



Barclays Midstream Corporate Access Days

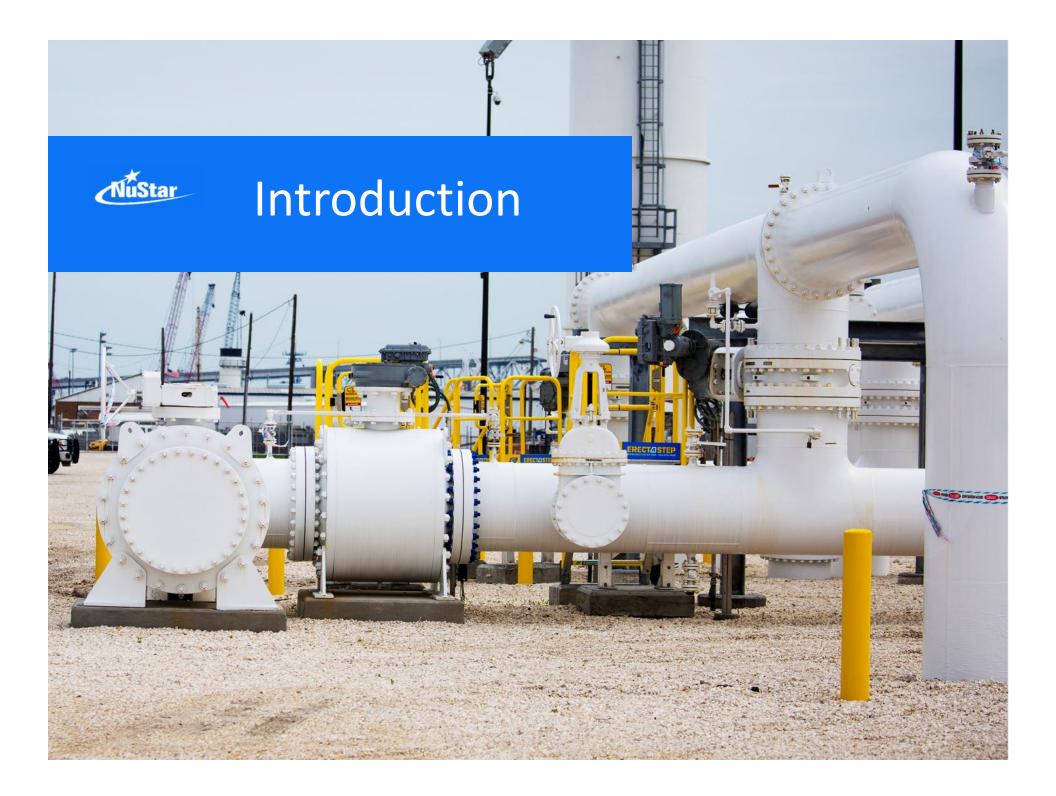
March 5-6, 2019

Forward-Looking Statements



Statements contained in this presentation other than statements of historical fact are forward-looking statements. 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 likely vary, sometimes materially, from any estimates, predictions, projections, assumptions or other future performance presented or suggested in this presentation. These forward-looking statements can generally be identified by the words "anticipates," "believes," "expects," "plans," "intends," "estimates," "forecasts," "budgets," "projects," "could," "should," "may" and similar expressions. These statements reflect our current views with regard to future events and are subject to various risks, uncertainties and assumptions.

We undertake no duty to update any forward-looking statement to conform the statement to actual results or changes in the company's expectations. For more information concerning factors that could cause actual results to differ from those expressed or forecasted, see NuStar Energy L.P.'s annual report on Form 10-K and quarterly reports on Form 10-Q, filed with the SEC and available on NuStar's website at www.nustarenergy.com. We use financial measures in this presentation that are not calculated in accordance with generally accepted accounting principles ("non-GAAP") and our reconciliations of non-GAAP financial measures to GAAP financial measures are located in the appendix to this presentation. These non-GAAP financial measures should not be considered an alternative to GAAP financial measures.



Last Year, NuStar Completed Its Stepped Plan to Achieve the Characteristics Demanded by the MLP Sector





	IPO Date: 4/16/2001
NuStar Energy L.P.	Common Unit Price (3/1/19):\$26.13Annualized Distribution/Common Unit:\$2.40Yield (3/1/19):9.2%Market Capitalization:\$2.8 billion
	Enterprise Value: \$7.2 billion Credit Ratings Moody's: Ba2/Negative
NYSE: NS	S&P: BB/Negative Fitch: BB/Negative

In 2018, We Met, or Surpassed, All of Our Goals



We surpassed our year-end coverage target

We lowered our leverage to our three-year target in a single year

We executed on our 2018 strategic capital program, efficiently and effectively

We developed a number of new projects for future growth, building on both our Permian and legacy assets

We operated safely and efficiently, and we again achieved some of the best HSE statistics in the industry

With Our High-Quality Assets, NuStar is Now Poised to Execute on Permian-Driven Growth Opportunities and to Continue Optimizing Our Legacy Assets



Current Profile

- □ Total Enterprise Value: ~\$7B
- Total Assets:
- □ Total Pipeline Miles: ~9,800
- □ Total Storage Capacity: ~88MMbbls

~\$7B

- □ Volumes Handled⁽¹⁾:
 - ➤ 1.5 MMBPD pipeline volumes
 - 355 MBPD storage throughput terminal volumes

NuStar has:

- Highly integrated U.S. pipeline & terminal systems
- Significant crude oil footprint in the Midland Basin of the Permian
- □ First-class Gulf Coast export facilities
- Minimal direct exposure to commodity prices



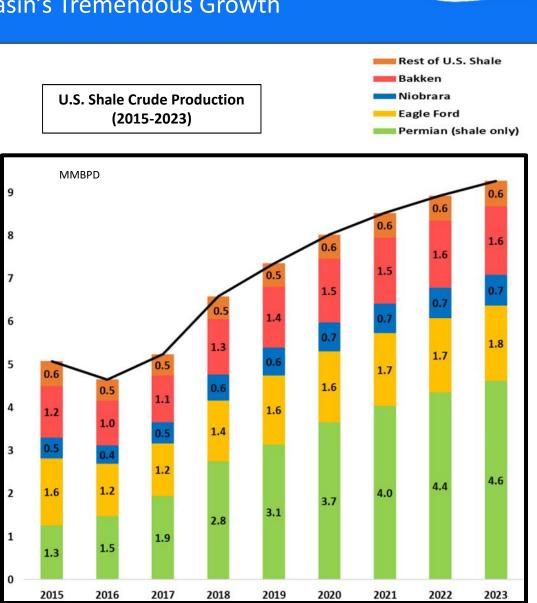


The Permian Basin: Phenomenal Growth Driving Midstream Opportunities



The U.S. is Now the Global Leader in Crude Production, Thanks in Large Part to the Permian Basin's Tremendous Growth

- U.S. total crude production grew to 11.0 MMBPD in 2018, exceeding Russia and Saudi Arabia
- U.S. shale production growth is expected to continue to ramp up, due almost entirely to the strength of production in the Permian
- The Permian Basin's growth and growth expectations are unprecedented:
 - Expected to be a record 4.2
 MMBPD by year end 2019, over 30% of the nation's total shale output
 - Projected to exceed 4.7 MMBPD by end of 2020 and to surge to 8.0 to 10.0 MMBPD by 2030



Source: EIA, Rystad Energy

lúStar

A Massive Oil Basin of Epic Proportions...

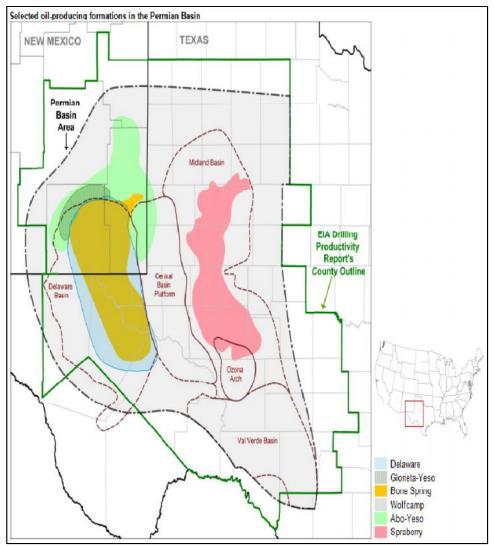


If the Permian Basin were a country, it would rank #7 among the world's top liquids producers

- A pool of more recoverable oil than any field in the world except for Saudi Arabia's Ghawar
- 250 miles wide, 300 miles long (75,000 square miles)
- The Wolfcamp Formation alone is estimated to hold 20 billion barrels of oil

The world's hottest oil basin

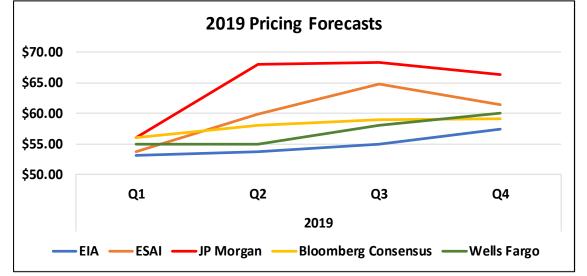
- Several majors and many E&P firms have shifted resources away from other plays to focus on the Permian
 - Even with oil in a \$50 price environment, analysts see no immediate challenges to well economics and expect Permian investments to continue to provide double-digit returns in 2019
- Currently accounts for 55% of nation's active oil rigs

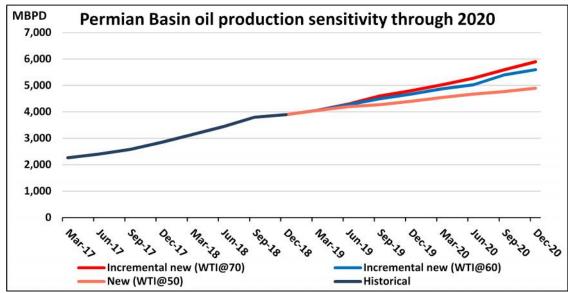


Even at \$50 WTI, the Permian is Expected to Continue to Grow, in 2019 and Beyond



- Forecasted oil prices for the rest of 2019 remain above, and in some cases, well above, current prices
- According to industry experts, the resilience and efficiency of the Permian continues to produce healthy growth even at \$50 WTI





Source: Bloomberg (2/28/2019), EIA (2/12/2019), ESAI (1/31/2019), JP Morgan (2/25/2019), Wells Fargo (2/6/2019); and Rystad Energy's "Shale Trends Report- November 2018"

Producers Remain Bullish on Permian Growth, Strength & Resiliency





"We increased production 36% year-over-year driven by a 41% increase in oil volume."

"The average rate of return of this premium resource is 68% and we have 40 years of runway at our current pace. **Our capital program in 2019 is directed to these locations**."



"Production in the fourth quarter was 377,000 barrels per day, up 172,000 barrels per day or 84% relative to the same quarter last year. Annual production was up more than 70%."

"In just two years, we've doubled our rig count, increased our resource base, decreased unit development and operating costs and more than doubled our production."



"Moving to 2019, we trimmed our capital budget versus previously described expectations in December and **we** still expect to grow production 27% year-over-year..."



"We delivered an ROCE for the year of about 9%. That's significantly up from the 4% level that we had in 2017. That's clearly a sign of high-return wells high-return margins that eventually hit the bottom line."

"During the fourth quarter, we transported about 175,000 barrels a day to the Gulf Coast about -- of which about 80% of those barrels were exported internationally, with 60% of those barrels going to Europe and 40% to Asia."



"Production in the Permian increased another 12% relative to the third quarter and was **up 93% from the fourth quarter of last year**."

"In the Permian, we continue to expand and accelerate activities."

The Permian's Track Record, Along With Its Projected Growth, is Driving Midstream Growth Opportunities, In the Basin and Beyond



- With statistics like the Permian's, it's no surprise the Basin is the genesis for the majority of, as well as the strongest, growth opportunities for midstream MLPs
- NuStar's focus is on two out of three major Permian growth areas that fit our capital program requirements and strategic plan:

Intra-basin opportunities

 Gathering, storing and transporting Permian barrels to regional hubs

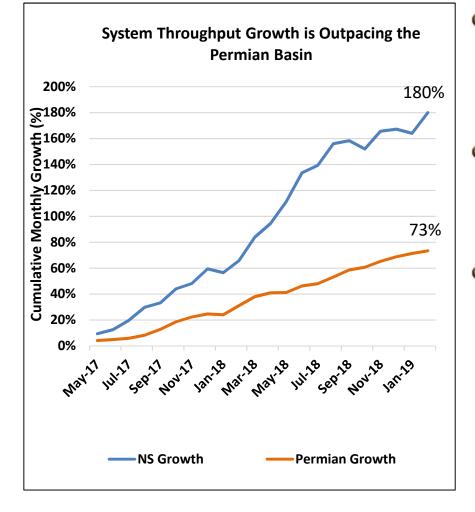
Long-haul opportunities

• Transporting Permian barrels to larger market hubs with new-build lines and expansions

Export opportunities

- Exporting Permian barrels from Gulf Coast export facilities
- Beyond these major opportunity areas, the Permian's growth has also created some significant "spillover" opportunities for NuStar





* See Appendix for detailed map of the system

Our system spans five of the six most active counties in the prolific Midland Basin*

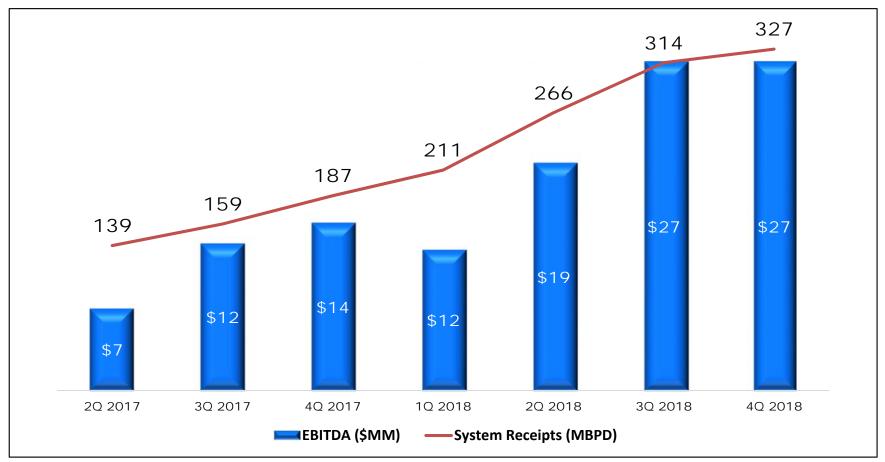
- Over 500,000 dedicated across
- □ 5MM acres of Areas of Mutual Interest, or AMI
- Our system provides our customers with excellent access to multiple downstream end markets
 - Delivery points and flow assurance into Big Spring, Midland and Colorado City
- We have expanded our system to keep pace with our producers' growth
 - ~825 miles of pipeline with 1MMbbls of storage capacity
 - ~200 well connection sites (almost doubled since the May 2017 acquisition) – we plan to connect an additional ~50 connections this year
 - □ Current capacity of 460MBPD, with 100MBPD expansion planned in 1H 2019

Source: EIA Drilling Productivity Report

INTRA-BASIN OPPORTUNITIES: Our Permian System's Receipts and EBITDA Are Growing Rapidly



We expect to achieve throughput of 450MBPD by year-end 2019



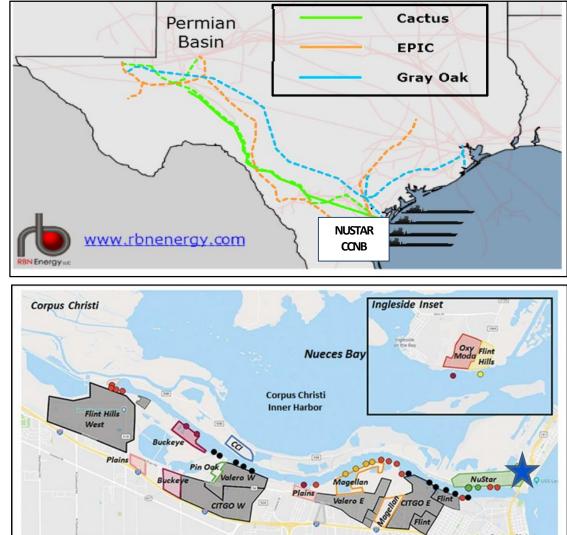
Source: EIA Drilling Productivity Report

1 - Please see Appendix for reconciliations of non-GAAP financial measures to their most directly comparable GAAP measures

<u>EXPORT OPPORTUNITIES</u>: Long-Haul Pipelines Will Bring an Additional 2.0MMBPD Capacity to Corpus Christi...



- By mid-2020, Cactus II, Gray Oak and EPIC are scheduled to bring an additional 2.0MMBPD capacity to Corpus Christi
- The Port of Corpus Christi offers:
 - a cost-effective alternative to Houston's congestion
 - The deepest draft on the Texas coast, even in advance of scheduled Port dredging projects
- As these new long-haul pipelines commence interim service and ramp up to full service, Permian producers will have the capacity out of the basin to increase production at a more rapid rate



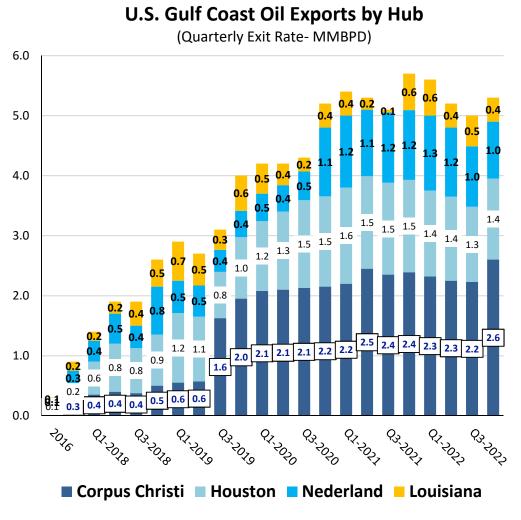
Refineries: Gray outlines represent refineries and black circles represent refinery docks; Terminals: Outlines in color represent terminals. Red circles represent Port docks, and other circles represent private docks

Source: Rystad Energy, Wells Fargo, Baker & O'Brien

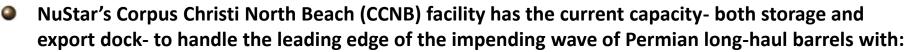
EXPORT OPPORTUNITIES: ... And Those Incremental Permian Barrels Are Expected to be Exported From the Port of Corpus Christi



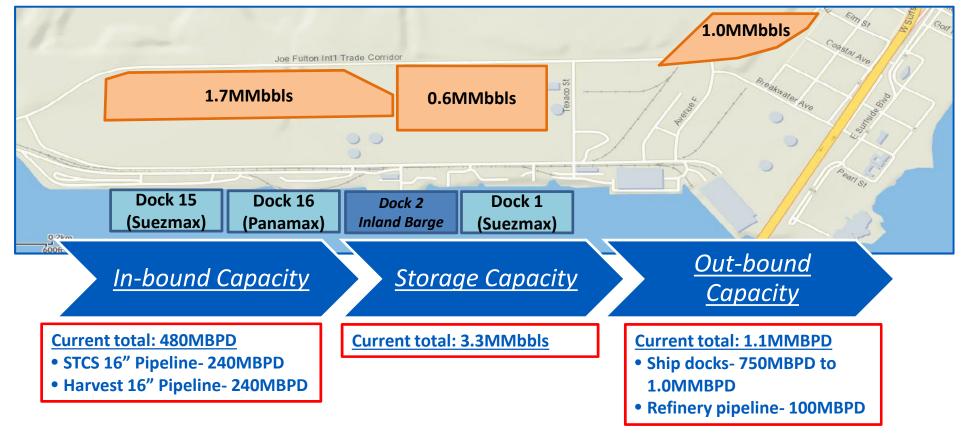
- While the Gulf Coast is home to 45% of U.S. refining capacity, regional refiners' appetite for light, sweet crude is already largely satiated, unless refiners prioritize investments in upgrades
- Because of this regional supply/demand imbalance, most analysts expect incremental Permian crude production growth will be exported out of the region to supply refineries elsewhere in the U.S. and around the globe
- In 2018, Corpus Christi represented 21% of annual average total Gulf Coast exports of approximately 2.0MMBPD, but by year-end 2019, its share will increase to 37% of annual average total Gulf Coast oil exports of approximately 3.2MMBPD



EXPORT OPPORTUNITIES: Our Corpus Christi Dock Facility Positions NuStar as a "First Mover" for the "Last Mile" for Permian Long-Haul Barrels...



- □ 3.3MMbbls of segregated crude storage capacity (Expandable to ~4.3MMbbls)
- □ Four docks with a combined 100Mbbls per hour loading capacity
- Located at entrance to Port, which saves customers an estimated four to six hours over competing facilities
- Ability to accommodate Suezmax vessels



<u>EXPORT OPPORTUNITIES</u>: ...And Our Project for Trafigura Utilizes Our Existing Assets While Expanding Our Ability to Meet Growing Export Demand



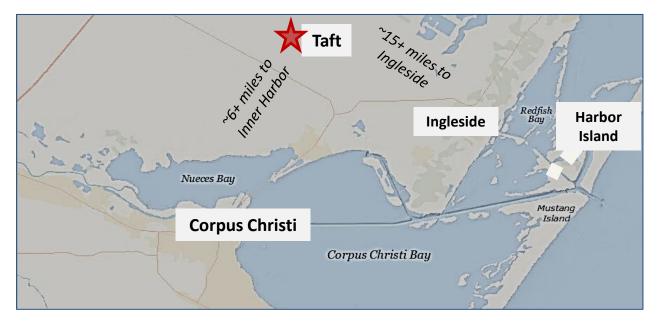
- Trafigura's four-year commitment to transport and store WTI on our South Texas System and our CCNB facility will support near- and longer-term projects:
 - Starting as soon as summer 2019, we are connecting PAA's Cactus II pipeline to our South Texas system to transport WTI on our 16" existing pipeline from Taft to our CCNB facility
 - Construction, scheduled for in-service by year-end 2019:
 - A new 30" pipeline from Taft to our CCNB facility 3Q19
 - 600Mbbls of storage at CCNB, bringing our capacity at the facility to 3.9MMbbls (of which Trafigura will lease 1.6MMbbls) – 4Q19
- We expect project spending to total approximately \$100MM generating a multiple in the 2– 4X range
- We are in discussions to connect to other long-haul pipeline projects and with parties for additional commitments
- We are exploring a connection to the Harbor Island crude oil export facility with VLCC-loading capabilities



<u>EXPORT OPPORTUNITIES</u>: Our Connection Facility in Taft Will Establish Our Footprint in Taft, Texas, the Emerging South Texas Crude Oil Hub



The Permian long-haul pipeline projects were developed to maximize shippers' destination optionality, and Taft, Texas offers both geographic flexibility and less expensive real estate

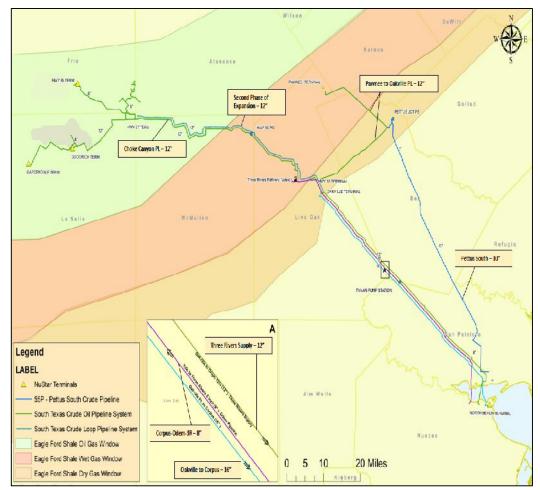


- Taft's location offers a jumping off point for connections on either side of the Corpus Christi Ship Channel (Ingleside or the Inner Harbor)
- As the point of convergence for all three of the Permian-to-Corpus Christi long-haul pipelines and with developing access to multiple marine and refinery outlets, Taft is poised to become the major crude oil market hub in South Texas)
- Our connection to Cactus II in Taft not only enables our services for Trafigura; it also positions NuStar to build on our early entry into this developing hub

<u>"SPILLOVER" OPPORTUNITIES</u>: Beyond Its Role in Our Corpus Export Project, Our South Texas Crude System Benefits From the Inland WTI Price Differentials, Along With the System's Contracted Eagle Ford T&D Volumes



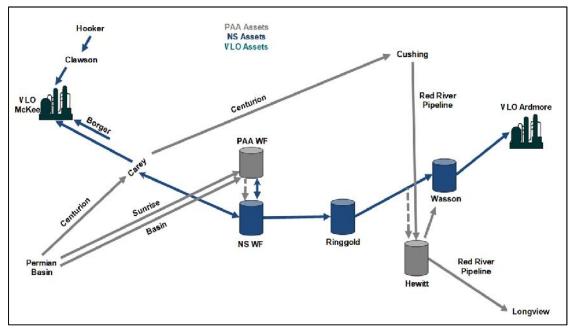
- Last year, differentials widened on market concerns that the basin's 2019 production trajectory will drive a near-term shortfall in long-haul takeaway capacity
 - Shippers looked to find ways to benefit from the price dislocation, and we saw volume increases from this dislocation
 - Through February, our system benefited from incremental barrels trucked from the Permian
- We now have T&D contracts for ~116MBPD on a system with 240MBPD capacity
 - Last year, we renewed commitments for ~50MBPD with customers on our South Texas System



<u>"SPILLOVER" OPPORTUNITIES</u>: We Are Supplying Permian Barrels to the Ardmore and McKee Refineries from Plains' Sunrise II Pipeline



- In 2018, we provided our customer with optionality to supply the Ardmore and McKee refineries with Permian barrels from Plains' Sunrise II expansion
 - □ Service to Ardmore Expect ~85MBPD (similar volumes with higher tariff)
 - □ Service to McKee Expect ~110MBPD (similar volumes and tariff)
- We entered into an agreement with a customer to construct an additional connection to our Wichita Falls terminal to support increased volumes and move Permian barrels to both Ardmore and McKee refineries and third-party pipelines
- We have signed a long-term commitment to ship barrels between Wichita Falls, TX and Hewitt, OK to support deliveries



- □ New service to Hewitt Expect 55-65MBPD starting in May 2019 (incremental volume and tariff)
- □ The projects help us serve our customers' needs and benefit from longer-haul tariff and incremental barrels

<u>"SPILLOVER" plus EXPORT OPPORTUNITIES</u>: Our St. James Terminal is Benefiting From Price Dislocations Now and is Positioned to Participate in Export Growth in the Future

- We have executed contracts for unit train offloading driven by widening differentials out of the Permian, Western Canada and Bakken (expect five to 10 trains per month)
- We are also working to facilitate exports of barrels delivered via our existing and planned pipeline connections
 - Capline's reversal would have potential to bring large volumes of Permian light barrels, along with heavy Canadian and Bakken crude, for use in regional refineries and export to other locations
 - Bayou Bridge will bring Permian light barrels, along with Bakken and heavy Canadian crude, either for export or local use
- St. James is a large facility with room for expansion and three marine berths to capitalize on exports
 - Export capabilities currently support lightloaded Suezmax vessels



St. James Terminal:

- Three marine docks: ~75M barrels per hour (inbound)
- 9.9MMbbls of crude oil storage
- Two unit train facilities
- ~25M barrels per hour (outbound)

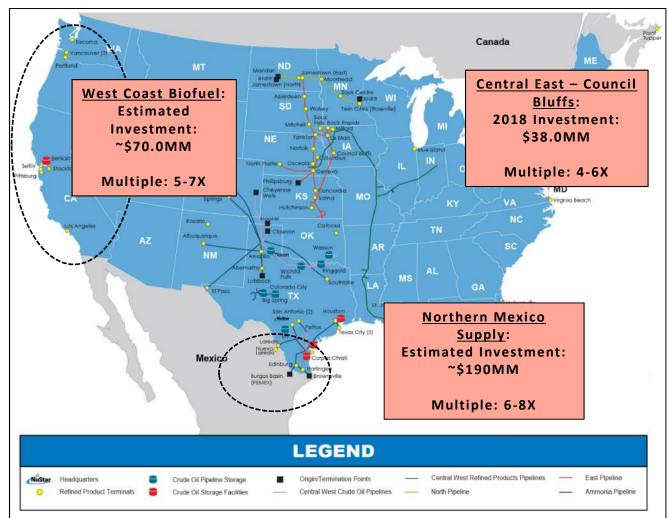


We Are Also Optimizing Our Mature Systems to Profit From Evolving Market Demand



We continue to identify 'microdislocations' on our mature systems, and augment underutilized assets with projects and bolt-on acquisitions





Our Projects to Facilitate Export of Refined Products to Supply Northern Mexico Are Progressing on Schedule



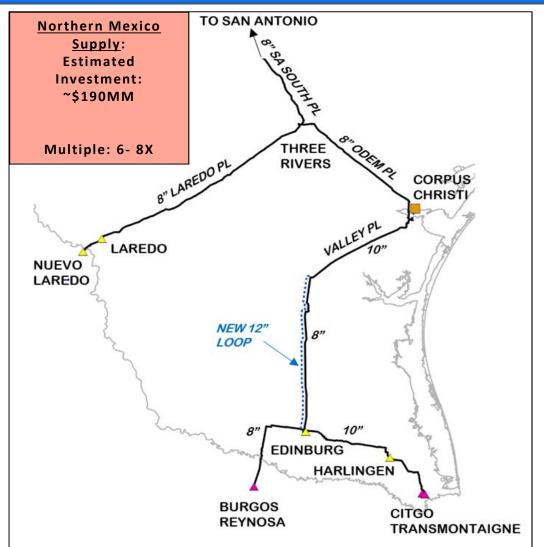
Several years ago, we recognized the growing need for refined products to supply to Mexico

In response, we developed projects to fulfill that growing demand and expand use of underutilized assets in south Texas

Projects update:

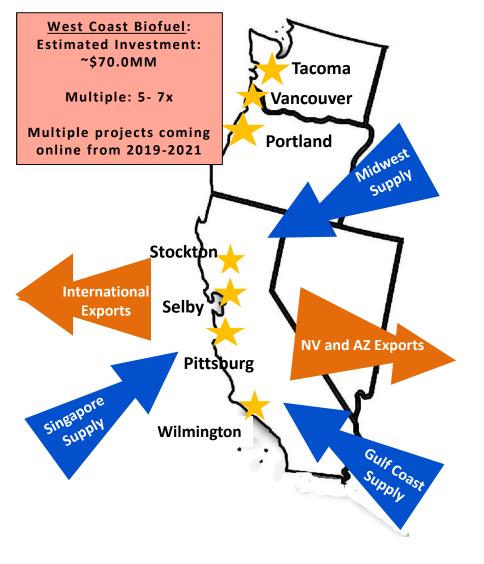
Nuevo Laredo Project for Valero

- Early ULSD service scheduled to start in Q2 2019
- Odem pipeline, Dos Laredos pipeline and Nuevo Laredo terminal expansion should be completed by February 2020
- Valley Pipeline Expansion for major customer
 - Receiving facility in Matamoros is expected to be in service in Q4 2019
 - NuStar's project is on schedule and expected to be in service in Q3 2019

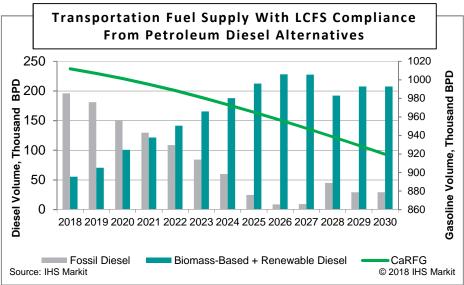


The West Coast's Aggressive Carbon Emissions Reduction Goals Have Catalyzed Market Dislocations That Our West Coast Assets Are Well-Positioned to Address





- Regulatory priorities on the West Coast are dramatically increasing demand for biofuels, which require import and storage, and are likely to drive exports of petroleum diesel in the future
- At the same time, obtaining permits for greenfield project in the region is difficult, which increases the value of existing assets
- Our terminal facilities have the access to rail, marine and truck-loading facilities necessary to receive biofuels from outside the region and to provide a base for distribution of biofuel products across the West Coast region

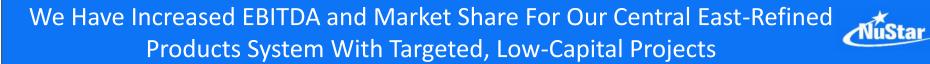


We Have Worked With Key Customers to Develop Low-Capital Renewable Fuels Storage Projects at Several of Our West Coast Facilities to Meet Regional LCFS Mandates

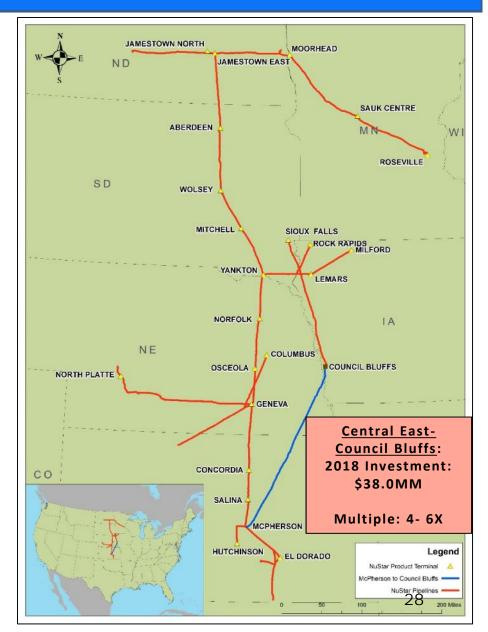


Through these projects, we are capturing market share, building important customer relationships and achieving higher storage rates than are attainable for non-LCFS products

			2019	2020	2021
Destland		Convert three tanks, 68,000 shell barrels, from fuel oil to ULSD and biodiesel service	1		
Portland	Renewable Diesel	Convert 7,000 shell barrels to renewable diesel service and 25,000 shell barrels to ULSD services	1		
Selby	Renewable Diesel	Construct new truck-loading bay to accommodate additional renewable diesel loading requirements	1		
		Convert 30,000 shell barrels to biodiesel service	1		
Stockton	Renewable Diesel	Convert 28,000 shell barrels to renewable diesel service and increase renewable diesel-capable rail sports from five to 15		1	
Stockton	Renewable Diesel	Convert 151,000 shell barrels to renewable diesel service		1	
	۴ŗ,	Provide pipeline connections to ethanol rail loading facility to receive 180-car unit trains		1	
Wilmington	Renewable Diesel	Convert 80,000 shell barrels from fuel oil to renewable diesel storage and reconfigure dock for enhanced marine capability			1



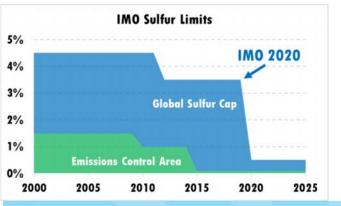
- In the past six years, we have been able to increase the system's EBITDA by over 60%, with limited capital spending
- We offer both significant pipeline connectivity and excellent customer service
 - The pipeline system and 22 supporting terminals serve multiple refining/co-op customers in PADD II
- Through our Council Bluffs acquisition last year, we have expanded our footprint, which has allowed us to expand both our leased storage and our menu of proprietary additive and blending services
- We plan to continue to broaden our services to meet our customers' needs and compete in the market with bio-diesel service, rail receipt and loading optionality

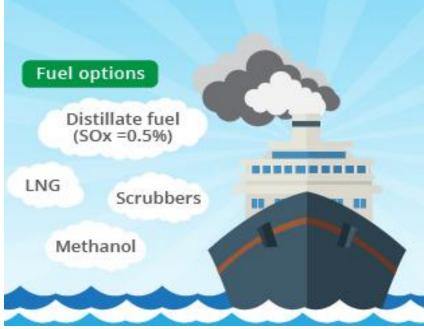


Potential Up-Side for Legacy Storage Assets From IMO 2020?



- While the full implications remain to be seen, IMO 2020 may present storage opportunities, through additional segregations, that we have not forecasted
- NuStar has strategically located storage assets in the Gulf Coast, East Coast and the Caribbean, some of which may have capacity available in the late 2019 and 2020 to capture IMO 2020-driven demand



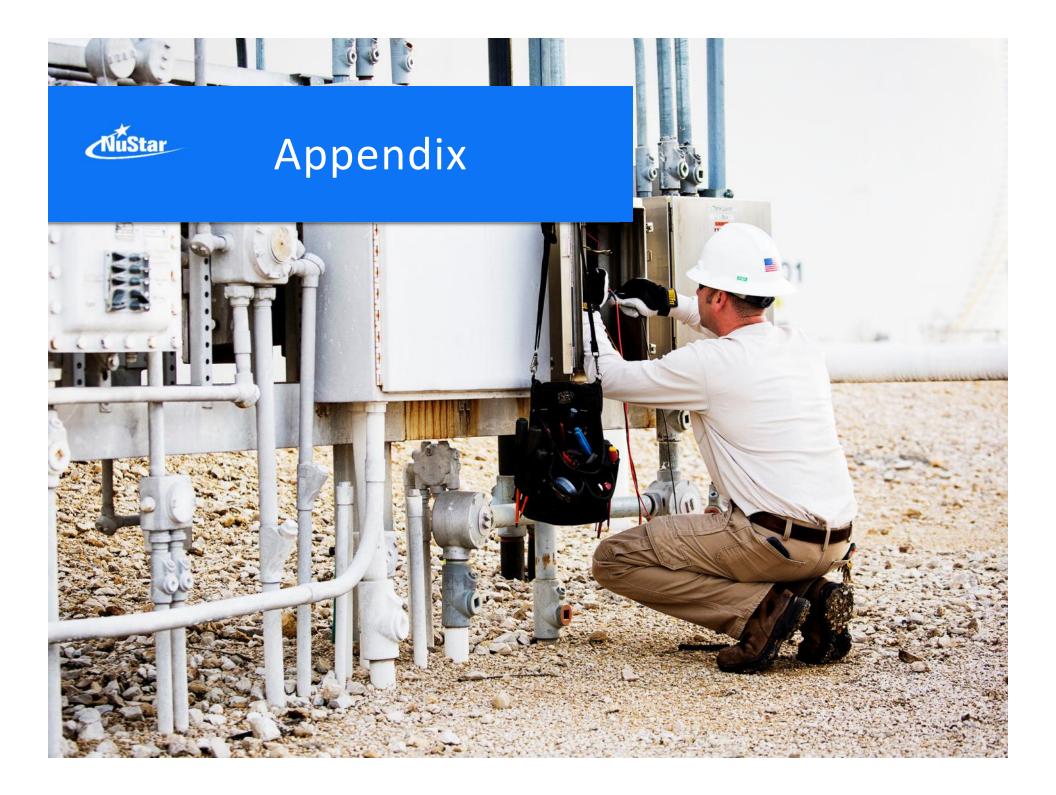




This Year, We Will Continue Building on Our Foundational Strengths to Ensure Strong, Stable Growth in the Future

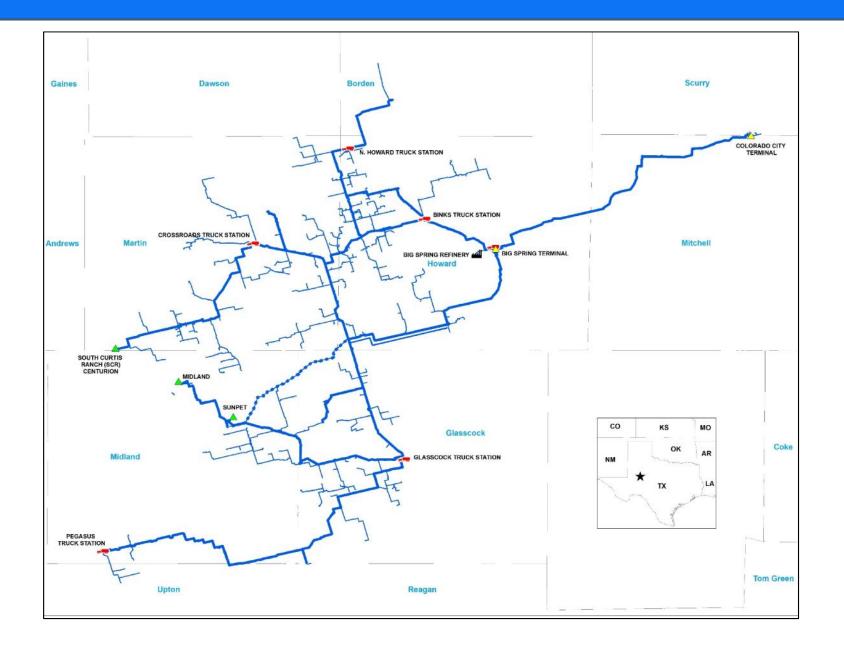


NuStar



Our Permian Crude System is "Core of the Core"



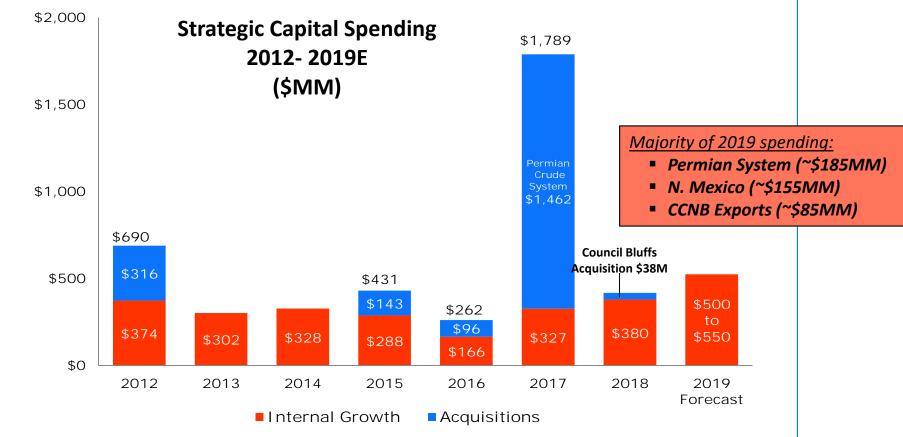


33

Our Work in 2018 Positioned NuStar For Growth; in 2019, We Are Focused on Disciplined Spending and Project Execution and Continuing to Improve Our Metrics

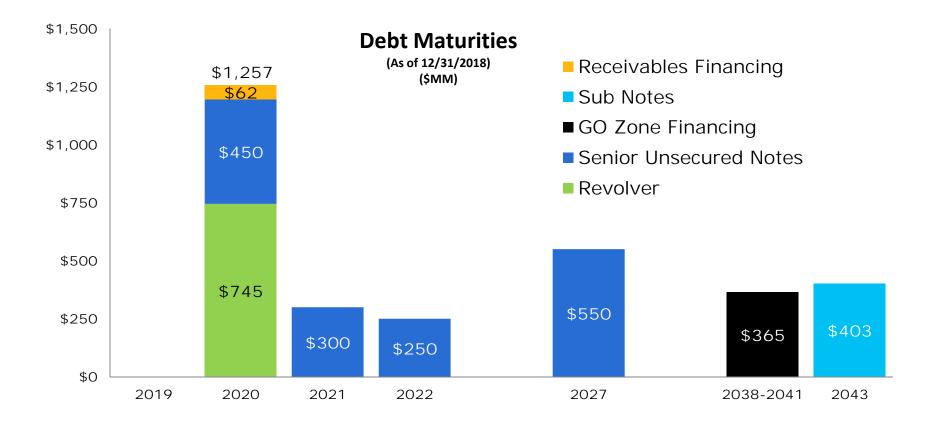


- We are carefully evaluating projects and managing costs to ensure two things:
 - 1. We maintain our financial strength and further lower our leverage
 - 2. We continue to grow our EBITDA with high-return projects



Post-2019, we expect to return to annual historic spending rate

We Have No Significant Debt Maturities Until 2020



- 0 We repaid our \$350MM 7.65% senior unsecured notes that matured in April 2018 with our revolver, but we plan to issue up to \$500MM new senior unsecured notes
- We applied the \$270MM of proceeds from our sale of the European assets in the fourth quarter of 2018 to 0 our revolver balance, which allows us to reduce leverage and redeploy capital to invest in low-multiple projects

NuStar_

Capital Structure as of December 31, 2018 (\$ in Millions)



\$1.75B Credit Facility	\$745
NuStar Logistics Notes (4.75%)	250
NuStar Logistics Notes (4.80%)	450
NuStar Logistics Notes (5.625%)	550
NuStar Logistics Notes (6.75%)	300
NuStar Logistics Sub Notes	403
GO Zone Bonds	365
Receivables Financing	62
Short-term Debt & Other	5
Total Debt	\$3,130

Series D Preferred Units	\$564
Series A, B and C Preferred Units	\$756
Common Equity and AOCI	<u>1,502</u>
Total Equity	2,822
Total Capitalization	<u>\$5,952</u>

As of December 31, 2018:

Credit facility availability ~\$650MM

Debt-to-EBITDA ratio¹ 4.05x

1 - Please see Appendix for reconciliations of non-GAAP financial measures to their most directly comparable GAAP measures

Reconciliation of Non-GAAP Financial Information



NuStar Energy L.P. utilizes financial measures, such as earnings before interest, taxes, depreciation and amortization (EBITDA), distributable cash flow (DCF) and distribution coverage ratio, which are not defined in U.S. generally accepted accounting principles (GAAP). Management believes these financial measures provide useful information to investors and other external users of our financial information because (i) they provide additional information about the operating performance of the partnership's assets and the cash the business is generating, (ii) investors and other external users of our financial statements benefit from having access to the same financial measures being utilized by management and our board of directors when making financial, operational, compensation and planning decisions and (iii) they highlight the impact of significant transactions.

Our board of directors and management use EBITDA and/or DCF when assessing the following: (i) the performance of our assets, (ii) the viability of potential projects, (iii) our ability to fund distributions, (iv) our ability to fund capital expenditures and (v) our ability to service debt. In addition, our board of directors uses a distribution coverage ratio, which is calculated based on DCF, as one of the factors in its compensation determinations. DCF is a widely accepted financial indicator used by the master limited partnership (MLP) investment community to compare partnership performance. DCF is used by the MLP investment community, in part, because the value of a partnership unit is partially based on its yield, and its yield is based on the cash distributions a partnership can pay its unitholders.

None of these financial measures are presented as an alternative to net income, or for any period presented reflecting discontinued operations, income from continuing operations. They should not be considered in isolation or as substitutes for a measure of performance prepared in accordance with GAAP. For purposes of segment reporting, we do not allocate general and administrative expenses to our reported operating segments because those expenses relate primarily to the overall management at the entity level. Therefore, EBITDA reflected in the segment reconciliations exclude any allocation of general and administrative expenses consistent with our policy for determining segmental operating income, the most directly comparable GAAP measure.

Reconciliation of Non-GAAP Financial Information (continued)



The following is a reconciliation of operating (loss) income to EBITDA for the Permian Crude System (in thousands of dollars):

			Three Months Ended												
-		June 30, 2017		September 30, 2017		December 31, 2017		March 31, 2018		June 30, 2018		September 30, 2018		December 31, 2018	
Operating (loss) income	\$	(3,424)	\$	1,050	\$	650	\$	(1,847)	\$	3,605	\$	11,546	\$	10,878	
Plus depreciation and amortization expense		10,227		11,005		13,165		13,477		15,059		15,235		16,589	
EBITDA	\$	6,803	\$	12,055	\$	13,815	\$	11,630	\$	18,664	\$	26,781	\$	27,467	

Reconciliation of Non-GAAP Financial Information (continued)



The following is the reconciliation for the calculation of our Consolidated Debt Coverage Ratio, as defined in our revolving credit agreement (the Revolving Credit Agreement) (in thousands of dollars, except ratio data):

	For the Four Quarters Ended December 31, 2018
Net income	\$ 205,794
Interest expense, net	186,237
Income tax expense	11,408
Depreciation and amortization expense	297,874
EBITDA	701,313
Other income (a)	(39,876)
Equity awards (b)	10,646
Pro forma effect of dispositions (c)	(20,458)
Material project adjustments and other items (d)	14,258
Consolidated EBITDA, as defined in the Revolving Credit Agreement	\$ 665,883
Total consolidated debt	\$ 3,143,240
NuStar Logistics' floating rate subordinated notes	(402,500)
Proceeds held in escrow associated with the Gulf Opportunity Zone Revenue Bonds	(41,476)
Consolidated Debt, as defined in the Revolving Credit Agreement	\$ 2,699,264

Consolidated Debt Coverage Ratio (Consolidated Debt to Consolidated EBITDA)

(a) Other income is excluded for purposes of calculating Consolidated EBITDA, as defined in the Revolving Credit Agreement.

(b) This adjustment represents the non-cash expense related to the vestings of equity-based awards with the issuance of our common units.

(c) This adjustment represents the pro forma effects of the sale of our European assets as if we had completed the sale on January 1, 2018.

(d) This adjustment represents the percentage of the projected Consolidated EBITDA attributable to any Material Project and other noncash items, as defined in the Revolving Credit Agreement.

4.05x