widespread state budget deficits and other reasons, several states are evaluating ways to subject partnerships to entity-level taxation through the imposition of state income, franchise and other forms of taxation. Imposition of any such taxes or an increase in the existing tax rates would substantially reduce the cash available for distribution to our unitholders. Therefore, if we were treated as a corporation for federal income tax purposes or otherwise subjected to a material amount of entity-level taxation, there would be a material reduction in the anticipated cash flow and after-tax return to our unitholders, likely causing a substantial reduction in the value of our units.

The tax treatment of publicly traded partnerships or an investment in our units could be subject to potential legislative, judicial or administrative changes or differing interpretations, possibly applied on a retroactive basis.
The present U.S. federal income tax treatment of publicly traded partnerships, including us, or an investment in our units may be modified by administrative, legislative or judicial changes or differing interpretations at any time. From time to time, members of Congress propose and consider such substantive changes to the existing federal income tax laws that affect publicly traded partnerships. Further, final Treasury regulations under Section 7704(d)(1)(E) of the Code recently published in the Federal Register interpret the scope of qualifying income requirements for publicly traded partnerships by providing industry-specific guidance.

Any modification to the federal income tax laws may be applied retroactively and could make it more difficult or impossible for us to meet the exception for certain publicly traded partnerships to be treated as partnerships for federal income tax purposes. We are unable to predict whether any of these changes or other proposals will ultimately be enacted, including as a result of fundamental tax reform. Any such changes could negatively impact the value of an investment in our units.

A successful IRS contest of the federal income tax positions we take may adversely impact the market for our units, and the costs of any contest will reduce cash available for distribution to our unitholders.
The IRS may adopt positions that differ from the positions we take, even positions taken with the advice of counsel. It may be necessary to resort to administrative or court proceedings to sustain some or all of the positions we take. A court may not agree with all of the positions we take. Any contest with the IRS may affect adversely the taxable

income reported to our unitholders and the income taxes they are required to pay. As a result, any such contest with the IRS may materially and adversely impact the market for our units and the prices at which they trade. In addition, the costs of any contest between us and the IRS will be borne indirectly by our unitholders and our general partner because such costs will reduce our cash available for distribution.

Legislation applicable to partnership tax years beginning after 2017 alters the procedures for auditing large partnerships and for assessing and collecting taxes due (including penalties and interest) as a result of a partnership-level federal income tax audit. Under these rules, unless we are eligible to, and do, elect to issue revised Schedules K-1 to our partnership with respect to an audited and adjusted partnership tax return, the IRS may assess and collect taxes (including any applicable penalties and interest) directly from us in the year in which the audit is completed. If we are required to pay taxes, penalties and interest as a result of audit adjustments, cash available for distribution to our unitholders may be substantially reduced. In addition, because payment would be due for the taxable year in which the audit is completed, unitholders during that taxable year would bear the expense of the adjustment even if they were not unitholders during the audited tax year.

Even if unitholders do not receive any cash distributions from us, they will be required to pay taxes on their respective share of our taxable income.
Unitholders will be required to pay federal income taxes and, in some cases, state and local income taxes on their respective share of our taxable income, whether or not the unitholders receive cash distributions from us. Unitholders may not receive cash distributions from us equal to their respective share of our taxable income or even equal to the actual tax liability that results from their respective share of our taxable income.

The sale or exchange of 50% or more of our capital and profits interests, within a twelve-month period, will result in the termination of our partnership for federal income tax purposes.
We will be considered to have terminated for federal income tax purposes if there is a sale or exchange of 50% or more of the total interests in our capital and profits within a twelve-month period. For purposes of determining whether the 50% threshold has been met, multiple sales of the same interest will be counted only once.

Our termination for federal income tax purposes would, among other things, result in the closing of our taxable year for all unitholders, which would result in us filing two tax returns for one calendar year and could result in a significant deferral of depreciation deductions allowable in computing our taxable income. In the case of a unitholder reporting on a taxable year other than a calendar year, the closing of our taxable year may also result in more than twelve months of our taxable income or loss being includable in taxable income for the unitholder’s taxable year that includes our termination. Our termination would not affect our classification as a partnership for federal income tax purposes, but it would result in our being treated as a new partnership for U.S. federal income tax purposes following the termination. If we were treated as a new partnership, we would be required to make new tax elections and could be subject to penalties if we were unable to determine that a termination occurred. The IRS has announced a relief procedure whereby if a publicly traded partnership that has technically terminated requests, and the IRS grants, special relief, among other things, the partnership may be permitted to provide only a single Schedule K-1 to unitholders for the two short tax periods included in the year in which the termination occurs.

Tax gain or loss on the disposition of our units could be different than expected.
If a unitholder sells units, the selling unitholder will recognize a gain or loss equal to the difference between the amount realized and the unitholder’s tax basis in those units. Prior distributions to the selling unitholder in excess of the total net taxable income the unitholder was allocated for a unit, which decreased the unitholder’s tax basis in that unit, will, in effect, become taxable income to the selling unitholder if the unit is sold at a price greater than the unitholder’s tax basis in that unit, even if the price the unitholder receives is less than the unit’s original cost. A substantial portion of the amount realized, whether or not representing gain, may be ordinary income to the selling unitholder.

Tax-exempt entities and foreign persons face unique tax issues from owning common units that may result in adverse tax consequences to them.
Investment in common units by tax-exempt entities, such as individual retirement accounts (known as IRAs) and non-United States persons raises issues unique to them. For example, virtually all of our income allocated to organizations exempt from federal income tax, including IRAs and other retirement plans, will be unrelated business taxable income and will be taxable to them. Distributions to non-United States persons will be reduced by withholding taxes at the highest applicable effective tax rate, and non-United States persons will be required to file United States federal income tax returns and pay tax on their share of our taxable income.

We will treat each purchaser of our common units as having the same tax benefits without regard to the units purchased. The IRS may challenge this treatment, which could adversely affect the value of our common units.
Because we cannot match transferors and transferees of our common units, we will adopt depreciation and amortization positions that may not conform with all aspects of existing Treasury regulations. A successful IRS

challenge to those positions could adversely affect the amount of tax benefits available to unitholders. It also could affect the timing of these tax benefits or the amount of gain from a unitholder’s sale of common units and could have a negative impact on the value of our common units or result in audit adjustments to the unitholder’s tax returns.

Unitholders will likely be subject to state and local taxes and return filing requirements as a result of investing in our units.

In addition to federal income taxes, unitholders will likely be subject to other taxes, such as state and local income taxes, unincorporated business taxes and estate, inheritance or intangible taxes that are imposed by the various jurisdictions in which we do business or own property. Unitholders will likely be required to file state and local income tax returns and pay state and local income taxes in some or all of these various jurisdictions. Further, unitholders may be subject to penalties for failure to comply with those requirements. We may own property or conduct business in other states or foreign countries in the future. It is each unitholder’s responsibility to file all federal, state and local tax returns.

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We prorate our items of income, gain, loss and deduction between transferors and transferees of our common units each month based upon the ownership of our common units on the first day of each month, instead of on the basis of the date a particular common unit is transferred. The IRS may challenge this treatment, which could change the allocation of items of income, gain, loss and deduction among our common unitholders.
We prorate our items of income, gain, loss and deduction between transferors and transferees of our common units each month based upon the ownership of our common units on the first day of each month, instead of on the basis of the date a particular common unit is transferred. The U.S. Treasury Department and the IRS recently issued final regulations pursuant to which a publicly traded partnership may use a similar monthly simplifying convention to allocate tax items among transferor and transferee unitholders, although such tax items must be prorated on a daily basis and the regulations do not specifically authorize all aspects of the proration method we have currently adopted. If the IRS were to challenge our proration method, we may be required to change the allocation of items of income, gain, loss and deduction among our common unitholders.

We have adopted certain valuation methodologies in determining a common unitholder's allocations of income, gain, loss and deduction. The IRS may challenge these methods or the resulting allocations and such a challenge could adversely affect the value of our common units.
In determining the items of income, gain, loss and deduction allocable to our common unitholders, we must routinely determine the fair market value of our respective assets. Although we may from time to time consult with professional appraisers regarding valuation matters, we make fair market value estimates using a methodology based on the market value of our common units as a means to measure the fair market value of our respective assets. The IRS may challenge these valuation methods and the resulting allocations of income, gain, loss and deduction.

A successful IRS challenge to these methods or allocations could adversely affect the amount, character and timing of taxable income or loss being allocated to our common unitholders. It also could affect the amount of gain from our unitholders' sale of common units and could have a negative impact on the value of the common units or result in audit adjustments to our common unitholders' tax returns without the benefit of additional deductions.

A unitholder whose units are the subject of a securities loan (e.g., a loan to a "short seller" to cover a short sale of units) may be considered as having disposed of those units. If so, the unitholder would no longer be treated for tax purposes as a partner with respect to those units during the period of the loan and may recognize gain or loss from the disposition.
Because there are no specific rules governing the federal income tax consequences of loaning a partnership interest, a unitholder whose units are the subject of a securities loan may be considered as having disposed of the loaned units. In that case, the unitholder may no longer be treated for tax purposes as a partner with respect to those units during the period of the loan to the short seller and the unitholder may recognize gain or loss from such disposition. Moreover, during the period of the loan, any of our income, gain, loss or deduction with respect to those units may not be reportable by the unitholder and any cash distributions received by the unitholder as to those units could be fully taxable as ordinary income. Unitholders desiring to assure their status as partners and avoid the risk of gain recognition from a loan to a short seller are urged to consult a tax advisor to discuss whether it is advisable to modify any applicable brokerage account agreements to prohibit their brokers from borrowing their units.

Treatment of distributions on our Preferred Units as guaranteed payments for the use of capital creates a different tax treatment for the holders of Preferred Units than the holders of our common units.
The tax treatment of distributions on our Preferred Units is uncertain. We will treat the holders of Preferred Units as partners for tax purposes and will treat distributions on the Preferred Units as guaranteed payments for the use of capital that will generally be taxable to the holders of Preferred Units as ordinary income. Although a holder of Preferred Units could recognize taxable income from the accrual of such a guaranteed payment even in the absence of a contemporaneous distribution, we anticipate accruing and making the guaranteed payment distributions quarterly. Otherwise, the holders of Preferred Units are generally not anticipated to share in our items of income, gain, loss or

deduction, nor will we allocate any share of our nonrecourse liabilities to the holders of Preferred Units. If the Preferred Units were treated as indebtedness for tax purposes, rather than as guaranteed payments for the use of capital, distributions likely would be treated as payments of interest by us to the holders of Preferred Units.

A holder of Preferred Units will be required to recognize gain or loss on a sale of Preferred Units equal to the difference between the amount realized by such holder and tax basis in the Preferred Units sold. The amount realized generally will equal the sum of the cash and the fair market value of other property such holder receives in exchange for such Preferred Units. Subject to general rules requiring a blended basis among multiple partnership interests, the tax basis of a Preferred Unit will generally be equal to the sum of the cash and the fair market value of other property paid by the holder of Preferred Units to acquire such Preferred Unit. Gain or loss recognized by a holder of Preferred Units on the sale or exchange of a Preferred Unit held for more than one year generally will be taxable as long-term capital gain or loss. Because holders of Preferred Units will

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generally not be allocated a share of our items of depreciation, depletion or amortization, it is not anticipated that such holders would be required to recharacterize any portion of their gain as ordinary income as a result of the recapture rules.

Investment in the Preferred Units by tax-exempt investors, such as employee benefit plans and IRAs, and non-U.S. persons raises issues unique to them. Distributions to non-U.S. holders of Preferred Units will be subject to withholding taxes. If the amount of withholding exceeds the amount of U.S. federal income tax actually due, non-U.S. holders of Preferred Units may be required to file U.S. federal income tax returns in order to seek a refund of such excess. The treatment of guaranteed payments for the use of capital to tax exempt investors is not certain and such payments may be treated as unrelated business taxable income for federal income tax purposes. If you are a tax-exempt entity or a non-U.S. person, you should consult your tax advisor with respect to the consequences of owning our Preferred Units.

PROPERTIES

Our principal properties are described above under the caption “Segments,” and that information is incorporated herein by reference. We believe that we have satisfactory title to all of our properties. Although title to these properties is subject to encumbrances in some cases, such as customary interests generally retained in connection with the acquisition of real property, liens for current taxes and other burdens and easements, and restrictions or other encumbrances, including those related to environmental liabilities associated with historical operations, to which the underlying properties were subject at the time of acquisition by us or our predecessors, we believe that none of these burdens will materially detract from the value of these properties or from our interest in these properties or will materially interfere with their use in the operation of our business. In addition, we believe that we have obtained sufficient right-of-way grants and permits from public authorities and private parties for us to operate our business in all material respects as described in this report. We perform scheduled maintenance on all of our pipelines, terminals, crude oil tanks and related equipment and make repairs and replacements when necessary or appropriate. We believe that our pipelines, terminals, crude oil tanks and related equipment have been constructed and are maintained in all material respects in accordance with applicable federal, state and local laws and the regulations and standards prescribed by the American Petroleum Institute, the DOT and accepted industry practice.

ITEM 1B. UNRESOLVED STAFF COMMENTS
None.

ITEM 3. LEGAL PROCEEDINGS

We are named as a defendant in litigation and are a party to other claims and legal proceedings relating to our normal business operations, including regulatory and environmental matters. Due to the inherent uncertainty of litigation, there can be no assurance that the resolution of any particular claim or proceeding would not have a material adverse effect on our results of operations, financial position or liquidity.

We are insured against various business risks to the extent we believe is prudent; however, we cannot assure you that the nature and amount of such insurance will be adequate, in every case, to protect us against liabilities arising from future legal proceedings as a result of our ordinary business activity.

ENVIRONMENTAL AND SAFETY COMPLIANCE MATTERS

Our wholly owned subsidiary, Shore Terminals LLC (Shore), owns a refined product terminal in Portland, Oregon located adjacent to the Portland Harbor. The EPA has classified portions of the Portland Harbor, including the portion adjacent to our terminal, as a federal “Superfund” site due to sediment contamination (the Site). As previously disclosed, Shore and more than 90 other parties have been identified as potentially responsible parties (PRPs) in connection with the Site. Shore has been working with the other PRPs to attempt to negotiate an agreed allocation of clean-up costs and settlement of natural resource damage claims. Although the PRP group as a whole is likely to incur significant costs in connection with the Site, we have determined that: (1) this matter will not likely be material to our business or financial condition or have a material effect on our consolidated financial position; (2) Shore’s allocation among the PRP group is likely to be de minimus and we believe we have sufficient insurance coverage to respond to this potential liability; and (3) we do not believe that this matter will result in an assessment of monetary sanctions against Shore.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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PART II

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

Our common units are listed and traded on the New York Stock Exchange under the symbol "NS." At the close of business on February 8, 2017, we had 506 holders of record of our common units. The following table presents the high and low sales prices for our common units during the periods presented (composite transactions as reported by the New York Stock Exchange) and the amount, record date and payment date of the quarterly cash distributions on our common units with respect to such periods:

	Price Range per Common Unit		Cash Distributions		
	High	Low	Amount Per Common Unit	Record Date	Payment Date
Year 2016					
4th Quarter	$50.87	$43.41	$1.095	February 8, 2017	February 13, 2017
3rd Quarter	$50.72	$43.91	$1.095	November 8, 2016	November 14, 2016
2nd Quarter	$53.47	$37.90	$1.095	August 9, 2016	August 12, 2016
1st Quarter	$42.87	$25.65	$1.095	May 9, 2016	May 13, 2016
Year 2015					
4th Quarter	$52.24	$31.20	$1.095	February 8, 2016	February 12, 2016
3rd Quarter	$60.48	$42.00	$1.095	November 9, 2015	November 13, 2015
2nd Quarter	$68.10	$58.81	$1.095	August 7, 2015	August 13, 2015
1st Quarter	$63.78	$54.58	$1.095	May 8, 2015	May 14, 2015

Common Unit Distributions

Our partnership agreement requires that we distribute all "Available Cash" to our common limited partners and general partner each quarter, and this term is defined in the partnership agreement generally as cash on hand at the end of the quarter, plus certain permitted borrowings made subsequent to the end of the quarter, less cash reserves determined by our board of directors. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" for further information regarding our distributions.

General Partner Distributions

Our general partner is entitled to incentive distributions if the amount that we distribute with respect to any quarter exceeds specified target levels shown below:

	Percentage of Distribution	
Quarterly Distribution Amount per Common Unit	Common Unitholders	General Partner
Up to $0.60	98%	2%
Above $0.60 up to $0.66	90%	10%
Above $0.66	75%	25%

Our general partner's incentive distributions totaled $43.4 million and $43.2 million for each of the years ended December 31, 2016 and 2015, respectively. The general partner's share of our distributions for the years ended December 31, 2016 and 2015 was 13.0% in each year due to the impact of the incentive distributions.

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Preferred Unit Distributions
In the fourth quarter of 2016, we issued 9,060,000 of our 8.50% Series A Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units (the Preferred Units) representing limited partner interests at a price of $25.00 per unit. We used the net proceeds of $218.4 million from this issuance for general partnership purposes, including the funding of capital expenditures and repayments of outstanding borrowings under our revolving credit agreement.

Distributions on the Preferred Units are payable out of any legally available funds, accrue and are cumulative from the date of original issuance of the Preferred Units and are payable on the 15th day of each of March, June, September and December of each year (beginning on March 15, 2017) to holders of record on the first day of each payment month. The initial distribution rate on the Preferred Units to, but not including, December 15, 2021 is 8.50% per annum of the $25.00 liquidation preference per unit (equal to $2.125 per unit per annum). On and after December 15, 2021, distributions on the Preferred Units accumulate at a percentage of the $25.00 liquidation preference equal to an annual floating rate of the three-month LIBOR plus a spread of 6.766%. On January 27, 2017, we announced a Preferred Unit distribution of $0.64930556 per unit to be paid on March 15, 2017 to holders of record as of March 1, 2017 for distributions accumulated from the issuance date up to the payment date. The Preferred Units rank senior to all of our other classes of equity securities with respect to distribution rights and rights upon liquidation.

ITEM 6. SELECTED FINANCIAL DATA

The following table contains selected financial data derived from our audited financial statements.

	Year Ended December 31,				
	2016	2015	2014	2013 (a)	2012 (a)
	(Thousands of Dollars, Except Per Unit Data)				
Statement of Income Data:					
Revenues (b)	$1,756,682	$2,084,040	$3,075,118	$3,463,732	$5,945,736
Operating income (loss)	359,109	390,704	346,901	(19,121)	(18,168)
Income (loss) from continuing operations (c)	150,003	305,946	214,169	(185,509)	(166,001)
Income (loss) from continuing operations per common unit (c)	1.27	3.29	2.14	(2.89)	(2.79)
Cash distributions per unit applicable to common limited partners	4.380	4.380	4.380	4.380	4.380

	December 31,				
	2016	2015	2014	2013	2012
	(Thousands of Dollars)				
Balance Sheet Data:					
Property, plant and equipment, net	$3,722,283	$3,683,571	$3,460,732	$3,310,653	$3,238,460
Total assets	5,030,545	5,125,525	4,918,796	5,032,186	5,613,089
Long-term debt	3,014,364	3,055,612	2,749,452	2,655,553	2,124,582
Total partners' equity	1,611,617	1,609,844	1,716,210	1,903,794	2,584,995

(a) The losses for the years ended December 31, 2013 and 2012 are mainly due to goodwill impairment and other asset impairment charges.

(b) The decline in revenues from 2012 to 2013 is due to reductions in our fuels marketing segment mainly resulting from the disposition of our asphalt business. Further declines in revenues from 2013 through 2016 are mainly from a reduction in marketing activity and lower commodity prices.

(c) Includes the impact of a $58.7 million non-cash impairment charge on the Axeon term loan in 2016 and a $56.3 million non-cash gain associated with the Linden terminal acquisition in 2015.

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

The following review of our results of operations and financial condition should be read in conjunction with "Cautionary Statement Regarding Forward-Looking Information," Items 1., 1A. and 2. "Business, Risk Factors and Properties" and Item 8. "Financial Statements and Supplementary Data" included in this report.

OVERVIEW

NuStar Energy L.P. (NYSE: NS) is engaged in the transportation of petroleum products and anhydrous ammonia, the terminalling and storage of petroleum products and the marketing of petroleum products. Unless otherwise indicated, the terms "NuStar Energy," "NS," "the Partnership," "we," "our" and "us" are used in this report to refer to NuStar Energy L.P one or more of our consolidated subsidiaries or to all of them taken as a whole. NuStar GP Holdings, LLC (NuStar GP Holdings or NSH) (NYSE: NSH) owns our general partner, Riverwalk Logistics, L.P., and owns an approximate 13% common limited partner interest in us as of December 31, 2016. Our Management's Discussion and Analysis of Financial Condition and Results of Operations is presented in seven sections:

- Overview
- Results of Operations
- Trends and Outlook
- Liquidity and Capital Resources
- Related Party Transactions
- Critical Accounting Policies
- New Accounting Pronouncements

Recent Developments

Martin Terminal Acquisition. On December 21, 2016, we acquired crude oil and refined product storage assets in Corpus Christi, TX for $95.7 million, including $2.1 million of capital expenditure reimbursements, from Martin Operating Partnership L.P. (the Martin Terminal Acquisition). The assets acquired are in our storage segment and include 900,000 barrels of crude oil storage capacity, 250,000 barrels of refined product storage capacity and exclusive use of the Port of Corpus Christi's new crude oil dock. We funded the acquisition with borrowings under our revolving credit agreement. The acquired assets, which are adjacent to our existing Corpus Christi North Beach terminal, increase our storage capacity in the Corpus Christi region and have direct connectivity to Eagle Ford crude oil production. Additionally, we expect to benefit from our increased presence in the Corpus Christi region, which is a strategic hub for us.

Employee Transfer from NuStar GP, LLC. On March 1, 2016, NuStar GP, LLC, the general partner of our general partner and a wholly owned subsidiary of NuStar GP Holdings, transferred and assigned to NuStar Services Company LLC (NuStar Services Co), a wholly owned subsidiary of NuStar Energy, all of NuStar GP, LLC's employees and related benefit plans, programs, contracts and policies (the Employee Transfer). As a result of the Employee Transfer, we pay employee costs directly and sponsor the long-term incentive plan and other employee benefit plans. Please refer to the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for the following: Note 18 for further discussion of the Employee Transfer and our related party agreements, Note 23 for a discussion of our employee benefit plans and Note 24 for a discussion of our long-term incentive plan.

Linden Acquisition. On January 2, 2015, we acquired full ownership of ST Linden Terminal, LLC (Linden), which owns a refined products terminal in Linden, NJ with 4.3 million barrels of storage capacity, for $142.5 million (the Linden Acquisition). Prior to the Linden Acquisition, Linden operated as a joint venture between us and Linden Holding Corp., with each party owning 50%. On the acquisition date, we remeasured our existing 50% equity investment in Linden to its fair value of $128.0 million and we recognized a gain of $56.3 million in "Other (expense) income, net" in the consolidated statements of income for the year ended December 31, 2015. Please refer to Note 4 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion of the Linden Acquisition.

Discontinued Operations. In 2014, we divested our terminals in Mobile, AL, Wilmington, NC and Dumfries, VA and our 75% interest in our facility in Mersin, Turkey.

Axeon. On February 26, 2014, we sold our remaining 50% ownership interest in NuStar Asphalt LLC to Lindsay Goldberg LLC, a private investment firm (the 2014 Asphalt Sale). Effective February 27, 2014, NuStar Asphalt LLC changed its name to Axeon Specialty Products LLC (Axeon). Upon completion of the 2014 Asphalt Sale, the parties agreed to: (i) convert the $250.0 million unsecured revolving credit facility provided by us to Axeon (the NuStar JV Facility) from a revolving credit

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agreement into a $190.0 million term loan (the Axeon Term Loan); (ii) terminate the terminal services agreements with respect to our terminals in Rosario, NM, Catoosa, OK and Houston, TX; (iii) amend the terminal services agreements for our terminals in Baltimore, MD and Jacksonville, FL; and (iv) transfer ownership of both the Wilmington, NC and Dumfries, VA terminals to Axeon. In 2016, we recognized an impairment charge on the Axeon Term Loan of $58.7 million which is included in "Other (expense) income, net" in the consolidated statements of income. Please refer to Note 8 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for additional information on the Axeon Term Loan.

Operations

We conduct our operations through our subsidiaries, primarily NuStar Logistics, L.P. (NuStar Logistics) and NuStar Pipeline Operating Partnership L.P. (NuPOP). Our operations are divided into three reportable business segments: pipeline, storage and fuels marketing. For a more detailed description of our segments, please refer to "Segments" under Item 1. "Business."

Pipeline. We own 3,140 miles of refined product pipelines and 1,230 miles of crude oil pipelines, as well as approximately 4.0 million barrels of storage capacity, which comprise our Central West System. In addition, we own 2,370 miles of refined product pipelines, consisting of the East and North Pipelines, and a 2,000 mile ammonia pipeline (the Ammonia Pipeline), which comprise our Central East System. The East and North Pipelines have storage capacity of approximately 6.7 million barrels.

Storage. We own terminals and storage facilities in the United States, Canada, Mexico, the Netherlands, including St. Eustatius in the Caribbean, and the United Kingdom (UK), with approximately 84.9 million barrels of storage capacity.

Fuels Marketing. Within our fuels marketing operations, we purchase crude oil and refined petroleum products for resale. The results of operations for the fuels marketing segment depend largely on the margin between our cost and the sales prices of the products we market. Therefore, the results of operations for this segment are more sensitive to changes in commodity prices compared to the operations of the pipeline and storage segments. We enter into derivative contracts to attempt to mitigate the effects of commodity price fluctuations. The derivative instruments we use consist primarily of commodity futures and swap contracts. Not all of our derivative instruments qualify for hedge accounting treatment under U.S. generally accepted accounting principles. In such cases, our earnings for a period may include the gain or loss related to derivative instruments without including the offsetting effect of the hedged item, which could result in greater earnings volatility.

Factors That Affect Results of Operations

The following factors affect the results of our operations:

- company-specific factors, such as facility integrity issues and maintenance requirements that impact the throughput rates of our assets;
- seasonal factors that affect the demand for products transported by and/or stored in our assets and the demand for products we sell;
- industry factors, such as changes in the prices of petroleum products that affect demand and operations of our competitors;
- economic factors, such as commodity price volatility that impact our fuels marketing segment; and
- factors that impact the operations served by our pipeline and storage assets, such as utilization rates and maintenance turnaround schedules of our refining company customers and drilling activity by our crude oil production customers.

Current Market Conditions

While the price of crude oil has recovered modestly since its sharp initial decline in 2015 and subsequent historic lows during 2016, energy industry experts predict continued price volatility and do not expect significant sustained price recovery in 2017.

Increases or decreases in the price of crude oil affect various sectors of the energy industry, including our customers in crude oil production, refining and trading, in different ways. For example, the sustained period of low prices has forced some crude oil producers to reduce their capital spending and drilling activity and narrow their focus to assets in the most cost-advantaged regions. However, while some refiners have benefitted from lower crude oil prices, particularly to the extent the lower feedstock price has been coupled with higher demand for certain refined products in some regional markets, recent increases in refined product inventory may cause some refiners to reduce their production levels.

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RESULTS OF OPERATIONS
Year Ended December 31, 2016 Compared to Year Ended December 31, 2015
Financial Highlights
(Thousands of Dollars, Except Unit and Per Unit Data)

	Year Ended December 31,		
	2016	2015	Change
Statement of Income Data:			
Revenues:			
Service revenues	$ 1,083,165	$ 1,114,153	$ (30,988)
Product sales	673,517	969,887	(296,370)
Total revenues	1,756,682	2,084,040	(327,358)
Costs and expenses:			
Cost of product sales	633,653	907,574	(273,921)
Operating expenses	448,367	473,031	(24,664)
General and administrative expenses	98,817	102,521	(3,704)
Depreciation and amortization expense	216,736	210,210	6,526
Total costs and expenses	1,397,573	1,693,336	(295,763)
Operating income	359,109	390,704	(31,595)
Interest expense, net	(138,350)	(131,868)	(6,482)
Other (expense) income, net	(58,783)	61,822	(120,605)
Income from continuing operations before income tax expense	161,976	320,658	(158,682)
Income tax expense	11,973	14,712	(2,739)
Income from continuing operations	150,003	305,946	(155,943)
Income from discontinued operations, net of tax	—	774	(774)
Net income	$ 150,003	$ 306,720	$ (156,717)
Basic and diluted net income per common unit:			
Continuing operations	$ 1.27	$ 3.29	$ (2.02)
Discontinued operations	—	0.01	(0.01)
Total	$ 1.27	$ 3.30	$ (2.03)
Basic weighted-average common units outstanding	78,080,484	77,886,078	194,406

Annual Overview

Net income decreased $156.7 million for the year ended December 31, 2016, compared to the year ended December 31, 2015, primarily due to a $58.7 million impairment charge on the Axeon Term Loan in 2016 and a $56.3 million gain associated with the Linden Acquisition in 2015. In addition, segment operating income decreased $35.3 million, resulting mainly from reductions in operating income for the pipeline and fuels marketing segments.

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Segment Operating Highlights
(Thousands of Dollars, Except Barrel/Day Information)

	Year Ended December 31,		
	2016	2015	Change
Pipeline:			
Refined products pipelines throughput (barrels/day)	535,946	522,146	13,800
Crude oil pipelines throughput (barrels/day)	392,181	471,632	(79,451)
Total throughput (barrels/day)	928,127	993,778	(65,651)
Throughput revenues	$485,650	$508,522	$(22,872)
Operating expenses	147,858	153,222	(5,364)
Depreciation and amortization expense	89,554	84,951	4,603
Segment operating income	$248,238	$270,349	$(22,111)
Storage:			
Throughput (barrels/day)	789,065	899,606	(110,541)
Throughput terminal revenues	$117,586	$130,127	$(12,541)
Storage terminal revenues	492,456	494,781	(2,325)
Total revenues	610,042	624,908	(14,866)
Operating expenses	276,578	290,322	(13,744)
Depreciation and amortization expense	118,663	116,768	1,895
Segment operating income	$214,801	$217,818	$(3,017)
Fuels Marketing:			
Product sales and other revenue	$681,934	$976,216	$(294,282)
Cost of product sales	645,355	922,906	(277,551)
Gross margin	36,579	53,310	(16,731)
Operating expenses	33,173	39,803	(6,630)
Segment operating income	$3,406	$13,507	$(10,101)
Consolidation and Intersegment Eliminations:			
Revenues	$(20,944)	$(25,606)	$4,662
Cost of product sales	(11,702)	(15,332)	3,630
Operating expenses	(9,242)	(10,316)	1,074
Total	$—	$42	$(42)
Consolidated Information:			
Revenues	$1,756,682	$2,084,040	$(327,358)
Cost of product sales	633,653	907,574	(273,921)
Operating expenses	448,367	473,031	(24,664)
Depreciation and amortization expense	208,217	201,719	6,498
Segment operating income	466,445	501,716	(35,271)
General and administrative expenses	98,817	102,521	(3,704)
Other depreciation and amortization expense	8,519	8,491	28
Consolidated operating income	$359,109	$390,704	$(31,595)

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Pipeline

Total revenues decreased $22.9 million and total throughputs decreased 65,651 barrels per day for the year ended December 31, 2016, compared to the year ended December 31, 2015, primarily due to:

- a decrease in revenues of $36.3 million and a decrease in throughputs of 81,779 barrels per day on our Eagle Ford System due to reduced production resulting from a sustained low crude oil price environment;
- a decrease in revenues of $7.1 million and a decrease in throughputs of 6,586 barrels per day on our Ammonia Pipeline partly due to a shipper's facility reconfiguration, resulting in fewer barrels available for transportation, and maintenance downtime on a portion of the pipeline; and
- a decrease in revenues of $3.9 million and a decrease in throughputs of 1,551 barrels per day on our Ardmore System due to operational issues and a turnaround at the Ardmore refinery in 2016, as well as increased short-haul deliveries resulting in lower average tariffs.

Those decreases in pipeline revenues and throughputs were partially offset by:

- an increase in revenues of $12.1 million and an increase in throughputs of 14,803 barrels per day on our McKee and Three Rivers System pipelines due to higher demand in those markets, increased production at the McKee refinery and increased volumes on pipelines with higher average tariffs;
- an increase in revenues of $9.6 million and an increase in throughputs of 11,441 barrels per day on our East Pipeline mainly due to the completion of various expansion projects beginning in the fourth quarter of 2015, unfavorable pricing differentials in 2015 in markets served by the East Pipeline and lower throughput in 2015 due to maintenance downtime on a portion of the pipeline; and
- an increase in revenues of $3.4 million and an increase in throughputs of 1,392 barrels per day on our North Pipeline due to increased refinery production shipped via pipeline and increased long-haul deliveries resulting in higher average tariffs.

Operating expenses decreased $5.4 million for the year ended December 31, 2016, compared to the year ended December 31, 2015, primarily due to lower operating expenses of $8.7 million on our Eagle Ford System, consistent with the decrease in throughputs. The decrease in pipeline operating expenses was partially offset by higher maintenance and regulatory expenses of $3.2 million, mainly on our Central West Refined Products Pipelines.

Depreciation and amortization expense increased $4.6 million for the year ended December 31, 2016, compared to the year ended December 31, 2015, mainly due to the completion of pipeline projects.

Storage

Throughput terminal revenues decreased $12.5 million and throughputs decreased 110,541 barrels per day for the year ended December 31, 2016, compared to the year ended December 31, 2015, primarily due to:

- a decrease in revenues of $10.9 million and a decrease in throughputs of 82,177 barrels per day at our Corpus Christi North Beach terminal due to (i) a decrease in Eagle Ford Shale crude oil being shipped to Corpus Christi, consistent with the decrease in pipeline throughputs and (ii) the completion of a pipeline expansion project in the first quarter of 2016, in which we transport volumes from North Beach to our customer's refineries, thus reducing volumes moved over our docks; and
- a decrease in revenues of $3.3 million and a decrease in throughputs of 35,497 barrels per day due to turnarounds at the refineries served by our Benicia and Corpus Christi crude oil storage tank facilities, as well as operational issues at a customer's Corpus Christi refinery in 2016.

The decreases were partially offset by an increase in revenue of $3.0 million and an increase in throughputs of 9,044 barrels per day at our McKee and Three Rivers System terminals due to higher demand in those markets, as well as increased production at the McKee refinery.

Storage terminal revenues decreased $2.3 million for the year ended December 31, 2016, compared to the year ended December 31, 2015. Revenues from our international terminals decreased $17.7 million primarily due to a decrease in revenues at our St. Eustatius terminal of $8.3 million, resulting mainly from lower throughput and related handling fees, as well as a decrease in revenues of $5.9 million at our UK terminal facilities, mainly due to fluctuations in foreign exchange rates. These decreases were partially offset by an increase of $15.3 million in domestic revenues. Domestic revenues increased $10.1 million from rate escalations and new customer contracts mainly at our Selby, CA, Linden, NJ, Blue Island, IL and Piney Point, MD terminals. In addition, revenues at our St. James, LA terminal increased $3.1 million due to completed terminal expansion projects.

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Operating expenses decreased $13.7 million for the year ended December 31, 2016, compared to the year ended December 31, 2015, primarily due to:

- a decrease of $11.8 million in operating expenses at our international terminals, mainly at our St. Eustatius terminal facility due to higher property taxes in 2015, and lower employee related costs and reimbursable expenses in 2016;
- a decrease of $3.1 million resulting from an insurance settlement for environmental remediation expenses incurred on a previously sold terminal; and
- a decrease of $2.0 million resulting from lower wharfage and dockage costs at our Corpus Christi North Beach terminal.

The decreases in storage operating expenses were partially offset by a $3.9 million increase in regulatory and maintenance expenses mainly at our Central West terminal facilities and $1.6 million in cancelled capital project costs.

Fuels Marketing

Segment operating income decreased $10.1 million for the year ended December 31, 2016, compared to the year ended December 31, 2015, primarily due to a decrease in gross margin of $7.9 million and $6.6 million from our fuel oil trading and bunker fuel operations, respectively. The lower gross margins were partially offset by a reduction in operating expenses of $6.6 million mainly from our bunker fuel operations due to lower bad debt expense and decreased product inspection and marine vessel costs.

Consolidation and Intersegment Eliminations

Revenue and operating expense eliminations primarily relate to storage fees charged to the fuels marketing segment by the storage segment. Cost of product sales eliminations represent expenses charged to the fuels marketing segment for costs associated with inventory that are expensed once the inventory is sold.

General

General and administrative expenses decreased $3.7 million for the year ended December 31, 2016, compared to the year ended December 31, 2015, primarily due to a decrease in employee benefit costs which was partially offset by increased compensation expense associated with our long-term incentive plan.

Interest expense, net increased $6.5 million for the year ended December 31, 2016, compared to the year ended December 31, 2015, primarily due to increased interest costs associated with higher borrowings under our revolving credit agreement, as well as lower capitalized interest resulting from fewer capital projects.

For the year ended December 31, 2016, we recorded other expense, net of $58.8 million mainly due to an impairment charge of $58.7 million recognized on the Axeon Term Loan. For the year ended December 31, 2015, we recorded other income, net of $61.8 million mainly due to the $56.3 million gain associated with the Linden Acquisition.

Income tax expense decreased $2.7 million for the year ended December 31, 2016, compared to the year ended December 31, 2015, primarily due to lower margin tax in Texas, a decrease in the UK tax rate and a reduction in our St. Eustatius and Canada withholding tax. Please refer to Note 25 of the Notes to Consolidated Financial Statements in Item 8. “Financial Statements and Supplementary Data” for a discussion on income taxes.

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Year Ended December 31, 2015 Compared to Year Ended December 31, 2014
Financial Highlights
(Thousands of Dollars, Except Unit and Per Unit Data)

	Year Ended December 31,		
	2015	2014	Change
Statement of Income Data:			
Revenues:			
Service revenues	$1,114,153	$1,026,446	$87,707
Product sales	969,887	2,048,672	(1,078,785)
Total revenues	2,084,040	3,075,118	(991,078)
Costs and expenses:			
Cost of product sales	907,574	1,967,528	(1,059,954)
Operating expenses	473,031	472,925	106
General and administrative expenses	102,521	96,056	6,465
Depreciation and amortization expense	210,210	191,708	18,502
Total costs and expenses	1,693,336	2,728,217	(1,034,881)
Operating income	390,704	346,901	43,803
Equity in earnings of joint ventures	—	4,796	(4,796)
Interest expense, net	(131,868)	(132,281)	413
Interest income from related party	—	1,055	(1,055)
Other income, net	61,822	4,499	57,323
Income from continuing operations before income tax expense	320,658	224,970	95,688
Income tax expense	14,712	10,801	3,911
Income from continuing operations	305,946	214,169	91,777
Income (loss) from discontinued operations, net of tax	774	(3,791)	4,565
Net income	$306,720	$210,378	$96,342
Basic and diluted net income (loss) per common unit:			
Continuing operations	$3.29	$2.14	$1.15
Discontinued operations	0.01	(0.04)	0.05
Total	$3.30	$2.10	$1.20
Basic weighted-average common units outstanding	77,886,078	77,886,078	—

Annual Overview

Net income increased $96.3 million for the year ended December 31, 2015, compared to the year ended December 31, 2014, primarily due to an increase of $48.6 million in segment operating income, resulting mainly from improvements in the pipeline and storage segments, and a $56.3 million gain associated with the Linden Acquisition.

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Segment Operating Highlights
(Thousands of Dollars, Except Barrel/Day Information)

	Year Ended December 31,		
	2015	2014	Change
Pipeline:			
Refined products pipelines throughput (barrels/day)	522,146	510,737	11,409
Crude oil pipelines throughput (barrels/day)	471,632	437,757	33,875
Total throughput (barrels/day)	993,778	948,494	45,284
Throughput revenues	$508,522	$477,030	$31,492
Operating expenses	153,222	154,106	(884)
Depreciation and amortization expense	84,951	77,691	7,260
Segment operating income	$270,349	$245,233	$25,116
Storage:			
Throughput (barrels/day)	899,606	887,607	11,999
Throughput terminal revenues	$130,127	$123,051	$7,076
Storage terminal revenues	494,781	441,455	53,326
Total revenues	624,908	564,506	60,402
Operating expenses	290,322	277,554	12,768
Depreciation and amortization expense	116,768	103,848	12,920
Segment operating income	$217,818	$183,104	$34,714
Fuels Marketing:			
Product sales and other revenue	$976,216	$2,060,017	$(1,083,801)
Cost of product sales	922,906	1,983,339	(1,060,433)
Gross margin	53,310	76,678	(23,368)
Operating expenses	39,803	51,857	(12,054)
Depreciation and amortization expense	—	16	(16)
Segment operating income	$13,507	$24,805	$(11,298)
Consolidation and Intersegment Eliminations:			
Revenues	$(25,606)	$(26,435)	$829
Cost of product sales	(15,332)	(15,811)	479
Operating expenses	(10,316)	(10,592)	276
Total	$42	$(32)	$74
Consolidated Information:			
Revenues	$2,084,040	$3,075,118	$(991,078)
Cost of product sales	907,574	1,967,528	(1,059,954)
Operating expenses	473,031	472,925	106
Depreciation and amortization expense	201,719	181,555	20,164
Segment operating income	501,716	453,110	48,606
General and administrative expenses	102,521	96,056	6,465
Other depreciation and amortization expense	8,491	10,153	(1,662)
Consolidated operating income	$390,704	$346,901	$43,803

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Pipeline

Revenues increased $31.5 million and throughputs increased 45,284 barrels per day for the year ended December 31, 2015, compared to the year ended December 31, 2014, primarily due to:

- an increase in revenues of $17.0 million and an increase in throughputs of 34,564 barrels per day on our Eagle Ford System, primarily resulting from completion of expansion projects that increased our overall capacity;
- an increase in revenues of $11.9 million and an increase in throughputs of 11,676 barrels per day as a result of increased production in 2015 and a turnaround during the first quarter of 2014 at the refinery served by our McKee System; and
- an increase in revenues of $3.6 million, despite throughputs that remained flat, on our Ammonia Pipeline as a result of increased long-haul deliveries and the annual index adjustment in July 2015.

The increases in pipeline revenues and throughputs were partially offset by a decrease in revenues of $4.4 million and a decrease in throughputs of 2,811 barrels per day due to turnarounds at refineries served by the East Pipeline and unfavorable pricing differentials in markets served by the East Pipeline.

Operating expenses decreased $0.9 million, despite an increase in throughputs, for the year ended December 31, 2015, compared to the year ended December 31, 2014, primarily due to the completion of a capital project to install permanent power along our South Texas Crude System, reducing power and rental costs.

Depreciation and amortization expense increased $7.3 million for the year ended December 31, 2015, compared to the year ended December 31, 2014, mainly due to the completion of expansion projects.

Storage

Throughput terminal revenues increased $7.1 million and throughputs increased 11,999 barrels per day for the year ended December 31, 2015, compared to the year ended December 31, 2014, primarily due to:

- an increase in revenues of $2.5 million and an increase in throughputs of 19,853 barrels per day at our Corpus Christi North Beach terminal due to an increase in Eagle Ford Shale crude oil being shipped to Corpus Christi and the completion of related expansion projects;
- an increase in revenues of $2.3 million and an increase in throughputs of 6,263 barrels per day at our terminals in Edinburg, Harlingen and Paulsboro, mainly due to increased demand; and
- an increase in revenues of $2.0 million and an increase in throughputs of 12,558 barrels per day as a result of a turnaround during the first quarter of 2014 at the refinery served by our Benicia crude oil refinery tanks.

The increases in storage throughput terminal revenues and throughputs were partially offset by a decrease in revenues of $0.9 million and a decrease in throughputs of 21,107 barrels per day as a result of a turnaround during the first quarter of 2015 at the refinery served by our Texas City crude oil refinery tanks.

Storage terminal revenues increased $53.3 million for the year ended December 31, 2015, compared to the year ended December 31, 2014, primarily due to:

- an increase of $41.5 million as a result of the Linden Acquisition;
- an increase of $11.8 million at our domestic terminal facilities, mainly due to storage rate escalations and new customers at our Texas City, West Coast and Asphalt Terminals;
- an increase of $9.9 million at our St. Eustatius terminal facility, mainly due to higher demand for storage and increased throughput and related handling fees; and
- an increase of $5.0 million at our Point Tupper terminal facility, due to new customers and rate escalations, as well as increased throughput and related handling fees.

The increases in storage terminal revenues were partially offset by:

- a decrease of $8.4 million at our Amsterdam terminal facility, primarily due to the effect of foreign exchange rates; and
- a decrease of $3.5 million at our St. James terminal facility, mainly due to reduced volumes delivered to one of our unit train offloading facilities, partially offset by increased revenues from storage rate escalations.

Operating expenses increased $12.8 million for the year ended December 31, 2015, compared to the year ended December 31, 2014, primarily due to:

- an increase of $12.6 million as a result of the Linden Acquisition; and
- an increase of $4.6 million in regulatory and maintenance expenses, mainly at our St. James and St. Eustatius terminal facilities.

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The increases in storage operating expenses were partially offset by a decrease of $3.4 million in contract services costs, mainly at our St. James terminal facility due to a reduction in dock and rail labor costs.
Depreciation and amortization expense increased $12.9 million for the year ended December 31, 2015, compared to the year ended December 31, 2014, mainly due to the assets associated with the Linden Acquisition.

Fuels Marketing
Segment operating income decreased $11.3 million for the year ended December 31, 2015, compared to the year ended December 31, 2014, primarily due to lower gross margins from our bunker fuel operations and refined product sales. The lower gross margins were partially offset by a reduction in operating expenses due to decreased marine vessel costs and lower bad debt expense in 2015.

Consolidation and Intersegment Eliminations
Revenue and operating expense eliminations primarily relate to storage fees charged to the fuels marketing segment by the storage segment. Cost of product sales eliminations represent expenses charged to the fuels marketing segment for costs associated with inventory that are expensed once the inventory is sold.

General
General and administrative expenses increased $6.5 million for the year ended December 31, 2015, compared to the year ended December 31, 2014, primarily due to:

- a $3.6 million increase in outside legal and other professional fees;
- a $3.5 million increase in salaries and wages mainly due to increased headcount and higher employee benefit costs; and
- a $3.1 million increase as a result of the termination of a services agreement between Axeon and NuStar GP, LLC in June 2014, under which Axeon reimbursed us for certain corporate support services.

The increases in general and administrative expenses were partially offset by a decrease of $4.5 million in compensation expense associated with our long-term incentive plans, which fluctuated with our common unit price.
Equity in earnings of joint ventures for the year ended December 31, 2014 primarily related to our equity investment in Linden prior to the Linden Acquisition.
Interest expense, net decreased $0.4 million for the year ended December 31, 2015, compared to the year ended December 31, 2014, mainly due to increased interest income from the Axeon Term Loan. The decrease in interest expense, net was partially offset by increased interest costs associated with higher borrowings under our revolving credit agreement.
Other income, net increased by $57.3 million for the year ended December 31, 2015, compared to the year ended December 31, 2014, mainly due to the $56.3 million gain associated with the Linden Acquisition.
Income tax expense increased $3.9 million for the year ended December 31, 2015, compared to the year ended December 31, 2014, mainly due to estimated withholding taxes on our planned repatriation of cash held by foreign subsidiaries in 2016. Please refer to Note 25 of the Notes to Consolidated Financial Statements in Item 8. “Financial Statements and Supplementary Data” for a discussion on income taxes.
For the year ended December 31, 2015, we recorded income from discontinued operations of $0.8 million, compared to a loss from discontinued operations of $3.8 million for the year ended December 31, 2014. Discontinued operations include the results of operations of certain storage assets that were divested in 2014 and the first quarter of 2015.

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TRENDS AND OUTLOOK

We believe that the fact that we provide both storage and pipeline services, for crude and refined products, to customers in sectors across the energy industry, throughout the country and around the world, offers some insulation from the impact of market fluctuations on our results of operations. Since high crude oil prices have tended to benefit our producer customers, high prices have also correlated with increased demand for our crude oil pipeline services. On the other hand, depressed crude oil prices, when coupled with an industry expectation of higher prices in the future, or a contango market, has historically correlated with increased demand from trading companies for our storage services.

Because of the geographic diversity of our assets, our results of operations are not dependent on the regions or markets that have been hardest hit by depressed crude oil prices, the domestic shale play regions, which was demonstrated by the fact that, in 2016, revenue from our Eagle Ford pipeline and storage assets constituted only 12% of our total pipeline and storage segment revenue. Although our assets in the Eagle Ford region have experienced lower throughputs as production has slowed, the fact that we have minimum volume throughput contracts with large, creditworthy customers has minimized the negative impact of that slowdown on our results of operations.

In addition to the diversity of our customers, our assets, the services we offer and the markets we serve, we believe our contracts, many of which are long-term, take-or-pay arrangements for committed storage or throughput capacity, also help to blunt the impact of volatility of crude oil prices on our results of operations. In the locations at which our assets are integrated physically with the refineries the assets serve, we believe the results generated by those assets depend to a greater degree on the refinery’s continuing need to receive, store and transport the crude and refined products than on crude or refined product prices.

For 2017, we expect consistent volumes in our pipeline segment as any declines in crude oil pipelines are expected to be offset by higher volumes on our refined product pipelines. We are forecasting near minimum take-or-pay volumes on our South Texas Crude System, allowing for possible upside if production in the Eagle Ford region ramps up. We expect our storage segment to benefit in 2017 from favorable storage contract renewals and the Martin Terminal Acquisition. Earnings in our fuels marketing segment, as in any margin-based business, are subject to many factors that can increase or reduce margins, which may cause the segment’s actual results to vary significantly from our forecast.

Our outlook for the partnership, both overall and for any of our segments, may change, as we base our expectations on our continuing evaluation of a number of factors, many of which are outside our control. These factors include, but are not limited to, the state of the economy and the capital markets, changes to our customers’ refinery maintenance schedules and unplanned refinery downtime, supply of and demand for crude oil, refined products and anhydrous ammonia, demand for our transportation and storage services and changes in laws or regulations affecting our assets.

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LIQUIDITY AND CAPITAL RESOURCES

Overview

Primary Cash Requirements. Our primary cash requirements are for distributions to our partners, capital expenditures, debt service and operating expenses.

Our partnership agreement requires that we distribute all "Available Cash" to our common limited partners and general partner each quarter, and this term is defined in the partnership agreement generally as cash on hand at the end of the quarter, plus certain permitted borrowings made subsequent to the end of the quarter, less cash reserves determined by our board of directors.

Sources of Funds. Each year, our objective is to fund our total annual reliability capital expenditures and distribution requirements with our net cash provided by operating activities during that year. If we do not generate sufficient cash from operations to meet that objective, we utilize cash on hand or other sources of cash flow, which in the past have primarily included borrowings under our revolving credit agreement, sales of non-strategic assets and, to the extent necessary, funds raised through equity or debt offerings under our shelf registration statements. We have typically funded our strategic capital expenditures and acquisitions from external sources, primarily borrowings under our revolving credit agreement or funds raised through equity or debt offerings. However, our ability to raise funds by issuing debt or equity depends on many factors beyond our control. Our risk factors in Item 1A. "Risk Factors" describe the risks inherent to these sources of funding and the availability thereof.

During periods when our cash flow from operations is less than our distribution and reliability capital requirements, we may maintain our distribution level because we can use other sources of Available Cash, as provided in our partnership agreement, including borrowings under our revolving credit agreement and proceeds from the sales of assets. Our risk factors in Item 1A. "Risk Factors" describe the risks inherent in our ability to maintain or grow our distribution.

For the years ended December 31, 2016, 2015 and 2014, our cash flow from operations exceeded our distributions to our partners and our reliability capital expenditures. For 2017, we currently expect to generate cash from operations in excess of our distribution and reliability capital requirements.

Cash Flows for the Years Ended December 31, 2016, 2015 and 2014

The following table summarizes our cash flows from operating, investing and financing activities:

	Year Ended December 31,		
	2016	2015	2014
	(Thousands of Dollars)		
Net cash provided by (used in):			
Operating activities	$436,761	$524,937	$518,523
Investing activities	(311,078)	(452,029)	(340,231)
Financing activities	(211,324)	(29,229)	(188,185)
Effect of foreign exchange rate changes on cash	2,721	(12,729)	(2,938)
Net (decrease) increase in cash and cash equivalents	$(82,920)	$30,950	$(12,831)

Net cash provided by operating activities the year ended December 31, 2016 was $436.8 million, compared to $524.9 million the year ended December 31, 2015, primarily due to lower net income in 2016. In addition, our working capital decreased by $3.7 million for the year ended December 31, 2016, compared to a decrease of $50.6 million for the year ended December 31, 2015. Please refer to the Working Capital Requirements section below for a discussion of the changes in working capital.

For the year ended December 31, 2016, net cash provided by operating activities primarily was used to fund our distributions to unitholders and our general partner in the aggregate amount of $393.0 million and reliability capital expenditures of $38.2 million. The proceeds from debt borrowings, net of repayments, proceeds from the issuance of common and preferred units and cash on hand were used to fund our strategic capital expenditures, including the Martin Terminal Acquisition.

For the year ended December 31, 2015, the majority of net cash provided by operating activities was used to fund our distributions to unitholders and our general partner in the aggregate amount of $392.2 million and to fund $40.0 million of reliability capital expenditures. The proceeds from debt borrowings, net of repayments, combined with a portion of net cash provided by operating activities, were used to fund our strategic capital expenditures, including the Linden Acquisition.

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For the year ended December 31, 2014, the majority of net cash provided by operating activities was used to fund our distributions to unitholders and our general partner in the aggregate amount of $392.2 million and to fund $28.6 million of reliability capital expenditures. The proceeds from debt borrowings, net of repayments, combined with net cash provided by operating activities and proceeds from the sales of assets, were used to fund our strategic capital expenditures primarily related to our pipeline and storage segments and advances to Axeon under the NuStar JV Facility.

Revolving Credit Agreement

NuStar Logistics is a party to a $1.5 billion five-year revolving credit agreement (the Revolving Credit Agreement), which matures on October 29, 2019. The Revolving Credit Agreement includes an option allowing NuStar Logistics to request an aggregate increase in the commitments from the lenders of up to $250.0 million (after which increase the aggregate commitment from all lenders shall not exceed $1.75 billion). The Revolving Credit Agreement also includes the ability to borrow up to the equivalent of $250.0 million in Euros and up to the equivalent of $250.0 million in British Pounds Sterling. Obligations under the Revolving Credit Agreement are guaranteed by NuStar Energy and NuPOP.

The Revolving Credit Agreement contains customary restrictive covenants, such as limitations on indebtedness, liens, mergers, asset transfers and certain investing activities. In addition, the Revolving Credit Agreement requires us to maintain, as of the end of each rolling period of four consecutive fiscal quarters, a consolidated debt coverage ratio (consolidated debt to consolidated EBITDA, each as defined in the Revolving Credit Agreement) not to exceed 5.00-to-1.00. If we consummate an acquisition for an aggregate net consideration of at least $50.0 million, the maximum consolidated debt coverage ratio will increase to 5.50-to-1.00 for two rolling periods. As of December 31, 2016, our consolidated debt coverage ratio could not exceed 5.50-to-1.00, as a result of the Martin Terminal Acquisition in December 2016. The requirement not to exceed a maximum consolidated debt coverage ratio may limit the amount we can borrow under the Revolving Credit Agreement to an amount less than the total amount available for borrowing. As of December 31, 2016, our consolidated debt coverage ratio was 4.3x, and we had $645.2 million available for borrowing.

Letters of credit issued under our Revolving Credit Agreement totaled $15.8 million as of December 31, 2016. Letters of credit are limited to $750.0 million (including up to the equivalent of $25.0 million in Euros and up to the equivalent of $25.0 million in British Pounds Sterling) and also restrict the amount we can borrow under the Revolving Credit Agreement.

Please refer to Note 13 of the Notes to Consolidated Financial Statements in Item 8. “Financial Statements and Supplementary Data” for a discussion of our debt agreements.

Other Sources of Liquidity

Other sources of liquidity consist of the following:

- $365.4 million in revenue bonds pursuant to the Gulf Opportunity Zone Act of 2005 (the GoZone Bonds), with $42.4 million remaining in the trust as of December 31, 2016, supported by $370.2 million in letters of credit;
- a $125.0 million receivables financing agreement between NuStar Energy, NuStar Finance LLC and third-party lenders (the Receivables Financing Agreement), with the amount available for borrowing based on the availability of eligible receivables and other customary factors and conditions; and
- two short-term line of credit agreements with an aggregate uncommitted borrowing capacity of up to $75.0 million, with $54.0 million of borrowings outstanding as of December 31, 2016.

Please refer to Note 13 of the Notes to Consolidated Financial Statements in Item 8. “Financial Statements and Supplementary Data” for a more detailed discussion of these debt agreements.

LOC Agreement

NuStar Logistics is a party to a $100.0 million uncommitted letter of credit agreement, which provides for standby letters of credit or guarantees with a term of up to one year (LOC Agreement). Any letters of credit issued under the LOC Agreement do not reduce availability under the Revolving Credit Agreement. As of December 31, 2016, letters of credit issued under the LOC Agreement totaled $9.0 million.

Issuance of Units

In the fourth quarter of 2016, we issued 9,060,000 of our 8.50% Series A Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units (the Preferred Units) representing limited partner interests at a price of $25.00 per unit. We used the net proceeds of $218.4 million from this issuance for general partnership purposes, including the funding of capital expenditures and repayments of outstanding borrowings under the Revolving Credit Agreement.

During the year ended December 31, 2016, we issued 595,050 common units representing limited partner interests at an average price of $47.39 per unit for proceeds of $28.3 million, net of $0.5 million of issuance costs. We used these proceeds,

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which includes a contribution of $0.6 million from our general partner to maintain its 2% general partner interest, for general partnership purposes, including repayments of outstanding borrowings under the Revolving Credit Agreement.

Please refer to Note 20 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for additional information on these issuances.

Repatriation

Previously, all undistributed earnings of our foreign subsidiaries were indefinitely reinvested. In 2016, we began to repatriate a portion of undistributed foreign earnings in order to provide greater flexibility to meet cash flow needs. During the year ended December 31, 2016, we repatriated $110.8 million of cash from our foreign subsidiaries. For 2017, we will continue to evaluate our cash flow needs and may repatriate funds from our foreign subsidiaries as a source of liquidity.

Capital Requirements

Our operations require significant investments to maintain, upgrade or enhance the operating capacity of our existing assets. Our capital expenditures consist of:

- strategic capital expenditures, such as those to expand or upgrade the operating capacity, increase efficiency or increase the earnings potential of existing assets, whether through construction or acquisition, as well as certain capital expenditures related to support functions; and
- reliability capital expenditures, such as those required to maintain the existing operating capacity of existing assets or extend their useful lives, as well as those required to maintain equipment reliability and safety.

The following table summarizes our capital expenditures, and the amount we expect to spend for 2017:

	Strategic Capital Expenditures (a)	Reliability Capital Expenditures (b)	Total
For the year ended December 31:			
2016	$ 261,860	$ 38,155	$300,015
2015	$ 430,870	$ 40,002	$470,872
2014	$ 328,330	$ 28,635	$356,965
Expected for the year ended December 31, 2017	$ 440,000 - 460,000	$ 35,000 - 55,000	$ 475,000 - 515,000

(a) Strategic capital expenditures mainly include projects associated with the conversion and expansion of existing assets. Strategic capital also includes $95.7 million for the Martin Terminal Acquisition in 2016 and $142.5 million for the Linden Acquisition in 2015. In 2015 and 2014, strategic capital also includes the reactivation and conversion of our 200-mile pipeline between Mont Belvieu and Corpus Christi, Texas.

(b) Reliability capital expenditures primarily relate to maintenance upgrade projects at our terminals.

We continue to evaluate our capital budget and make changes as economic conditions warrant, and our actual capital expenditures for 2017 may increase or decrease from the budgeted amounts. We believe cash on hand, combined with the sources of liquidity previously described, will be sufficient to fund our capital expenditures in 2017, and our internal growth projects can be accelerated or scaled back depending on market conditions or customer demand.

Working Capital Requirements

Working capital requirements, particularly in our fuels marketing segment, may vary with the seasonality of demand and the volatility of commodity prices for the products we market. This seasonality in demand and the volatility of commodity prices affect our accounts receivable and accounts payable balances, which vary depending on timing of payments.

During the year ended December 31, 2016, accounts receivable increased $23.2 million and accounts payable increased $14.1 million primarily due to the timing of payments related to our bunker fuel operations and crude oil trading activity.

During the year ended December 31, 2015, inventories decreased $16.8 million mainly due to the continued decline in crude oil prices. In addition, inventory volumes decreased in 2015 primarily due to decreased bunker fuel operations activity. During the year ended December 31, 2015, accounts receivable decreased $67.3 million and accounts payable decreased $32.2 million primarily due to decreased bunker fuel operations and crude oil trading activity.

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During the year ended December 31, 2014, inventories decreased $82.1 million primarily due to a steep decline in crude oil market price during the fourth quarter of 2014. We also reduced the volume of our inventory carried in our bunker fuel operations and our heavy fuel oil trading operations. During the year ended December 31, 2014, accounts receivable decreased $72.3 million and accounts payable decreased $153.7 million mainly due to the bunker fuel supply strategy and less crude oil trading activity. In addition, the termination of the crude oil supply agreement with Axeon on January 1, 2014 caused a decrease in both accounts payable and the receivable from related parties.

Axeon Term Loan and Credit Support

In December 2016, Lindsay Goldberg LLC informed us that they entered into an agreement to sell Axeon's retail asphalt sales and distribution business (the Axeon Sale), and we entered into an agreement with Axeon (the Axeon Letter Agreement) to settle and terminate the Axeon Term Loan with a $110.0 million payment to us upon closing of the Axeon Sale. As a result of the Axeon Letter Agreement and our review of Axeon's financial statements, we determined it was probable that we would not receive all contractual amounts due under the Axeon Term Loan. Therefore, we recorded a charge of $58.7 million, included in "Other (expense) income, net" in the consolidated statements of income, to reduce the carrying amount of the Axeon Term Loan to $110.0 million and reclassified the Axeon Term Loan from "Other long-term assets, net" to "Other current assets" on the consolidated balance sheet as of December 31, 2016. The Axeon Sale closed on February 22, 2017. In conjunction with the closing, we received the $110.0 million payment in accordance with the Axeon Letter Agreement, the Axeon Term Loan terminated and we are no longer required to provide ongoing credit support to Axeon. We were not obligated to perform under any of the guarantees or letters of credit provided prior to the closing of the Axeon Sale. We are in the process of terminating certain guarantees that we previously issued on Axeon's behalf that remain outstanding after the Axeon Sale, but these guarantees are supported by a letter of credit provided to us in an amount equal to those remaining guarantees, thereby reducing our exposure to zero. In addition, in connection with the closing of the Axeon Sale, the terminal storage agreements that Axeon has with our Jacksonville, Florida and Baltimore, Maryland terminal facilities were amended to increase the storage fees.

The recently terminated Axeon Term Loan included scheduled repayments to reduce the outstanding amount from $190.0 million to $175.0 million as of December 31, 2014 and then to $150.0 million on September 30, 2015. Any repayments of the Axeon Term Loan were subject to Axeon meeting certain restrictive requirements contained in its third-party asset-based revolving credit facility. In 2015 and 2014, those requirements prohibited Axeon from making the two scheduled principal payments, which, under the provisions of the Axeon Term Loan, increased the interest rate payable by Axeon. The Axeon Term Loan bore interest based on either an alternative base rate or a LIBOR-based rate and was scheduled to be repaid no later than September 28, 2019. We recognized interest income over the term of the loan in "Interest expense, net" on the consolidated statements of income. During the year ended December 31, 2016, the weighted average interest rate was 5.7%.

We also were obligated to provide credit support, such as guarantees, letters of credit and cash collateral, as applicable, of up to $125.0 million to Axeon. As of December 31, 2016, we had provided guarantees for Axeon with an aggregate maximum potential exposure of $54.1 million, plus one guarantee to suppliers that did not specify a maximum amount. As of December 31, 2016, we had also provided $16.7 million in letters of credit on behalf of Axeon.

Defined Benefit Plans Funding

During 2016, we contributed $15.8 million to our pension and postretirement benefit plans. We expect to contribute approximately $11.5 million to our pension and postretirement benefit plans in 2017, which principally represents contributions either required by regulations or laws or, with respect to unfunded plans, necessary to fund current benefits. Pension and postretirement benefit plans funding beyond 2017 is uncertain as the funding varies from year to year based upon changes in the fair value of the plan assets and actuarial assumptions.

Distributions

NuStar Energy's partnership agreement, as amended, determines the amount and priority of cash distributions that our unitholders and general partner may receive. The general partner receives a 2% distribution with respect to its general partner interest. The general partner is also entitled to incentive distributions if the amount we distribute with respect to any quarter exceeds $0.60 per unit. For a detailed discussion of the incentive distribution targets, please read Item 5. "Market for Registrant's Common Units, Related Unitholder Matters and Issuer Purchases of Equity Securities."

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The following table reflects the allocation of total cash distributions to the general and common limited partners applicable to the period in which the distributions were earned:

	Year Ended December 31,		
	2016	2015	2014
	(Thousands of Dollars, Except Per Unit Data)		
General partner interest	$ 7,877	$ 7,844	$ 7,844
General partner incentive distribution	43,407	43,220	43,220
Total general partner distribution	51,284	51,064	51,064
Common limited partners' distribution	342,598	341,140	341,140
Total cash distributions	$ 393,882	$ 392,204	$ 392,204
Cash distributions per unit applicable to common limited partners	$ 4.380	$ 4.380	$ 4.380

Actual distribution payments to our general and common limited partners are made within 45 days after the end of each quarter as of a record date that is set after the end of each quarter. The following table summarizes information related to our quarterly cash distributions to our general and common limited partners:

Quarter Ended	Cash Distributions Per Unit	Total Cash Distributions	Record Date	Payment Date
		(Thousands of Dollars)		
December 31, 2016 (a)	$ 1.095	$ 98,971	February 8, 2017	February 13, 2017
September 30, 2016	$ 1.095	$ 98,809	November 8, 2016	November 14, 2016
June 30, 2016	$ 1.095	$ 98,051	August 9, 2016	August 12, 2016
March 31, 2016	$ 1.095	$ 98,051	May 9, 2016	May 13, 2016

(a) The distribution was announced on January 27, 2017.

In addition, the holders of our Preferred Units are entitled to receive quarterly cash distributions at an initial distribution rate of 8.50% per annum of the $25.00 liquidation preference per unit (equal to $2.125 per unit per annum) beginning on March 15, 2017 up to, but not including, December 15, 2021. On and after December 15, 2021, distributions on the Preferred Units accumulate at a percentage of the $25.00 liquidation preference equal to an annual floating rate of the three-month LIBOR plus a spread of 6.766%. On January 27, 2017, we announced a Preferred Unit distribution of $0.64930556 per unit to be paid on March 15, 2017 to holders of record as of March 1, 2017 for distributions accumulated from the issuance date up to the payment date.

Debt Obligations

As of December 31, 2016, we were a party to the following debt agreements:

- the Revolving Credit Agreement due October 29, 2019, with $839.0 million of borrowings outstanding as of December 31, 2016;
- 7.65% senior notes due April 15, 2018 with a face value of $350.0 million; 4.80% senior notes due September 1, 2020 with a face value of $450.0 million; 6.75% senior notes due February 1, 2021 with a face value of $300.0 million; 4.75% senior notes due February 1, 2022 with a face value of $250.0 million; and 7.625% subordinated notes due January 15, 2043 with a face value of $402.5 million;
- $365.4 million in GoZone Bonds due from 2038 to 2041;
- line of credit agreements, with $54.0 million of borrowings outstanding as of December 31, 2016; and
- Receivables Financing Agreement due June 15, 2018, with $58.4 million of borrowings outstanding as of December 31, 2016.

Management believes that we are in compliance with the ratios and covenants contained in our debt instruments. A default under certain of our debt agreements would be considered an event of default under other of our debt instruments. Please refer to Note 13 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for a discussion of our debt agreements.

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Credit Ratings

The following table reflects the current outlook and ratings that have been assigned to our debt:

	Standard & Poor's Ratings Services	Moody's Investor Service Inc.	Fitch, Inc.
Ratings	BB+	Ba1	BB
Outlook	Stable	Stable	Stable

The interest rate payable on the 7.65% senior notes due 2018 and the Revolving Credit Agreement is subject to adjustment if our debt rating is downgraded (or upgraded) by certain credit rating agencies. We may also be required to provide additional credit support for certain contracts, although as of December 31, 2016, we have not been required to provide any additional credit support under those contracts due to credit ratings.

Interest Rate Swaps

As of December 31, 2016 and 2015, we were a party to forward-starting interest rate swap agreements for the purpose of hedging interest rate risk. As of December 31, 2016 and 2015, the aggregate notional amount of these forward-starting interest rate swaps was $600.0 million. Please refer to Note 2 and Note 17 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" and Item 7A. "Quantitative and Qualitative Disclosures about Market Risk" for a more detailed discussion of our interest rate swaps.

Long-Term Contractual Obligations

The following table presents our long-term contractual obligations and commitments and the related payments due, in total and by period, as of December 31, 2016:

	Payments Due by Period						
	2017	2018	2019	2020	2021	Thereafter	Total
	(Thousands of Dollars)						
Long-term debt maturities	$—	$408,400	$838,992	$450,000	$300,000	$1,017,940	$3,015,332
Interest payments (a)	145,857	141,742	128,179	103,285	72,808	1,087,423	1,679,294
Operating leases (b)	31,041	29,316	22,718	10,861	5,314	56,461	155,711
Purchase obligations (c)	4,088	2,630	1,449	42	—	—	8,209

(a) The interest payments calculated for our variable-rate debt are based on forward LIBOR interest rates and the outstanding borrowings as of December 31, 2016. The interest payments on our fixed-rate debt are based on the stated interest rates and the outstanding borrowings as of December 31, 2016.

(b) Our operating leases consist primarily of leases for tugs and barges utilized at our St. Eustatius facility and land leases at various terminal facilities.

(c) A purchase obligation is an enforceable and legally binding agreement to purchase goods or services that specifies significant terms, including (i) fixed or minimum quantities to be purchased, (ii) fixed, minimum or variable price provisions and (iii) the approximate timing of the transaction.

We also have pension and other postretirement benefit obligations recorded in "Other long-term liabilities" on our consolidated balance sheets which have been excluded from the contractual obligations table above due to the uncertainty in timing as to the future cash flows related to these obligations. For additional information on our pension and other postretirement benefit obligations see Note 23 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data."

Environmental, Health and Safety

Our operations are subject to extensive federal, state and local environmental laws and regulations, in the U.S. and in the other countries in which we operate, including those relating to the discharge of materials into the environment, waste management, remediation, the characteristics and composition of fuels and pollution prevention measures, among others. Our operations are also subject to extensive federal, state and local health and safety laws and regulations, including those relating to worker and pipeline safety, pipeline integrity and operator qualifications. Because more stringent environmental and safety laws and regulations are continuously being enacted or proposed, the level of future expenditures required for environmental, health and safety matters is expected to increase in the future.

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The balance of and changes in our accruals for environmental matters as of and for the years ended December 31, 2016 and 2015 are included in Note 14 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data." We believe that we have adequately accrued for our environmental exposures.

Contingencies

We are subject to certain loss contingencies, the outcomes of which could have an adverse effect on our cash flows and results of operations, as further disclosed in Note 15 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data."

RELATED PARTY TRANSACTIONS

Please refer to Note 18 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for a discussion of our related party transactions.

CRITICAL ACCOUNTING POLICIES

The preparation of financial statements in accordance with U.S. generally accepted accounting principles requires management to select accounting policies and to make estimates and assumptions related thereto that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates. The accounting policies below are considered critical due to judgments made by management and the sensitivity of these estimates to deviations of actual results from management's assumptions. The critical accounting policies should be read in conjunction with Note 2 of the Notes to the Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data," which summarizes our significant accounting policies.

Depreciation

We calculate depreciation expense using the straight-line method over the estimated useful lives of our property, plant and equipment. Due to the expected long useful lives of our property, plant and equipment, we depreciate our property, plant and equipment over periods ranging from 5 years to 40 years. Changes in the estimated useful lives of our property, plant and equipment could have a material adverse effect on our results of operations.

Impairment of Long-Lived Assets

We test long-lived assets for recoverability whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. We evaluate recoverability using undiscounted estimated net cash flows generated by the related asset or asset group. If the results of that evaluation indicate that the undiscounted cash flows are less than the carrying amount of the asset (i.e., the asset is not recoverable) we perform an impairment analysis. If our intent is to hold the asset for continued use, we determine the amount of impairment as the amount by which the net carrying value exceeds its fair value. If our intent is to sell the asset, and the criteria required to classify an asset as held for sale are met, we determine the amount of impairment as the amount by which the net carrying amount exceeds its fair value less costs to sell.

Impairment of Goodwill

We perform an assessment of goodwill annually or more frequently if events or changes in circumstances warrant. Our qualitative annual assessment includes, among other things, industry and market considerations, overall financial performance, other entity-specific events and events affecting individual reporting units. If after assessing the totality of events or circumstances for each reporting unit, we determine that it is more likely than not that the carrying value exceeds its fair value, then we perform an impairment test for that reporting unit.

We recognize an impairment of goodwill if the carrying value of goodwill exceeds its estimated fair value. In order to estimate the fair value of goodwill, management must make certain estimates and assumptions that affect the total fair value of the reporting unit including, among other things, an assessment of market conditions, projected cash flows, discount rates and growth rates. Management's estimates of projected cash flows related to the reporting unit include, but are not limited to, future earnings of the reporting unit, assumptions about the use or disposition of the asset, estimated remaining life of the asset, and future expenditures necessary to maintain the asset's existing service potential.

We calculate the estimated fair value of each of our reporting units using a weighted-average of values calculated using an income approach and a market approach. The income approach involves estimating the fair value of each reporting unit by discounting its estimated future cash flows using a discount rate, consistent with a market participant's assumption. The market approach bases the fair value measurement on information obtained from observed stock prices of public companies and recent merger and acquisition transaction data of comparable entities.

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We determined that no impairment charges resulted from our October 1, 2016 impairment assessment. Furthermore, our assessment did not reflect any reporting units at risk of failing step one of the goodwill impairment test, which compares the fair value of the reporting unit to its carrying value including goodwill.

Derivative Financial Instruments

We utilize various derivative instruments to manage our exposure to interest rate risk and commodity price risk. We record derivative instruments in the consolidated balance sheets at fair value, and apply hedge accounting when appropriate. We record changes to the fair values of derivative instruments in earnings for fair value hedges or as part of accumulated other comprehensive income (AOCI) for the effective portion of cash flow hedges. We reclassify the effective portion of cash flow hedges from AOCI to earnings when the underlying forecasted transaction occurs or becomes probable not to occur. We recognize ineffectiveness resulting from our derivatives immediately in earnings. With respect to cash flow hedges, we must exercise judgment to assess the probability of the forecasted transaction, which, among other things, depends upon market factors and our ability to reliably operate our assets.

Defined Benefit Plans

We estimate pension and other postretirement benefit obligations and costs based on actuarial valuations. The annual measurement date for our pension and other postretirement benefit plans is December 31. The actuarial valuations require the use of certain assumptions including discount rates, expected long-term rates of return on plan assets and expected rates of compensation increase. Changes in these assumptions are primarily influenced by factors outside our control. The discount rate is based on a hypothetical yield curve represented by a series of annualized individual discount rates. Each bond issue underlying the hypothetical yield curve required an average rating of double-A, when averaging all available ratings by Moody’s Investor Service Inc., Standard & Poor’s Ratings Services and Fitch, Inc. The resulting discount rates were 4.33% and 4.49% for our pension and other postretirement benefit plans, respectively, as of December 31, 2016. The expected long-term rate of return on plan assets is based on the weighted averages of the expected long-term rates of return for each asset class of investments held in our plans as determined using historical data and the assumption that capital markets are informationally efficient. The expected rate of compensation increase represents average long-term salary increases.

These assumptions can have an effect on the amounts reported in our consolidated financial statements. The effect of a 0.25% change in the specified assumptions would have the following effects (in thousands):

	Pension Benefits	Other Postretirement Benefits
Increase in benefit obligation as of December 31, 2016 from:		
Discount rate decrease	$ 5,300	$ 400
Compensation rate increase	1,500	n/a
Increase in net periodic benefit cost for the year ending December 31, 2017 resulting from:		
Discount rate decrease	$ 400	$ 100
Expected long-term rate of returns on plan assets decrease	300	n/a
Compensation rate increase	400	n/a

Please refer to Note 23 of the Notes to Consolidated Financial Statements in Item 8. “Financial Statements and Supplementary Data” for further discussion of our pension and other postretirement benefit obligations.

Environmental Liabilities

Environmental remediation costs are expensed and an associated accrual is established when site restoration and environmental remediation and cleanup obligations are either known or considered probable and can be reasonably estimated. These environmental obligations are based on estimates of probable undiscounted future costs using currently available technology and applying current regulations, as well as our own internal environmental policies. The environmental liabilities have not been reduced by possible recoveries from third parties. Environmental costs include initial site surveys, costs for remediation and restoration and ongoing monitoring costs, as well as fines, damages and other costs, when estimable. Adjustments to initial estimates are recorded, from time to time, to reflect changing circumstances and estimates based upon additional information developed in subsequent periods. Environmental liabilities are difficult to assess and estimate due to unknown factors, such as the timing and extent of remediation, the determination of our liability in proportion to other parties, improvements in cleanup technologies and the extent to which environmental laws and regulations may change in the future. We believe that we have adequately accrued for our environmental exposures.

Contingencies

We accrue for costs relating to litigation, claims and other contingent matters when such liabilities become probable and reasonably estimable. Such estimates may be based on advice from third parties or on management's judgment, as appropriate. Due to the inherent uncertainty of litigation, actual amounts paid may differ from amounts estimated, and such differences will be charged to income in the period when final determination is made.

NEW ACCOUNTING PRONOUNCEMENTS

Please refer to Note 3 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for a discussion of new accounting pronouncements.

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ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

We manage our exposure to changing interest rates principally through the use of a combination of fixed-rate debt and variable-rate debt. In addition, we utilize forward-starting interest rate swap agreements to lock in the rate on the interest payments related to forecasted debt issuances. Borrowings under our variable-rate debt expose us to increases in interest rates.

Please refer to Note 2 and Note 17 of the Notes to Consolidated Financial Statements in Item 8. “Financial Statements and Supplementary Data” for a more detailed discussion of our interest rate swaps. The following tables present principal cash flows and related weighted-average interest rates by expected maturity dates for our long-term debt:

	December 31, 2016							
	Expected Maturity Dates							
	2017	2018	2019	2020	2021	There-after	Total	Fair Value
	(Thousands of Dollars, Except Interest Rates)							
Long-term Debt:								
Fixed-rate	$—	$350,000	$—	$450,000	$300,000	$652,500	$1,752,500	$1,821,261
Weighted-average interest rate	—	8.2 %	—	4.8 %	6.8 %	6.5 %	6.4 %	
Variable-rate	$—	$58,400	$838,992	$—	$—	$365,440	$1,262,832	$1,263,501
Weighted-average interest rate	—	1.6 %	2.5 %	—	— %	0.7 %	1.9 %	

	December 31, 2015							
	Expected Maturity Dates							
	2016	2017	2018	2019	2020	There-after	Total	Fair Value
	(Thousands of Dollars, Except Interest Rates)							
Long-term Debt:								
Fixed-rate	$—	$—	$350,000	$—	$450,000	$952,500	$1,752,500	$1,626,785
Weighted-average interest rate	—	—	8.2 %	—	4.8 %	6.6 %	6.4 %	
Variable-rate	$—	$—	$53,500	$882,664	$—	$365,440	$1,301,604	$1,302,653
Weighted-average interest rate	—	—	1.2 %	2.1 %	—	0.1 %	1.5 %	

The following table presents information regarding our forward-starting interest rate swap agreements:

Notional Amount December 31, 2016	Period of Hedge	Weighted-Average Fixed Rate	Fair Value as of December 31,	
			2016	2015
(Thousands of Dollars)			(Thousands of Dollars)	
$350,000	04/2018 - 04/2028	2.6 %	$(1,333)	$140
250,000	09/2020 - 09/2030	2.8 %	15	1,163
$600,000		2.7 %	$(1,318)	$1,303

Commodity Price Risk

Since the operations of our fuels marketing segment expose us to commodity price risk, we use derivative instruments to attempt to mitigate the effects of commodity price fluctuations. The derivative instruments we use consist primarily of commodity futures and swap contracts. Please refer to our derivative financial instruments accounting policy in Note 2 of the Notes to Consolidated Financial Statements in Item 8. “Financial Statements and Supplementary Data” for further information on our various types of derivatives.

We have a risk management committee that oversees our trading policies and procedures and certain aspects of risk management. Our risk management committee also reviews all new risk management strategies in accordance with our risk management policy, as approved by our board of directors.

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The commodity contracts disclosed below represent only those contracts exposed to commodity price risk at the end of the period. Please refer to Note 17 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for the volume and related fair value of all commodity contracts.

	December 31, 2016			
	Contract Volume	Weighted Average Pay Price	Weighted Average Receive Price	Fair Value of Current Asset (Liability)
	(Thousands of Barrels)			(Thousands of Dollars)
Fair Value Hedges:				
Futures – long:				
(crude oil and refined products)	47	$55.53	N/A	$ 2
Futures – short:				
(crude oil and refined products)	107	N/A	$ 58.79	$ (243)
Swaps – long:				
(refined products)	84	$45.99	N/A	$ 141
Swaps – short:				
(refined products)	573	N/A	$ 41.87	$ (3,322)
Economic Hedges and Other Derivatives:				
Futures – long:				
(crude oil and refined products)	18	$72.06	N/A	$ 10
Futures – short:				
(crude oil and refined products)	9	N/A	$ 71.88	$ (7)
Swaps – long:				
(refined products)	869	$42.20	N/A	$ 4,737
Swaps – short:				
(refined products)	874	N/A	$ 41.40	$ (5,459)
Forward purchase contracts:				
(crude oil)	310	$52.78	N/A	$ 499
Forward sales contracts:				
(crude oil)	310	N/A	$ 52.76	$ (507)
Total fair value of open positions exposed to commodity price risk				$ (4,149)

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	December 31, 2015			
	Contract Volumes	Weighted Average Pay Price	Weighted Average Receive Price	Fair Value of Current Asset (Liability)
	(Thousands of Barrels)			(Thousands of Dollars)
Fair Value Hedges:				
Futures – long:				
(crude oil and refined products)	38	$37.85	N/A	$ 1
Futures – short:				
(crude oil and refined products)	59	N/A	$ 39.07	$ 68
Swaps – long:				
(refined products)	129	$23.83	N/A	$ (18)
Swaps – short:				
(refined products)	784	N/A	$ 26.28	$ 1,864
Economic Hedges and Other Derivatives:				
Futures – long:				
(crude oil and refined products)	87	$44.81	N/A	$ (48)
Futures – short:				
(crude oil and refined products)	196	N/A	$ 43.54	$ 149
Swaps – long:				
(refined products)	1,532	$28.19	N/A	$ (8,529)
Swaps – short:				
(refined products)	1,435	N/A	$ 33.01	$ 14,931
Forward purchase contracts:				
(crude oil)	248	$36.99	N/A	$ 193
Forward sales contracts:				
(crude oil)	248	N/A	$ 36.82	$ (235)
Total fair value of open positions exposed to commodity price risk				$ 8,376

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Management’s Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining effective internal control over financial reporting as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. Our management assessed the effectiveness of NuStar Energy L.P.’s internal control over financial reporting as of December 31, 2016. In its evaluation, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework (2013). Based on this assessment, management believes that, as of December 31, 2016, our internal control over financial reporting was effective based on those criteria.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

The effectiveness of internal control over financial reporting as of December 31, 2016 has been audited by KPMG LLP, the independent registered public accounting firm who audited our consolidated financial statements included in this Form 10-K. KPMG LLP’s attestation on the effectiveness of our internal control over financial reporting appears on page 61.

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Report of Independent Registered Public Accounting Firm
The Board of Directors of NuStar GP, LLC
and Unitholders of NuStar Energy L.P.:

We have audited the accompanying consolidated balance sheets of NuStar Energy L.P. (a Delaware limited partnership) and subsidiaries (the Partnership) as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, partners’ equity, and cash flows for each of the years in the three-year period ended December 31, 2016. These consolidated financial statements are the responsibility of the Partnership’s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of NuStar Energy L.P. and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), NuStar Energy L.P. and subsidiaries’ internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 23, 2017 expressed an unqualified opinion on the effectiveness of the Partnership’s internal control over financial reporting.

/s/ KPMG LLP
San Antonio, Texas
February 23, 2017

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Report of Independent Registered Public Accounting Firm
The Board of Directors of NuStar GP, LLC
and Unitholders of NuStar Energy L.P.:

We have audited NuStar Energy L.P. (a Delaware limited partnership) and subsidiaries' (the Partnership's) internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Partnership's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Partnership's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

In our opinion, NuStar Energy L.P. and subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework (2013) issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of NuStar Energy L.P. and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, partners' equity, and cash flows for each of the years in the three-year period ended December 31, 2016, and our report dated February 23, 2017 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP
San Antonio, Texas
February 23, 2017

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NUSTAR ENERGY L.P. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(Thousands of Dollars, Except Unit Data)

	December 31, 2016	2015
Assets		
Current assets:		
Cash and cash equivalents	$35,942	$118,862
Accounts receivable, net of allowance for doubtful accounts of $7,756 and $8,473 as of December 31, 2016 and 2015, respectively	170,293	145,064
Receivable from related party	317	—
Inventories	37,945	38,749
Other current assets	132,686	31,176
Total current assets	377,183	333,851
Property, plant and equipment, at cost	5,435,278	5,209,160
Accumulated depreciation and amortization	(1,712,995)	(1,525,589)
Property, plant and equipment, net	3,722,283	3,683,571
Intangible assets, net	127,083	112,011
Goodwill	696,637	696,637
Deferred income tax asset	2,051	2,858
Other long-term assets, net	105,308	296,597
Total assets	$5,030,545	$5,125,525
Liabilities and Partners' Equity		
Current liabilities:		
Accounts payable	$118,686	$125,147
Payable to related party	—	14,799
Short-term debt	54,000	84,000
Accrued interest payable	34,030	34,286
Accrued liabilities	60,485	55,194
Taxes other than income tax	15,685	12,810
Income tax payable	6,510	5,977
Total current liabilities	289,396	332,213
Long-term debt	3,014,364	3,055,612
Long-term payable to related party	—	32,080
Deferred income tax liability	22,204	24,810
Other long-term liabilities	92,964	70,966
Commitments and contingencies (Note 15)		
Partners' equity:		
Series A preferred limited partners (9,060,000 preferred units outstanding as of December 31, 2016)	218,400	—
Common limited partners (78,616,228 and 77,886,078 common units outstanding as of December 31, 2016 and 2015, respectively)	1,455,642	1,661,900
General partner	31,752	36,738
Accumulated other comprehensive loss	(94,177)	(88,794)
Total partners' equity	1,611,617	1,609,844
Total liabilities and partners' equity	$5,030,545	$5,125,525

See Notes to Consolidated Financial Statements.

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NUSTAR ENERGY L.P. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(Thousands of Dollars, Except Unit and Per Unit Data)

	Year Ended December 31,		
	2016	2015	2014
Revenues:			
Service revenues	$1,083,165	$1,114,153	$1,026,446
Product sales	673,517	969,887	2,048,672
Total revenues	1,756,682	2,084,040	3,075,118
Costs and expenses:			
Cost of product sales	633,653	907,574	1,967,528
Operating expenses:			
Third parties	426,686	337,466	347,189
Related party	21,681	135,565	125,736
Total operating expenses	448,367	473,031	472,925
General and administrative expenses:			
Third parties	88,324	35,752	29,146
Related party	10,493	66,769	66,910
Total general and administrative expenses	98,817	102,521	96,056
Depreciation and amortization expense	216,736	210,210	191,708
Total costs and expenses	1,397,573	1,693,336	2,728,217
Operating income	359,109	390,704	346,901
Equity in earnings of joint ventures	—	—	4,796
Interest expense, net	(138,350)	(131,868)	(132,281)
Interest income from related party	—	—	1,055
Other (expense) income, net	(58,783)	61,822	4,499
Income from continuing operations before income tax expense	161,976	320,658	224,970
Income tax expense	11,973	14,712	10,801
Income from continuing operations	150,003	305,946	214,169
Income (loss) from discontinued operations, net of tax	—	774	(3,791)
Net income	150,003	306,720	210,378
Less loss attributable to noncontrolling interest	—	—	(395)
Net income attributable to NuStar Energy L.P.	$150,003	$306,720	$210,773
Basic and diluted net income (loss) per common unit:			
Continuing operations	$1.27	$3.29	$2.14
Discontinued operations	—	0.01	(0.04)
Total (Note 21)	$1.27	$3.30	$2.10
Basic weighted-average common units outstanding	78,080,484	77,886,078	77,886,078
Diluted weighted-average common units outstanding	78,113,002	77,886,078	77,886,078

See Notes to Consolidated Financial Statements.

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NUSTAR ENERGY L.P. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Thousands of Dollars)

	Year Ended December 31,		
	2016	2015	2014
Net income	$150,003	$306,720	$210,378
Other comprehensive loss:			
Foreign currency translation adjustment	(8,243)	(31,987)	(15,614)
Net loss on pension and other postretirement benefit adjustments, net of income tax benefit of $60	(2,850)	—	—
Net gain on cash flow hedges	5,710	11,105	10,663
Total other comprehensive loss	(5,383)	(20,882)	(4,951)
Comprehensive income	144,620	285,838	205,427
Less comprehensive loss attributable to noncontrolling interest	—	—	(828)
Comprehensive income attributable to NuStar Energy L.P.	$144,620	$285,838	$206,255

See Notes to Consolidated Financial Statements.

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NUSTAR ENERGY L.P. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Thousands of Dollars)

	Year Ended December 31,		
	2016	2015	2014
Cash Flows from Operating Activities:			
Net income	$150,003	$306,720	$210,378
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization expense	216,736	210,210	191,708
Unit-based compensation expense	7,579	—	—
Amortization of debt related items	7,477	8,840	8,969
Loss (gain) on sale or disposition of assets	64	(1,617)	(3,853)
Gain associated with the Linden Acquisition	—	(56,277)	—
Impairment loss	58,655	—	4,201
Deferred income tax (benefit) expense	(469)	2,058	3,467
Equity in earnings of joint ventures	—	—	(4,796)
Distributions of equity in earnings of joint ventures	—	2,500	7,587
Changes in current assets and current liabilities (Note 22)	3,716	50,559	82,418
Other, net	(7,000)	1,944	18,444
Net cash provided by operating activities	436,761	524,937	518,523
Cash Flows from Investing Activities:			
Capital expenditures	(204,358)	(324,808)	(356,965)
Change in accounts payable related to capital expenditures	(11,063)	(3,156)	4,903
Acquisitions	(95,657)	(142,500)	—
Investment in other long-term assets	—	(3,564)	—
Proceeds from sale or disposition of assets	—	17,132	26,012
Proceeds from insurance recoveries	—	4,867	—
Increase in note receivable from Axeon	—	—	(13,328)
Other, net	—	—	(853)
Net cash used in investing activities	(311,078)	(452,029)	(340,231)
Cash Flows from Financing Activities:			
Proceeds from long-term debt borrowings	752,729	860,131	743,719
Proceeds from short-term debt borrowings	654,000	823,500	574,900
Long-term debt repayments	(772,152)	(500,410)	(623,770)
Short-term debt repayments	(684,000)	(816,500)	(497,900)
Proceeds from issuance of preferred units, net of issuance costs	218,400	—	—
Proceeds from issuance of common units, net of issuance costs	27,710	—	—
Contributions from general partner	680	—	—
Distributions to common unitholders and general partner	(392,962)	(392,204)	(392,204)
(Decrease) increase in cash book overdrafts	(11,237)	(2,954)	12,851
Other, net	(4,492)	(792)	(5,781)
Net cash used in financing activities	(211,324)	(29,229)	(188,185)
Effect of foreign exchange rate changes on cash	2,721	(12,729)	(2,938)
Net (decrease) increase in cash and cash equivalents	(82,920)	30,950	(12,831)
Cash and cash equivalents as of the beginning of the period	118,862	87,912	100,743
Cash and cash equivalents as of the end of the period	$35,942	$118,862	$87,912

See Notes to Consolidated Financial Statements.

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NUSTAR ENERGY L.P. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF PARTNERS' EQUITY
Years Ended December 31, 2016, 2015 and 2014
(Thousands of Dollars, Except Unit Data)

	Limited Partners Series A Preferred		Common						
	Units	Amount	Units	Amount	General Partner	Accumulated Other Comprehensive Loss	Total NuStar Energy L.P. Partners' Equity	Noncontrolling Interest	Total Partners' Equity
Balance as of January 1, 2014	—	$—	77,886,078	$1,921,726	$43,804	$(63,394)	$1,902,136	$1,658	$1,903,794
Net income (loss)	—	—	—	164,201	46,572	—	210,773	(395)	210,378
Other comprehensive loss	—	—	—	—	—	(4,518)	(4,518)	(433)	(4,951)
Distributions to partners	—	—	—	(341,140)	(51,064)	—	(392,204)	—	(392,204)
Other	—	—	—	23	—	—	23	(830)	(807)
Balance as of December 31, 2014	—	—	77,886,078	1,744,810	39,312	(67,912)	1,716,210	—	1,716,210
Net income	—	—	—	258,230	48,490	—	306,720	—	306,720
Other comprehensive loss	—	—	—	—	—	(20,882)	(20,882)	—	(20,882)
Distributions to partners	—	—	—	(341,140)	(51,064)	—	(392,204)	—	(392,204)
Balance as of December 31, 2015	—	—	77,886,078	1,661,900	36,738	(88,794)	1,609,844	—	1,609,844
Net income	—	1,925	—	102,580	45,498	—	150,003	—	150,003
Other comprehensive loss	—	—	—	—	—	(5,383)	(5,383)	—	(5,383)
Distributions to partners	—	(1,925)	—	(341,798)	(51,164)	—	(394,887)	—	(394,887)
Issuance of units, including contribution from general partner	9,060,000	218,400	595,050	27,710	575	—	246,685	—	246,685
Unit-based compensation	—	—	135,100	5,250	105	—	5,355	—	5,355
Balance as of	9,060,000	$218,400	78,616,228	$1,455,642	$31,752	$(94,177)	$1,611,617	$—	$1,611,617

December 31,
2016
See Notes to Consolidated Financial Statements.

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NUSTAR ENERGY L.P. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
Years Ended December 31, 2016, 2015 and 2014

1. ORGANIZATION AND OPERATIONS

Organization

NuStar Energy L.P. (NYSE: NS) is engaged in the transportation of petroleum products and anhydrous ammonia, the terminalling and storage of petroleum products and the marketing of petroleum products. Unless otherwise indicated, the terms “NuStar Energy,” “NS,” “the Partnership,” “we,” “our” and “us” are used in this report to refer to NuStar Energy L.P one or more of our consolidated subsidiaries or to all of them taken as a whole. NuStar GP Holdings, LLC (NuStar GP Holdings or NSH) (NYSE: NSH) owns our general partner, Riverwalk Logistics, L.P., and owns an approximate 13% common limited partner interest in us as of December 31, 2016.

Employee Transfer from NuStar GP, LLC. On March 1, 2016, NuStar GP, LLC, the general partner of our general partner and a wholly owned subsidiary of NuStar GP Holdings, transferred and assigned to NuStar Services Company LLC (NuStar Services Co), a wholly owned subsidiary of NuStar Energy, all of NuStar GP, LLC’s employees and related benefit plans, programs, contracts and policies (the Employee Transfer). As a result of the Employee Transfer, we pay employee costs directly and sponsor the long-term incentive plan and other employee benefit plans. Please refer to Note 18 for further discussion of the Employee Transfer and our related party agreements, Note 23 for a discussion of our employee benefit plans and Note 24 for a discussion of our long-term incentive plan.

Operations

We conduct our operations through our subsidiaries, primarily NuStar Logistics, L.P. (NuStar Logistics) and NuStar Pipeline Operating Partnership L.P. (NuPOP). We have three business segments: pipeline, storage and fuels marketing.

Pipeline. We own 3,140 miles of refined product pipelines and 1,230 miles of crude oil pipelines, as well as approximately 4.0 million barrels of storage capacity, which comprise our Central West System. In addition, we own 2,370 miles of refined product pipelines, consisting of the East and North Pipelines, and a 2,000 mile ammonia pipeline, which comprise our Central East System. The East and North Pipelines have storage capacity of approximately 6.7 million barrels. We charge tariffs on a per barrel basis for transporting refined products, crude oil and other feedstocks in our refined product and crude oil pipelines and on a per ton basis for transporting anhydrous ammonia in the Ammonia Pipeline.

Storage. We own terminal and storage facilities in the United States, Canada, Mexico, the Netherlands, including St. Eustatius in the Caribbean, and the United Kingdom, with approximately 84.9 million barrels of storage capacity. Our terminal and storage facilities provide storage, handling and other services on a fee basis for petroleum products, crude oil, specialty chemicals and other liquids.

Fuels Marketing. Within our fuels marketing operations, we purchase crude oil and refined petroleum products for resale. The activities of the fuels marketing segment expose us to the risk of fluctuations in commodity prices, which has a direct impact on the segment’s results of operations. We enter into derivative contracts to attempt to mitigate the effect of commodity price fluctuations.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Consolidation

The accompanying consolidated financial statements represent the consolidated operations of the Partnership and our subsidiaries. Noncontrolling interests are separately disclosed on the financial statements. Inter-partnership balances and transactions have been eliminated in consolidation. The operations of certain pipelines and terminals in which we own an undivided interest are proportionately consolidated in the accompanying consolidated financial statements.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates. On an ongoing basis, management reviews their estimates based on currently available information. Management may revise estimates due to changes in facts and circumstances.

Cash and Cash Equivalents

Cash equivalents are all highly liquid investments with an original maturity of three months or less when acquired.

Accounts Receivable

Accounts receivable represent valid claims against non-affiliated customers for products sold or services rendered. We extend credit terms to certain customers after review of various credit indicators, including the customer's credit rating. Outstanding customer receivable balances are regularly reviewed for possible non-payment indicators and allowances for doubtful accounts are recorded based upon management's estimate of collectability at the time of their review.

Inventories

Inventories consist of crude oil, refined petroleum products and materials and supplies. Inventories, except those associated with a qualifying fair value hedge, are valued at the lower of cost or market. Cost is determined using the weighted-average cost method. Our inventory, other than materials and supplies, consists of one end-product category, petroleum products, which we include in the fuels marketing segment. Accordingly, we determine lower of cost or market adjustments on an aggregate basis. Inventories associated with qualifying fair value hedges are valued at current market prices. Materials and supplies are valued at the lower of average cost or market.

Property, Plant and Equipment

We record additions to property, plant and equipment, including reliability and strategic capital expenditures, at cost. Repair and maintenance costs associated with existing assets that are minor in nature and do not extend the useful life of existing assets are charged to operating expenses as incurred. Depreciation of property, plant and equipment is recorded on a straight-line basis over the estimated useful lives of the related assets. When property or equipment is retired, sold or otherwise disposed of, the difference between the carrying value and the net proceeds is recognized in "Other (expense) income, net" in the consolidated statements of income in the year of disposition.

We capitalize overhead costs and interest costs incurred on funds used to construct property, plant and equipment while the asset is under construction. The overhead costs and capitalized interest are recorded as part of the asset to which they relate and are amortized over the asset's estimated useful life as a component of depreciation expense.

Goodwill

We assess goodwill for impairment annually on October 1, or more frequently if events or changes in circumstances indicate it might be impaired. We have the option to first assess qualitative factors to determine whether it is necessary to perform a quantitative goodwill impairment test. We performed a quantitative goodwill impairment test as of October 1, 2016 and 2015, and we determined that no impairment charges occurred.

We calculate the estimated fair value of each of our reporting units using a weighted-average of values calculated using an income approach and a market approach. The income approach involves estimating the fair value of each reporting unit by discounting its estimated future cash flows using a discount rate that would be consistent with a market participant's assumption. The market approach bases the fair value measurement on information obtained from observed stock prices of public companies and recent merger and acquisition transaction data of comparable entities. Our reporting units to which goodwill has been allocated consist of the following:

- crude oil pipelines;
- refined product pipelines;
- terminals, excluding our St. Eustatius and Point Tupper facilities; and
- bunkering activity at our St. Eustatius and Point Tupper facilities.

The quantitative impairment test for goodwill consists of a two-step process. Step 1 compares the fair value of the reporting unit to its carrying value including goodwill. The carrying value of each reporting unit equals the total identified assets (including goodwill) less the sum of each reporting unit's identified liabilities. We used reasonable and supportable methods to assign the assets and liabilities to the appropriate reporting units in a consistent manner. If the carrying value exceeds fair value, there is a potential impairment and step 2 must be performed to determine the amount of goodwill impairment. Step 2 compares the carrying value of the reporting unit’s goodwill to its implied fair value using a hypothetical allocation of the reporting unit’s fair value. If the goodwill carrying value exceeds its implied fair value, the excess is reported as impairment.

Investment in Joint Ventures

We account for investment in joint ventures using the equity method of accounting. We reported our portion of the results of operations for our equity method investments in “Equity in earnings of joint ventures” in the consolidated statements of income. On January 2, 2015, we acquired full ownership of ST Linden Terminal, LLC (Linden), which owns a refined products terminal in Linden, NJ with 4.3 million barrels of storage capacity (the Linden Acquisition). See Note 4 for additional information on the Linden Acquisition. On February 26, 2014, we sold our remaining 50% ownership interest in Axeon Specialty Products LLC. See Note 5 for additional discussion.

Impairment of Long-Lived Assets

We review long-lived assets, including property, plant and equipment, for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. We evaluate recoverability using undiscounted estimated net cash flows generated by the related asset or asset group. If the results of that evaluation indicate that the undiscounted cash flows are less than the carrying amount of the asset (i.e., the asset is not recoverable) we perform an impairment analysis. If our intent is to hold the asset for continued use, we determine the amount of impairment as the amount by which the net carrying value exceeds its fair value. If our intent is to sell the asset, and the criteria required to classify an asset as held for sale are met, we determine the amount of impairment as the amount by which the net carrying amount exceeds its fair value less costs to sell. We believe that the carrying amounts of our long-lived assets as of December 31, 2016 are recoverable.

Income Taxes

We are a limited partnership and generally are not subject to federal or state income taxes. Accordingly, our taxable income or loss, which may vary substantially from income or loss reported for financial reporting purposes, is generally included in the federal and state income tax returns of our partners. For transfers of publicly held units subsequent to our initial public offering, we have made an election permitted by Section 754 of the Internal Revenue Code (the Code) to adjust the common unit purchaser’s tax basis in our underlying assets to reflect the purchase price of the units. This results in an allocation of taxable income and expenses to the purchaser of the common units, including depreciation deductions and gains and losses on sales of assets, based upon the new unitholder’s purchase price for the common units.

We conduct certain of our operations through taxable wholly owned corporate subsidiaries. We account for income taxes related to our taxable subsidiaries using the asset and liability method. Under this method, we recognize deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. We measure deferred taxes using enacted tax rates expected to apply to taxable income in the year those temporary differences are expected to be recovered or settled.

We recognize a tax position if it is more-likely-than-not that the tax position will be sustained, based on the technical merits of the position, upon examination. We record uncertain tax positions in the financial statements at the largest amount of benefit that is more-likely-than-not to be realized. We had no unrecognized tax benefits as of December 31, 2016 and 2015.

NuStar Energy and certain of its subsidiaries file income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. For U.S. federal and state purposes, as well as for our major non-U.S. jurisdictions, tax years subject to examination are 2012 through 2015, according to standard statute of limitations.

Asset Retirement Obligations

We record a liability for asset retirement obligations at the fair value of the estimated costs to retire a tangible long-lived asset at the time we incur that liability, which is generally when the asset is purchased, constructed or leased, when we have a legal obligation to incur costs to retire the asset and when a reasonable estimate of the fair value of the obligation can be made. If a reasonable estimate cannot be made at the time the liability is incurred, we record the liability when sufficient information is available to estimate the fair value.

We have asset retirement obligations with respect to certain of our assets due to various legal obligations to clean and/or dispose of those assets at the time they are retired. However, these assets can be used for an extended and indeterminate period of time as long as they are properly maintained and/or upgraded. It is our practice and current intent to maintain our assets and continue making improvements to those assets based on technological advances. As a result, we believe that our assets have indeterminate lives for purposes of estimating asset retirement obligations because dates or ranges of dates upon which we would retire these assets cannot reasonably be estimated at this time. When a date or range of dates can reasonably be estimated for the retirement of any asset, we estimate the costs of performing the retirement activities and record a liability for the fair value of these costs.

We also have legal obligations in the form of leases and right-of-way agreements, which require us to remove certain of our assets upon termination of the agreement. However, these lease or right-of-way agreements generally contain automatic renewal provisions that extend our rights indefinitely or we have other legal means available to extend our rights. We have recorded a liability of approximately $0.6 million as of December 31, 2016 and 2015, which is included in “Other long-term liabilities” in the consolidated balance sheets, for conditional asset retirement obligations related to the retirement of terminal assets with lease and right-of-way agreements.

Environmental Remediation Costs

Environmental remediation costs are expensed and an associated accrual established when site restoration and environmental remediation and cleanup obligations are either known or considered probable and can be reasonably estimated. These environmental obligations are based on estimates of probable undiscounted future costs using currently available technology and applying current regulations, as well as our own internal environmental policies. The environmental liabilities have not been reduced by possible recoveries from third parties. Environmental costs include initial site surveys, costs for remediation and restoration and ongoing monitoring costs, as well as fines, damages and other costs, when estimable. Adjustments to initial estimates are recorded, from time to time, to reflect changing circumstances and estimates based upon additional information developed in subsequent periods.

Product Imbalances

We incur product imbalances as a result of variances in pipeline meter readings and volume fluctuations within the East Pipeline system due to pressure and temperature changes. We use quoted market prices as of the reporting date to value our assets and liabilities related to product imbalances. Product imbalance liabilities are included in “Accrued liabilities” and product imbalance assets are included in “Other current assets” in the consolidated balance sheets.

Revenue Recognition

Revenues for the pipeline segment are derived from interstate and intrastate pipeline transportation of refined product, crude oil and anhydrous ammonia. Transportation revenues (based on pipeline tariffs) are recognized as the refined product, crude oil or anhydrous ammonia is delivered out of the pipelines.

Revenues for the storage segment include fees for tank storage agreements, whereby a customer agrees to pay for a certain amount of storage in a tank over a period of time (storage terminal revenues), and throughput agreements, whereby a customer pays a fee per barrel for volumes moving through our terminals (throughput terminal revenues). Our terminals also provide blending, additive injections, handling and filtering services for which we charge additional fees. Certain of our facilities charge fees to provide marine services such as pilotage, tug assistance, line handling, launch service, emergency response services and other ship services. Storage terminal revenues are recognized when services are provided to the customer. Throughput revenues are recognized as refined products or crude oil are received in or delivered out of our terminal and as crude oil and certain other refinery feedstocks are received by the related refinery. Revenues for marine services are recognized as those services are provided.

Revenues from the sale of petroleum products, which are included in our fuels marketing segment, are recognized when product is delivered to the customer and title and risk pass to the customer.

We collect taxes on certain revenue transactions to be remitted to governmental authorities, which may include sales, use, value added and some excise taxes. These taxes are not included in revenue.

Income Allocation

Our partnership agreement, as amended, sets forth the calculation to be used to determine the amount and priority of cash distributions that the unitholders and general partner will receive. The partnership agreement also contains provisions for the allocation of net income to the unitholders and the general partner; however, losses are only allocated to the common unitholders and the general partner. Our net income for each quarterly reporting period is first allocated to the preferred limited partner unitholders in an amount equal to the earned distributions for the respective reporting period and then to the general partner in an amount equal to the general partner’s incentive distribution calculated based upon the declared distribution for the respective reporting period. We allocate the remaining net income or loss among the common unitholders (98%) and general partner (2%), as set forth in our partnership agreement.

Basic and Diluted Net Income Per Common Unit

Basic and diluted net income per common unit is determined pursuant to the two-class method. Under this method, all earnings are allocated to our common limited partners and participating securities based on their respective rights to receive distributions earned during the period. Participating securities include our general partner interest and restricted units awarded under our long-term incentive plan.

We compute basic net income per common unit by dividing net income attributable to our common limited partners by the weighted-average number of common units outstanding during the period. We compute diluted net income per common unit by dividing net income attributable to our common limited partners by the sum of (i) the weighted-average number of common units outstanding during the period and (ii) the effect of dilutive potential common units outstanding during the period. Dilutive potential common units include contingently issuable performance units awarded under our long-term incentive plan. See Note 24 for additional information on our performance units.

Derivative Financial Instruments

We formally document all relationships between hedging instruments and hedged items. This process includes identification of the hedging instrument and the hedged transaction, the nature of the risk being hedged and how the hedging instrument's effectiveness will be assessed. To qualify for hedge accounting, at inception of the hedge we assess whether the derivative instruments that are used in our hedging transactions are expected to be highly effective in offsetting changes in cash flows or the fair value of the hedged items. Throughout the designated hedge period and at least quarterly, we assess whether the derivative instruments are highly effective and continue to qualify for hedge accounting. To assess the effectiveness of the hedging relationship both prospectively and retrospectively, we use regression analysis to calculate the correlation of the changes in the fair values of the derivative instrument and related hedged item.

We record commodity derivative instruments in the consolidated balance sheets at fair value. We recognize mark-to-market adjustments for derivative instruments designated and qualifying as fair value hedges (Fair Value Hedges) and the related change in the fair value of the associated hedged physical inventory or firm commitment within "Cost of product sales." For derivative instruments designated and qualifying as cash flow hedges (Cash Flow Hedges), we record the effective portion of mark-to-market adjustments as a component of accumulated other comprehensive income (loss) (AOCI) until the underlying hedged forecasted transactions occur. Any hedge ineffectiveness is recognized immediately in "Cost of product sales." Once a hedged transaction occurs, we reclassify the effective portion from AOCI to "Cost of product sales." If it becomes probable that a hedged transaction will not occur, then the associated gains or losses are reclassified from AOCI to "Cost of product sales" immediately. For derivative instruments that have associated underlying physical inventory but do not qualify for hedge accounting (Economic Hedges and Other Derivatives), we record the mark-to-market adjustments in "Cost of product sales."

Under the terms of our forward-starting interest rate swap agreements, we pay a fixed rate and receive a variable rate. We entered into the forward-starting swaps in order to hedge the risk of changes in the interest payments attributable to changes in the benchmark interest rate during the period from the effective date of the swap to the issuance of the forecasted debt. We account for the forward-starting interest rate swaps as Cash Flow Hedges, and we recognize the fair value of each interest rate swap in the consolidated balance sheets. We record the effective portion of mark-to-market adjustments as a component of AOCI, and any hedge ineffectiveness is recognized immediately in "Interest expense, net." The amount accumulated in AOCI is amortized into "Interest expense, net" as the forecasted interest payments occur or if the interest payments are probable not to occur.

We classify cash flows associated with our derivative instruments as operating cash flows in the consolidated statements of cash flows, except for receipts or payments associated with terminated forward-starting interest rate swap agreements, which are included in cash flows from financing activities. See Note 17 for additional information regarding our derivative financial instruments.

Operating Leases

We recognize rent expense on a straight-line basis over the lease term, including the impact of both scheduled rent increases and free or reduced rents (commonly referred to as “rent holidays”).

Unit-based Compensation

Unit-based compensation for our long-term incentive plan is recorded in our consolidated balance sheets based on the fair value of the awards granted and recognized as compensation expense primarily on a straight-line basis over the requisite service period. Certain awards issued under our long-term incentive plan provide that the grantee’s award vests immediately upon retirement. Compensation expense is recognized immediately if these awards are granted to retirement-eligible employees, as defined in each award. In addition, if, during a vesting period of a grant, the grantee will become retirement-eligible, then compensation expense associated with the grant is recognized from the grant date through the grantee’s retirement eligibility date.

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Forfeitures of our unit-based compensation awards are recognized as an adjustment to compensation expense when they occur. Unit-based compensation expense is included in “General and administrative expenses” on our consolidated statements of income. See Note 24 for additional information regarding our unit-based compensation.

Margin Deposits

Margin deposits relate to our exchange-traded derivative contracts and generally vary based on changes in the value of the contracts. Margin deposits are included in “Other current assets” in the consolidated balance sheets.

Foreign Currency Translation

The functional currencies of our foreign subsidiaries are the local currency of the country in which the subsidiary is located, except for our subsidiaries located in St. Eustatius in the Caribbean (formerly the Netherlands Antilles), whose functional currency is the U.S. dollar. The assets and liabilities of our foreign subsidiaries with local functional currencies are translated to U.S. dollars at period-end exchange rates, and income and expense items are translated to U.S. dollars at weighted-average exchange rates in effect during the period. These translation adjustments are included in “Accumulated other comprehensive loss” in the equity section of the consolidated balance sheets. Gains and losses on foreign currency transactions are included in “Other (expense) income, net” in the consolidated statements of income.

Reclassifications

Certain previously reported amounts in the 2015 consolidated financial statements and notes have been reclassified to conform to 2016 presentation.

3. NEW ACCOUNTING PRONOUNCEMENTS

Goodwill

In January 2017, the Financial Accounting Standards Board (FASB) issued amended guidance that simplifies the accounting for goodwill impairment by eliminating step 2 of the goodwill impairment test. Under the amended guidance, goodwill impairment will be measured as the excess of the reporting unit’s carrying value over its fair value, not to exceed the carrying amount of goodwill for that reporting unit. The changes are effective for annual and interim periods beginning after December 15, 2019, and amendments should be applied prospectively. Early adoption is permitted for any impairment tests performed after January 1, 2017. We are currently evaluating whether we will early adopt these provisions. However, we do not expect the guidance to have a material impact on our financial position, results of operations or disclosures.

Definition of a Business

In January 2017, the FASB issued amended guidance that clarifies the definition of a business used in evaluating whether a set of transferred assets and activities constitutes a business. Under the amended guidance, if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets, the set of transferred assets and activities would not represent a business. To be considered a business, the set of assets transferred is required to include at least one substantive process that together significantly contribute to the ability to create outputs. In addition, the amended guidance narrows the definition of outputs to be consistent with how outputs are described in the new revenue recognition standard. The changes are effective for annual and interim periods beginning after December 15, 2017, and amendments should be applied prospectively. We are currently evaluating whether we will early adopt these provisions. However, we do not expect the guidance to have a material impact on our financial position, results of operations or disclosures.

Statement of Cash Flows

In August 2016, the FASB issued amended guidance that clarifies how entities should present certain cash receipts and cash payments on the statement of cash flows, including but not limited to debt prepayment or debt extinguishment costs; contingent consideration payments made after a business combination; proceeds from the settlement of insurance claims and distributions received from equity method investees. The changes are effective for annual and interim periods beginning after December 15, 2017, and amendments should be applied retrospectively. We will adopt these provisions January 1, 2018, and we do not expect the guidance to have a material impact on our statements of cash flows or disclosures.

Credit Losses

In June 2016, the FASB issued amended guidance that requires the use of a “current expected loss” model for financial assets measured at amortized cost and certain off-balance sheet credit exposures. Under this model, entities will be required to estimate the lifetime expected credit losses on such instruments based on historical experience, current conditions, and reasonable and supportable forecasts. This amended guidance also expands the disclosure requirements to enable users of financial statements to understand an entity's assumptions, models and methods for estimating expected credit losses. The changes are effective for annual and interim periods beginning after December 15, 2019, and amendments should be applied using a modified retrospective approach. We are currently assessing the impact of this amended guidance on our financial position, results of operations and disclosures.

Unit-Based Payments
In March 2016, the FASB issued amended guidance that simplifies certain aspects of accounting for unit-based payments to employees, including the accounting for income taxes, forfeitures, and statutory tax withholding requirements, as well as classification in the statement of cash flows. The changes are effective for annual and interim periods beginning after December 15, 2016, and early adoption is permitted. Prior to the Employee Transfer discussed in Note 18, we did not sponsor a unit-based compensation plan. Upon completion of the Employee Transfer, we adopted this amended guidance effective January 1, 2016 on a prospective basis, which did not have a material impact on our financial position, results of operations or disclosures. Please refer to Note 24 for a discussion of our long-term incentive plan.

Leases
In February 2016, the FASB issued amended guidance that requires lessees to recognize the assets and liabilities that arise from most leases on the balance sheet. For lessors, this amended guidance modifies the classification criteria and the accounting for sales-type and direct financing leases. The changes are effective for annual and interim periods beginning after December 15, 2018, and amendments should be applied using a modified retrospective approach for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements, with the option to use certain expedients. We currently expect to adopt these provisions on January 1, 2019. We are currently assessing the impact of this amended guidance on our financial position, results of operations and disclosures and plan to provide additional information about the expected financial impact at a future date. See Note 15 for commitments under our current operating lease arrangements.

Financial Instruments
In January 2016, the FASB issued new guidance that addresses certain aspects of recognition, measurement, presentation and disclosure of financial instruments. The changes are effective for annual and interim periods beginning after December 15, 2017, and amendments should be applied by means of a cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption. We will adopt these provisions January 1, 2018, and we do not expect the guidance to have a material impact on our financial position, results of operations or disclosures.

Inventory
In July 2015, the FASB issued amended guidance that requires inventory to be measured at the lower of cost or net realizable value. The changes are effective for annual and interim periods beginning after December 15, 2016, and must be applied prospectively after the date of adoption. We adopted these provisions prospectively on January 1, 2017, and such adoption did not have an impact on our financial position, results of operations or disclosures.

Debt Issuance Costs
In April 2015, the FASB issued amended guidance for the presentation of debt issuance costs. Under the amended guidance, debt issuance costs will be presented on the balance sheet as a deduction from the carrying value of the associated debt liability. In August 2015, the FASB issued amended guidance that would allow debt issuance costs related to line-of-credit agreements to continue to be presented as an asset on the balance sheet. The changes are

effective for annual and interim periods beginning after December 15, 2015, and retrospective application is required. On January 1, 2016, we retrospectively adopted this guidance. As a result, we reclassified $23.7 million of deferred debt issuance costs from “Other long-term assets, net” to “Long-term debt” on the consolidated balance sheet as of December 31, 2015. Unamortized debt issuance costs of $21.2 million are recorded as a reduction to “Long-term debt” on the consolidated balance sheet as of December 31, 2016.

Revenue Recognition

In May 2014, the FASB and the International Accounting Standards Board jointly issued a comprehensive new revenue recognition standard. In August 2015, the FASB deferred the effective date by one year. The standard is now effective for public entities for annual and interim periods beginning after December 15, 2017, using one of two retrospective transition methods. Early adoption is permitted, but not before the original effective date. The FASB has subsequently issued several updates that amend and/or clarify the new revenue recognition standard. Full implementation of the new revenue recognition standard will be completed by the end of 2017. Based on our analysis completed to date, we do not believe the standard will significantly impact the amount or timing of revenues recognized under the vast majority of our revenue contracts. We currently expect to adopt the new guidance using the modified retrospective approach, under which the cumulative effect of initially applying the new guidance is recognized as an adjustment to the opening balance of retained earnings, in the first quarter of 2018. We are continuing to evaluate the impact of this new guidance on our financial position, results of operations and disclosures.

4. ACQUISITIONS

Martin Terminal Acquisition. On December 21, 2016, we acquired crude oil and refined product storage assets in Corpus Christi, TX for $95.7 million, including $2.1 million of capital expenditure reimbursements, from Martin Operating Partnership L.P. (the Martin Terminal Acquisition). The assets acquired are in our storage segment and include 900,000 barrels of crude oil storage capacity, 250,000 barrels of refined product storage capacity and exclusive use of the Port of Corpus Christi’s new crude oil dock.

Linden Acquisition. On January 2, 2015, we acquired full ownership of Linden, which owns a refined products terminal in Linden, NJ with 4.3 million barrels of storage capacity. Linden is located on a 44-acre facility that provides deep-water terminalling capabilities in the New York Harbor and primarily stores petroleum products, including gasoline, jet fuel and fuel oils. Prior to the Linden Acquisition, Linden operated as a joint venture between us and Linden Holding Corp., with each party owning 50%.

In connection with the Linden Acquisition, we ceased applying the equity method of accounting and consolidated Linden, which is included in our storage segment. The consolidated statements of income include the results of operations for Linden commencing on January 2, 2015. On the acquisition date, we remeasured our existing 50% equity investment in Linden to its fair value of $128.0 million and we recognized a gain of $56.3 million in “Other (expense) income, net” in the consolidated statements of income for the year ended December 31, 2015. We estimated the fair value using a market approach and an income approach. The market approach estimates the enterprise value based on an earnings multiple. The income approach calculates fair value by discounting the estimated net cash flows. We funded the acquisition with borrowings under our revolving credit agreement. The acquisition complements our existing storage operations, and having sole ownership of Linden strengthens our presence in the New York Harbor and the East Coast market.

We accounted for the Linden Acquisition using the acquisition method. The purchase price has been allocated based on the estimated fair values of the individual assets acquired and liabilities assumed at the date of the acquisition.

The final purchase price allocation was as follows (in thousands of dollars):

Cash paid for the Linden Acquisition	$142,500
Fair value of liabilities assumed	22,865
Consideration	165,365
Acquisition date fair value of previously held equity interest	128,000
Total	$293,365
Current assets (a)	$9,513
Property, plant and equipment	134,484
Goodwill	79,208
Intangible assets (b)	70,050
Other long-term assets	110
Purchase price allocation	$293,365

(a) Current assets include a receivable of $7.8 million related to a pre-acquisition insurance claim, for which proceeds were received in 2015.
(b) Intangible assets primarily consist of customer contracts and relationships and are being amortized over 10 years.

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5. DISPOSITIONS

Terminal Dispositions

In January 2015, we sold our terminal in Alamogordo, NM with storage capacity of 0.1 million barrels for proceeds of $1.1 million. In 2014, we divested our terminals in Mobile, AL, Wilmington, NC and Dumfries, VA and our 75% interest in our facility in Mersin, Turkey (the Turkey Sale). We recognized a gain of $3.7 million on the Turkey Sale for the year ended December 31, 2014. We presented the results of operations for these facilities as discontinued operations.

2014 Asphalt Sale

On February 26, 2014, we sold our remaining 50% ownership interest in NuStar Asphalt LLC to Lindsay Goldberg LLC, a private investment firm (the 2014 Asphalt Sale). Effective February 27, 2014, NuStar Asphalt LLC changed its name to Axeon Specialty Products LLC (Axeon). As a result of the 2014 Asphalt Sale, we ceased applying the equity method of accounting. Therefore, the results of our investment in Axeon were reported in "Equity in earnings of joint ventures" in the consolidated statements of income through February 25, 2014. Upon completion of the 2014 Asphalt Sale, the parties agreed to: (i) convert the $250.0 million unsecured revolving credit facility provided by us to Axeon into a $190.0 million term loan (the Axeon Term Loan); (ii) terminate the terminal services agreements with respect to our terminals in Rosario, NM, Catoosa, OK and Houston, TX; (iii) amend the terminal services agreements for our terminals in Baltimore, MD and Jacksonville, FL; and (iv) transfer ownership of both the Wilmington, NC and Dumfries, VA terminals to Axeon. We ceased reporting transactions between us and Axeon as related party transactions in our consolidated financial statements on February 26, 2014. See Note 8 for additional information on the Axeon Term Loan.

6. ALLOWANCE FOR DOUBTFUL ACCOUNTS

The changes in the allowance for doubtful accounts consisted of the following:

	Year Ended December 31,		
	2016	2015	2014
	(Thousands of Dollars)		
Balance as of beginning of year	$8,473	$7,808	$1,224
Increase in allowance, net	24	965	7,649
Accounts charged against the allowance	(741)	(300)	(1,065)
Balance as of end of year	$7,756	$8,473	$7,808

7. INVENTORIES

Inventories consisted of the following:

	December 31,	
	2016	2015
	(Thousands of Dollars)	
Crude oil and refined petroleum products	$ 28,044	$ 30,154
Materials and supplies	9,901	8,595
Total	$ 37,945	$ 38,749

We purchase crude oil and refined petroleum products for resale. Our refined petroleum products consist of intermediates, gasoline, distillates and other petroleum products. Materials and supplies mainly consist of blending and additive chemicals and maintenance materials used in our pipeline and storage segments.

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8. OTHER CURRENT ASSETS

Other current assets consisted of the following:

	December 31,	
	2016	2015
	(Thousands of Dollars)	
Axeon Term Loan	$ 110,000	$ —
Prepaid expenses	14,894	16,331
Derivative assets	155	11,402
Other	7,637	3,443
Other current assets	$ 132,686	$ 31,176

Axeon Term Loan. In December 2016, Lindsay Goldberg LLC informed us that they entered into an agreement to sell Axeon's retail asphalt sales and distribution business (the Axeon Sale), and we entered into an agreement with Axeon (the Axeon Letter Agreement) to settle and terminate the Axeon Term Loan with a $110.0 million payment to us upon closing of the Axeon Sale. As a result of the Axeon Letter Agreement and our review of Axeon's financial statements, we determined it was probable that we would not receive all contractual amounts due under the Axeon Term Loan. Therefore, we recorded a charge of $58.7 million, included in "Other (expense) income, net" in the consolidated statements of income, to reduce the carrying amount of the Axeon Term Loan to $110.0 million and reclassified the Axeon Term Loan from "Other long-term assets, net" to "Other current assets" on the consolidated balance sheet as of December 31, 2016. The Axeon Sale closed on February 22, 2017. In conjunction with the closing, we received the $110.0 million payment in accordance with the Axeon Letter Agreement, the Axeon Term Loan terminated and we are no longer required to provide ongoing credit support to Axeon. We were not obligated to perform under any of the guarantees or letters of credit provided prior to the closing of the Axeon Sale. We are in the process of terminating certain guarantees that we previously issued on Axeon's behalf that remain outstanding after the Axeon Sale, but these guarantees are supported by a letter of credit provided to us in an amount equal to those remaining guarantees, thereby reducing our exposure to zero. In addition, in connection with the closing of the Axeon Sale, the terminal storage agreements that Axeon has with our Jacksonville, Florida and Baltimore, Maryland terminal facilities were amended to increase the storage fees.

The recently terminated Axeon Term Loan included scheduled repayments in 2014 and 2015, which were subject to Axeon meeting certain restrictive requirements contained in its third-party asset-based revolving credit facility. In 2015 and 2014, those requirements prohibited Axeon from making the two scheduled principal payments, which, under the provisions of the Axeon Term Loan, increased the interest rate payable by Axeon. The Axeon Term Loan was scheduled to be repaid no later than September 28, 2019. Prior to the closing of the Axeon Sale, we reviewed the financial information of Axeon monthly for possible credit loss indicators. We recognized interest income associated with the Axeon Term Loan ratably over the term of the loan in "Interest expense, net" on the consolidated statements of income.

Under our agreements with Axeon, we also provided credit support, such as guarantees, letters of credit and cash collateral, as applicable, of up to $125.0 million to Axeon. As of December 31, 2016, we had provided guarantees for Axeon with an aggregate maximum potential exposure of $54.1 million, plus one guarantee to suppliers that did not specify a maximum amount. As of December 31, 2016, we had also provided $16.7 million in letters of credit on behalf of Axeon. Please refer to Note 16 for a discussion of the guarantees.

As of December 31, 2015, the carrying amount of the Axeon Term Loan was $170.4 million, consisting of the following: (i) the outstanding principal amount from the Axeon Term Loan of $190.0 million; (ii) plus the fair value of guarantees of $1.7 million; (iii) less equity losses from our investment in Axeon of $21.3 million incurred prior to the 2014 sale of our remaining ownership interest in Axeon and after the carrying value of our equity investment in Axeon was reduced to zero. The carrying value of the Axeon Term Loan as of December 31, 2015 was included in "Other long-term assets, net" on the consolidated balance sheet.

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9. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment, at cost, consisted of the following:

	Estimated Useful Lives (Years)	December 31, 2016	December 31, 2015
		(Thousands of Dollars)	
Land	-	$ 138,224	$ 140,292
Land and leasehold improvements	5 - 40	187,930	186,848
Buildings	15 - 40	144,773	137,269
Pipelines, storage and terminals	20 - 40	4,647,718	4,399,378
Rights-of-way	20 - 40	202,311	194,055
Construction in progress	-	114,322	151,318
Total		5,435,278	5,209,160
Less accumulated depreciation and amortization		(1,712,995)	(1,525,589)
Property, plant and equipment, net		$ 3,722,283	$ 3,683,571

Capitalized interest costs added to property, plant and equipment totaled $3.4 million, $5.5 million and $5.7 million for the years ended December 31, 2016, 2015 and 2014, respectively. Depreciation and amortization expense for property, plant and equipment totaled $200.7 million, $192.3 million and $177.3 million for the years ended December 31, 2016, 2015 and 2014, respectively, which includes depreciation expense included in “Income (loss) from discontinued operations, net of tax” on the consolidated statements of income.

10. INTANGIBLE ASSETS AND OTHER LONG-TERM ASSETS

Intangible Assets

Intangible assets are recorded at cost and are amortized on a straight-line basis over 10 to 47 years. Intangible assets consisted of the following:

	December 31, 2016		December 31, 2015	
	Cost	Accumulated Amortization	Cost	Accumulated Amortization
	(Thousands of Dollars)			
Customer relationships	$ 166,950	$ (41,582)	$ 196,616	$ (86,370)
Other	2,359	(644)	2,359	(594)
Total	$ 169,309	$ (42,226)	$ 198,975	$ (86,964)

All of our intangible assets are subject to amortization. Amortization expense for intangible assets was $13.9 million, $16.7 million and $12.6 million for the years ended December 31, 2016, 2015 and 2014, respectively. The estimated aggregate amortization expense is $16.7 million for each of the years 2017 through 2021.

Other Long-Term Assets, Net

Other long-term assets, net consisted of the following:

	December 31, 2016	December 31, 2015
	(Thousands of Dollars)	
Axeon Term Loan (a)	$ —	$ 170,352
Amount remaining in trust for the GoZone Bonds (a)	42,359	54,822
Ammonia pipeline linefill and tank heel inventory	34,377	35,178
Other	28,572	36,245
Other long-term assets, net	$ 105,308	$ 296,597

(a) See Note 8 for discussion on the Axeon Term Loan and Note 13 for discussion of the GoZone Bonds.

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11. GOODWILL

Changes in the carrying amount of goodwill by segment were as follows:

	Pipeline	Storage	Fuels Marketing	Total
	(Thousands of Dollars)			
Balances as of January 1, 2015:				
Goodwill	$306,207	$612,012	$53,255	$971,474
Accumulated impairment losses	—	(331,913)	(22,132)	(354,045)
Net goodwill	306,207	280,099	31,123	617,429
Activity for the year ended December 31, 2015:				
Linden Acquisition final purchase price allocation	—	79,208	—	79,208
Balances as of December 31, 2015 and 2016:				
Goodwill	306,207	691,220	53,255	1,050,682
Accumulated impairment losses	—	(331,913)	(22,132)	(354,045)
Net goodwill	$306,207	$359,307	$31,123	$696,637

12. ACCRUED LIABILITIES

Accrued liabilities consisted of the following:

	December 31,	
	2016	2015
	(Thousands of Dollars)	
Derivative liabilities	$ 5,052	$ 121
Employee wages and benefit costs	30,807	31,143
Unearned income	14,355	14,290
Other	10,271	9,640
Accrued liabilities	$ 60,485	$ 55,194

13. DEBT

Long-term debt consisted of the following:

		December 31,	
	Maturity	2016	2015
		(Thousands of Dollars)	
Revolving Credit Agreement	2019	$838,992	$882,664
4.75% senior notes	2022	250,000	250,000
6.75% senior notes	2021	300,000	300,000
4.80% senior notes	2020	450,000	450,000
7.65% senior notes	2018	350,000	350,000
7.625% subordinated notes	2043	402,500	402,500
GoZone Bonds	2038 thru 2041	365,440	365,440
Receivables Financing Agreement	2018	58,400	53,500
Net fair value adjustments, unamortized discounts and unamortized debt issuance costs	N/A	(968)	1,508

Total long-term debt	$3,014,364	$3,055,612

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The long-term debt repayments are due as follows (in thousands):

2017	$—
2018	408,400
2019	838,992
2020	450,000
2021	300,000
Thereafter	1,017,940
Total repayments	3,015,332
Net fair value adjustments, unamortized discounts and unamortized debt issuance costs	(968)
Total long-term debt	$3,014,364

Interest payments totaled $146.1 million, $138.9 million and $135.0 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Revolving Credit Agreement

NuStar Logistics is party to a $1.5 billion five-year revolving credit agreement (the Revolving Credit Agreement), which matures on October 29, 2019. The Revolving Credit Agreement includes an option allowing NuStar Logistics to request an aggregate increase in the commitments from the lenders of up to $250.0 million (after which increase the aggregate commitment from all lenders shall not exceed $1.75 billion). The Revolving Credit Agreement also includes the ability to borrow up to the equivalent of $250.0 million in Euros and up to the equivalent of $250.0 million in British Pounds Sterling. Obligations under the Revolving Credit Agreement are guaranteed by NuStar Energy and NuPOP.

The Revolving Credit Agreement bears interest, at our option, based on an alternative base rate, a LIBOR-based rate or a EURIBOR-based rate. The interest rate on the Revolving Credit Agreement is subject to adjustment if our debt rating is downgraded (or upgraded) by certain credit rating agencies. As of December 31, 2016, our weighted-average interest rate was 2.5%. During the year ended December 31, 2016, the weighted-average interest rate related to borrowings under the Revolving Credit Agreement was 2.3%.

The Revolving Credit Agreement contains customary restrictive covenants, such as limitations on indebtedness, liens, mergers, asset transfers and certain investing activities. In addition, the Revolving Credit Agreement requires us to maintain, as of the end of each rolling period of four consecutive fiscal quarters, a consolidated debt coverage ratio (consolidated debt to consolidated EBITDA, each as defined in the Revolving Credit Agreement) not to exceed 5.00-to-1.00. If we consummate an acquisition for an aggregate net consideration of at least $50.0 million, the maximum consolidated debt coverage ratio will increase to 5.50-to-1.00 for two rolling periods. As of December 31, 2016, our consolidated debt coverage ratio could not exceed 5.50-to-1.00, as a result of the Martin Terminal Acquisition in December 2016. The requirement not to exceed a maximum consolidated debt coverage ratio may limit the amount we can borrow under the Revolving Credit Agreement to an amount less than the total amount available for borrowing. As of December 31, 2016, we had $645.2 million available for borrowing.

Letters of credit issued under the Revolving Credit Agreement totaled $15.8 million as of December 31, 2016. Letters of credit are limited to $750.0 million (including up to the equivalent of $25.0 million in Euros and up to the equivalent of $25.0 million in British Pounds Sterling) and also may restrict the amount we can borrow under the Revolving Credit Agreement.

Notes

NuStar Logistics Senior Notes. Interest is payable semi-annually in arrears for the $250.0 million of 4.75%