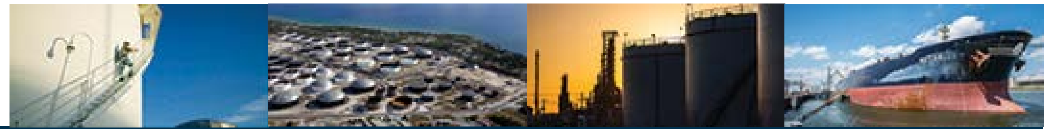
RBC Capital Markets Midstream Conference

Dallas, TX
November 13-14, 2018

BUCKEYE PARTNERS, L.P.

LEGAL NOTICE / FORWARD-LOOKING STATEMENTS



This presentation contains "forward-looking statements" that we believe to be reasonable as of the date of this presentation. These statements, which include any statement that does not relate strictly to historical facts, use terms such as "anticipate," "assume," "believe," "estimate," "expect," "forecast," "intend," "plan," "position," "potential," "predict," "project," or "strategy" or the negative connotation or other variations of such terms or other similar terminology. In particular, statements, expressed or implied, regarding future results of operations or ability to generate sales, income or cash flow, to make acquisitions, to complete divestitures, to achieve target coverage or leverage ratios or to make distributions to unitholders are forward-looking statements. These forward-looking statements are based on management's current plans, expectations, estimates, assumptions and beliefs concerning future events impacting Buckeye Partners, L.P. (the "Partnership", "Buckeye" or "BPL") and therefore involve a number of risks and uncertainties, many of which are beyond management's control. Although the Partnership believes that its expectations stated in this presentation are based on reasonable assumptions, actual results may differ materially from those expressed or implied in the forward-looking statements. The factors listed in the "Risk Factors" sections of, as well as any other cautionary language in, the Partnership's public filings with the Securities and Exchange Commission, provide examples of risks, uncertainties and events that may cause the Partnership's actual results to differ materially from the expectations it describes in its forward-looking statements. Each forward-looking statement speaks only as of the date of this presentation, and the Partnership undertakes no obligation to update or revise any forward-looking statement.

This presentation contains forward looking estimates of Adjusted EBITDA and cash flows related to the Asset Divestitures (as defined herein). We cannot provide a reconciliation of estimated Adjusted EBITDA or cash flows to estimated GAAP net income, which is the GAAP financial measure most directly comparable to each non-GAAP measure, without unreasonable efforts due to the inherent difficulty and impracticality of quantifying certain amounts that would be required to calculate projected GAAP net income, such as unrealized gains and losses on derivatives marked to market and potential changes in estimates for certain contingent liabilities. In addition, interest and debt expense are corporate-level expenses that are not allocated among Buckeye's individual assets and could not be allocated to the operations of the assets being divested without unreasonable effort. These amounts that would require unreasonable effort to quantify could be significant, such that the amount of projected GAAP net income would vary substantially from the amount of projected Adjusted EBITDA or cash flows.

ORGANIZATIONAL OVERVIEW

Buckeye owns and operates a diversified network of integrated assets providing midstream logistic solutions, and is committed to achieving a strong balance sheet, solid investment grade credit rating and financial flexibility to fund attractive growth opportunities without accessing public equity

Domestic Pipelines & Terminals(1)

One of the largest independent liquid petroleum products pipeline and terminal operators with assets located primarily in the Northeast, Midwest and Southeast United States

- ~6,000 miles of pipeline with ~105 delivery locations
- ~110 active liquid petroleum product terminals
- ~56 million barrels of liquid petroleum product tank capacity

Global Marine Terminals(1)

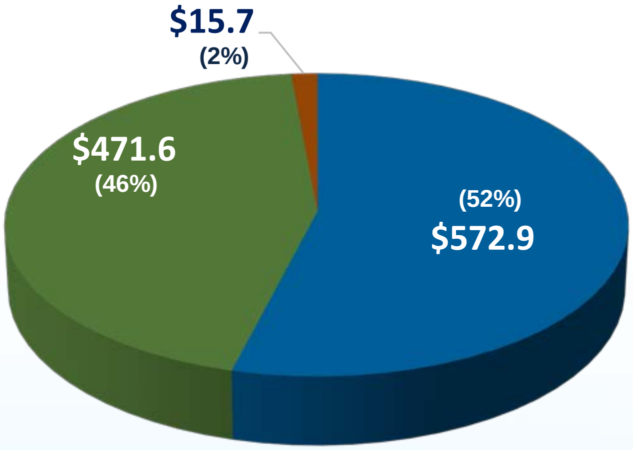
One of the largest networks of marine terminals located primarily in the East Coast and Gulf Coast regions of the United States as well as in the Caribbean

- 7 liquid petroleum product terminals located in key global energy hubs
- ~62 million barrels of liquid petroleum product storage capacity

Merchant Services

Markets liquid petroleum products in certain areas served by Domestic Pipelines & Terminals and Global Marine Terminals

LTM Adjusted EBITDA(2) - $1.1 billion

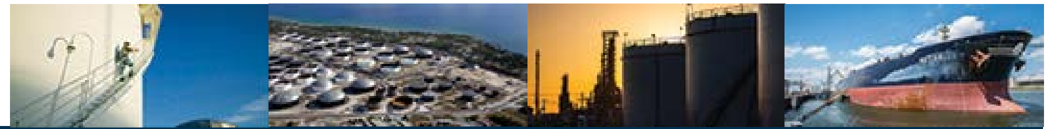


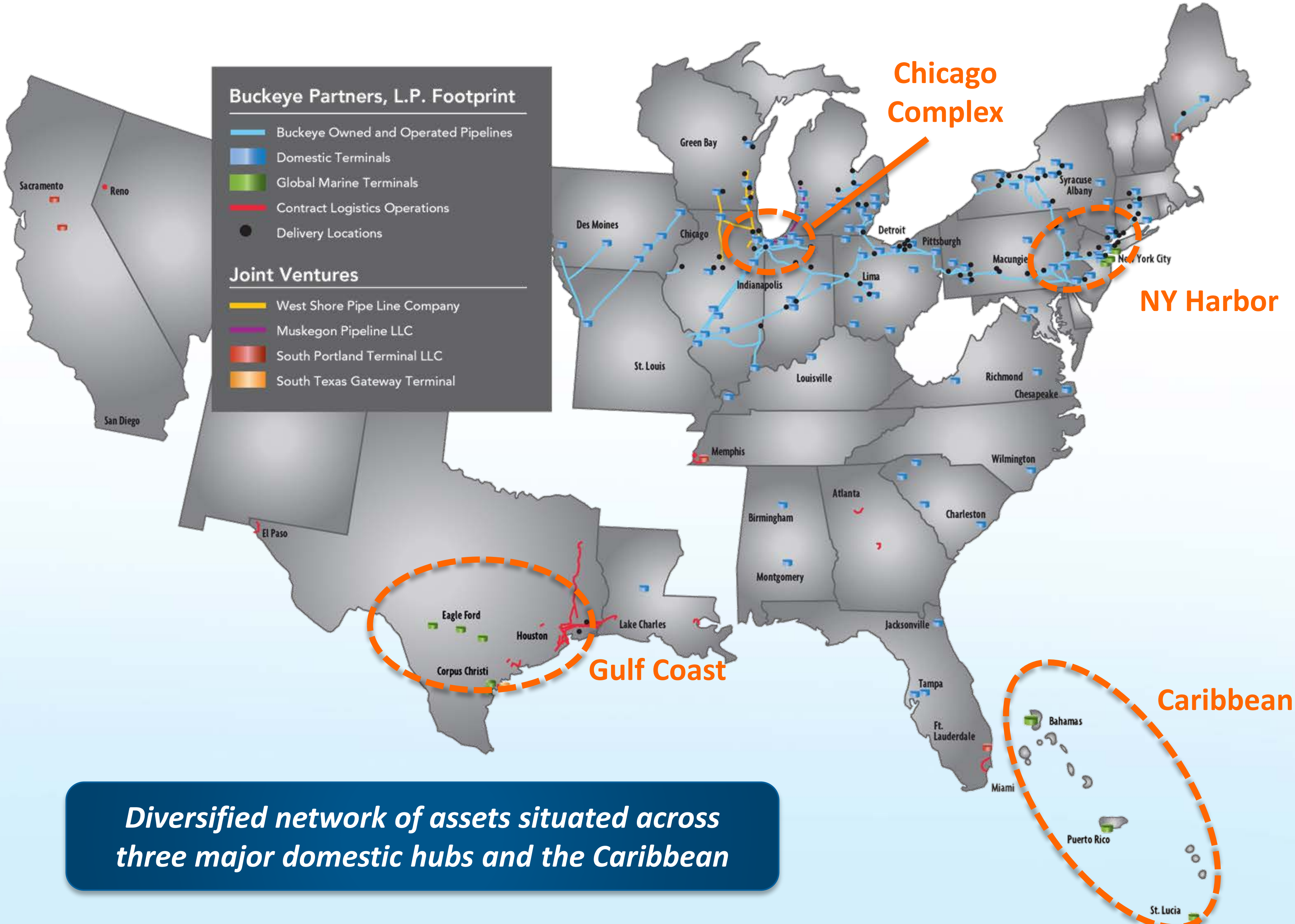
Market and Financial Highlights

Market Data(3)	
Unit Price	$32.41
Market Capitalization	$5 billion
Yield	9.3%
Financial Data(2)	
Adjusted EBITDA	$1.1 billion
Distribution per Unit (Annualized)	$3.00
Distribution Coverage Ratio - Q3 2018	1.35x

(1) Excludes the sale of non-integrated domestic pipeline and terminal assets as well as the equity interest in VTTI B.V. ("Asset Divestitures"), which are expected to close in the fourth quarter of 2018.
(2) Includes contribution from the Asset Divestitures. Last twelve months through September 30, 2018 presented in millions. See Non-GAAP Reconciliations at end of presentation.
(3) As of November 9, 2018.

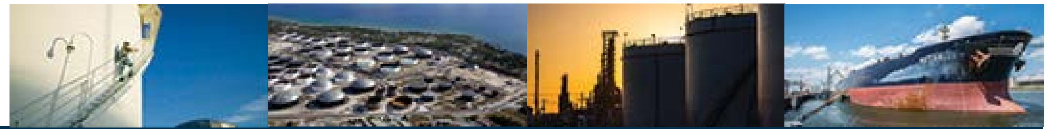
SYSTEM MAP





Diversified network of assets situated across three major domestic hubs and the Caribbean

STRATEGIC REVIEW



On November 2, 2018, Buckeye announced the outcome of its strategic review

Situation Analysis

- Increased need for capital based on attractive investment opportunities
- Dislocated public equity markets
- Equity markets have not rewarded Buckeye for:
  - Level of distribution being paid
  - Significant level of cash flows being generated and expected to grow in the future
- Near-term weakness in segregated storage

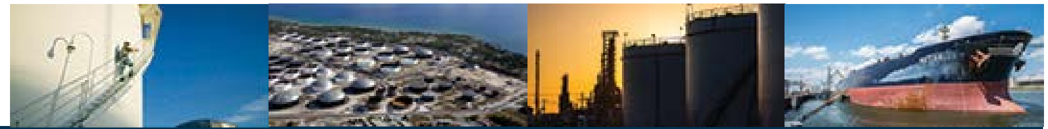
Timing influenced by significant increases in attractive growth capital investments
Expect to spend over $600 million of growth capital in 2018

Objectives

- Maintain investment grade credit rating
- Provide increased financial flexibility, eliminating the need to access the public equity markets
- Reallocate capital to higher return growth opportunities

Reposition Buckeye to maximize long-term unitholder value

STRATEGIC REVIEW



Actions and Benefits

Sale of Entire Equity Interest in VTTI B.V. for $975 Million

Represents multiple > 12x expected 2019 cash flows

- Given scarcity of reasonably priced capital, sale allows Buckeye to allocate available capital to higher return domestic growth initiatives
- Buckeye avoids any future VTTI capital investment requirements (estimated to be in excess of $100 million annually)
- Eliminates Buckeye share of VTTI debt of approximately $500 million

Sale of Non-integrated Pipeline and Terminal Assets for $450 Million

Represents multiple of 13x expected 2019 Adjusted EBITDA

- Raise significant capital at attractive multiple for non-integrated assets
- Expect to operate these assets for buyer under long-term contract
  - No ownership risk going forward
  - No impact to Buckeye personnel

Multiples realized are believed to be more representative of the intrinsic value of Buckeye's asset portfolio

Quarterly Cash Distribution Adjustment to $0.75 per unit (equates to $3.00 per year)

- Buckeye expected to retain nearly $300 million of cash flow
- Fund growth capital without need to access public equity markets
- Significantly improve distribution coverage

Actions expected to solidify investment grade credit rating, improve distribution coverage and eliminate the need to access public equity

DOMESTIC PIPELINES & TERMINALS

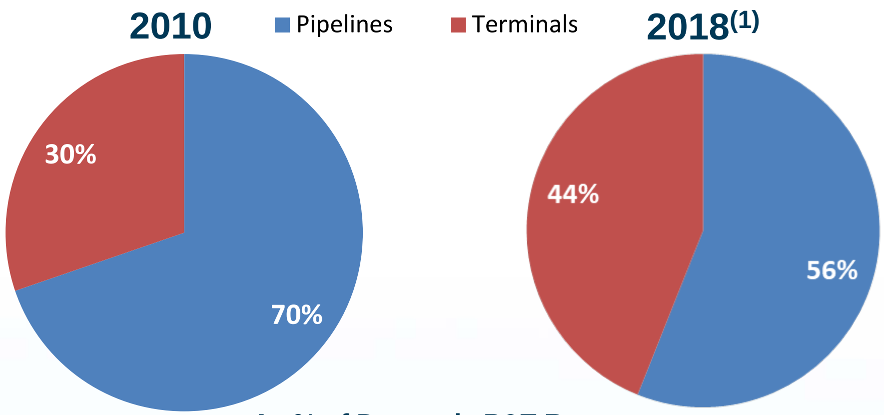
Recent Highlights

- Substantial growth in pipeline revenue primarily due to increased throughput volumes resulting from stronger demand as well as higher average pipeline tariffs
- Significant increase in terminal throughput volumes driven by incremental market share as well as enhanced service offerings from growth capital investments
- Strength was offset by the expiration of the crude-by-rail contract in Q1 2018 and two product releases during Q3 2018
  - Aggregate impact in excess of $12 million

Outlook

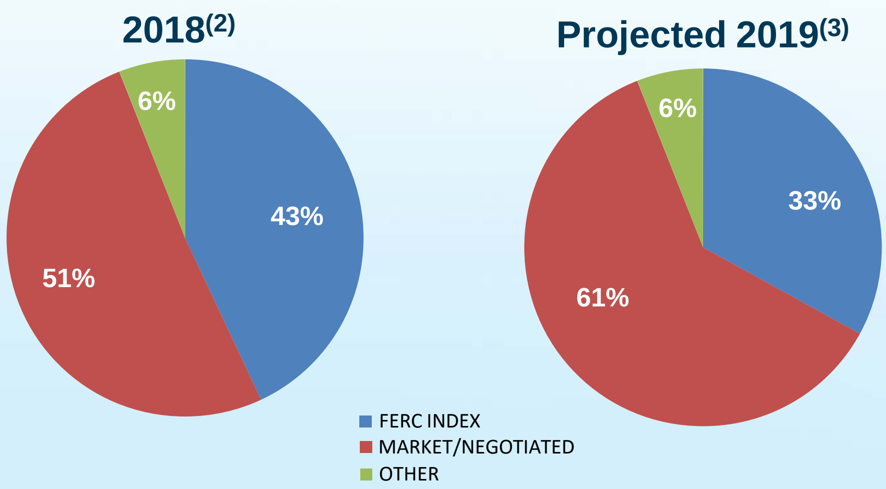
- Expect tariff increases on market-based and FERC index-based tariff pipelines to drive pipeline throughput revenue growth
- Terminal throughput revenue growth expected to be driven by completion of growth capital initiatives and expansion of market share
- Forecast continued growth through investments in capital projects and expanded service offerings
  - Continuing to advance on a number of projects with attractive return profiles across our portfolio of assets
    - Both Michigan/Ohio Expansion Phase II and Chicago Complex Expansion to be in service by mid-2019

Significant growth capital investment opportunities across our terminal assets



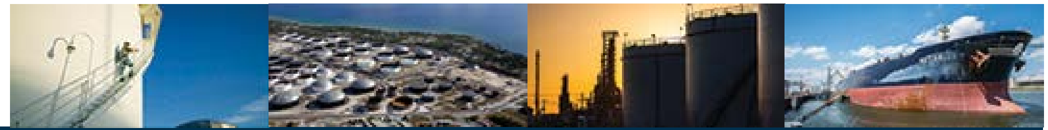
As % of Domestic P&T Revenue

BPL Pipeline Tariff Mix



(1) For the nine months ended September 30, 2018.
(2) Reflects expected tariff mix through October 2018.
(3) Reflects expected tariff mix for 2019.

GLOBAL MARINE TERMINALS



Recent Highlights

- Continued strong operating performance at Buckeye Texas Partners
  - Achieved record crude processing volumes
  - Full quarter contribution from the acquisition of the remaining 20% minority interest in April 2018
- Lower capacity utilization and rates as a result of challenging segregated storage market conditions, particularly in the Caribbean
  - Reported average capacity utilization(1) of 78% for Q3 2018 compared to 89% for Q3 2017

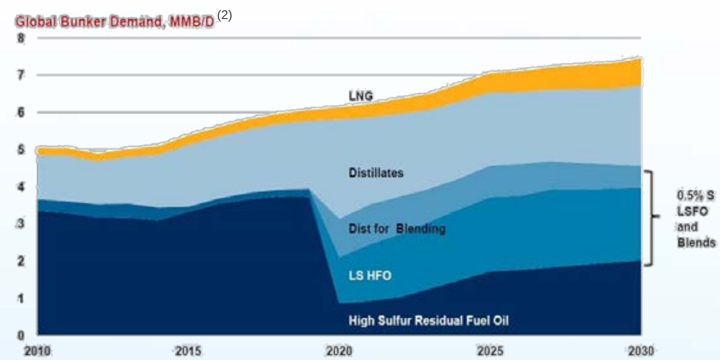
Outlook

- Anticipate South Texas Gateway Terminal to commence operations by end of 2019
- Expect restart of New York Harbor crude by rail in Q2 2019, exporting heavy Canadian crude supported by long-term contract
- Increasing throughput capabilities for LPG products across Buckeye Texas docks
- Exploring additional connectivity to other crude oil pipelines from the Permian and Eagle Ford to support throughput expansion opportunities
- Buckeye's assets are well-positioned to capture value from key emerging trends in the second half of 2019 and into 2020
  - Market conditions are anticipated to remain somewhat challenged for segregated storage through the first half of 2019

Key Emerging Trends

IMO 2020

- IMO change to marine bunker sulfur specification effective January 1, 2020 set to increase demand for high sulfur fuel oil storage with switch to low sulfur and distillates
- Fuel oil contango expected to emerge in late 2019
- Demand for distillate storage also expected to increase
- Increased need for segregated storage for blending
- Expect uplift in splitter economics based on improved crack margin for lighter barrels

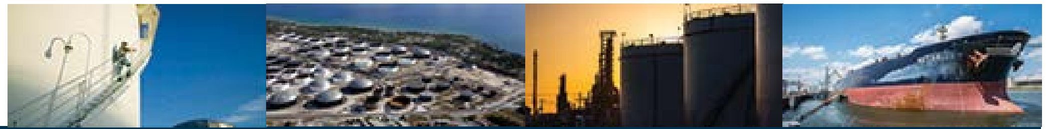


Growing U.S. Production

- Growing light oil production from shale play creates mismatch with local refining demand
- Improves forward light oil splitter economics and need for midstream infrastructure
- Growing incentive for U.S. exports to compete for global market share
- Buckeye Texas Partners and South Texas Gateway Terminal are uniquely positioned to capitalize on incremental production

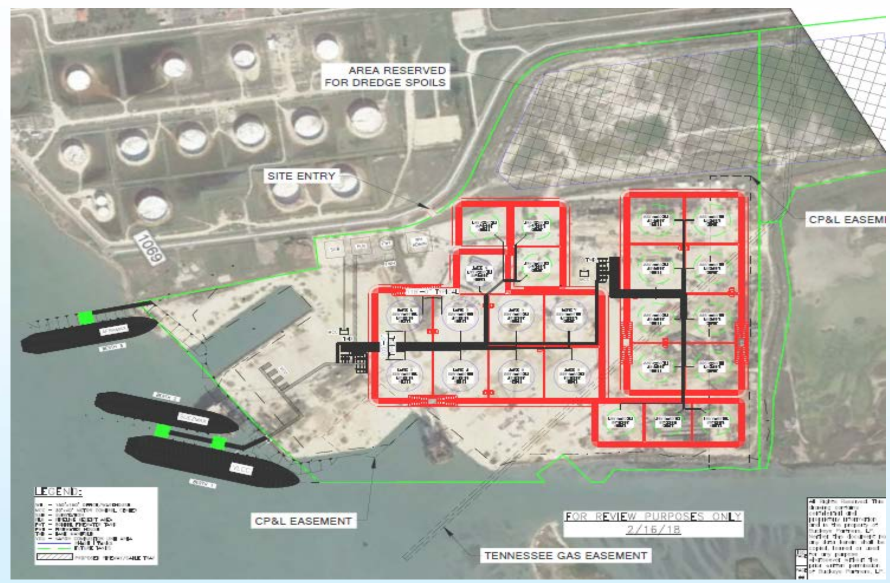
(1) Represents the ratio of contracted capacity to capacity available to be contracted.
(2) Sourced from Platts.

GROWTH CAPITAL PROJECTS
ADVANCING LAST-MILE SOLUTIONS



- Buckeye formed a joint venture with Phillips 66 Partners LP and Andeavor to develop the South Texas Gateway Terminal, which is positioned to serve as the primary outlet for crude oil and condensate volumes delivered from the Gray Oak pipeline
  - Construction of over 5 million barrels of crude oil tank capacity and 2 deepwater vessel docks capable of handling Suezmax and VLCC tankers
  - Potential for expansion of up to 10 million barrels of tank capacity
  - Continuing to secure incremental throughput volume commitments from additional customers
    - Permitted for throughput of up to 800,000 bpd
  - Assessing opportunities for increased pipeline connectivity
- BTP and South Texas Gateway Terminal are expected to provide premier connectivity to both Permian and Eagle Ford production growth
  - Connections to both of the major Permian takeaway pipelines that have been announced in Plains' Cactus I and II (BTP) and Gray Oak (South Texas Gateway Terminal)
  - Unique combination of open-access (South Texas Gateway) and proprietary assets (BTP) provides the ability to service all of the leading market participants
  - Positions Buckeye to capture a leading market share of volume growth and asset expansion in Corpus Christi
- Continuing to optimize infrastructure at BTP facilities to improve efficiency and increase the scale of operations
  - Added incremental crude oil storage capacity at Buckeye Texas Hub to facilitate more pipeline deliveries
  - Assessing opportunity to expand the processing capabilities of condensate splitters by up to 30,000 bpd
  - Potential to expand LPG handling and export capabilities through further development of the existing facilities at Buckeye Texas Hub or through the construction of a new greenfield facility, which would serve as a new aggregation and distribution center for LPG and crude volumes

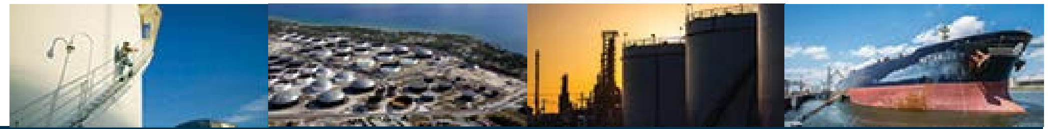
Premier Advantaged Positions in Corpus Christi



South Texas Gateway Terminal Layout

Buckeye is well-positioned to capitalize on incremental Permian Basin production as customers seek the most economic export solution

GROWTH CAPITAL PROJECTS
MAJOR PROJECTS



Chicago Complex Expansion

- $80 million expansion project backed by a long-term agreement with BP Products North America, Inc., with approximately 600,000 additional barrels of product blending tankage and the build-out of an existing truck rack
- Enhances liquidity of the Chicago Complex and further solidifies our position as the premier storage and trading facility in the area
- Expected completion in mid-2019
    - Project is ahead of schedule and all necessary permits have been obtained
- Expect this expansion to be the first phase of additional growth, as the Midwestern refining industry is materially cost-advantaged to certain of its competitors in other parts of the country and poised for continued growth and investment

Buckeye Chicago Complex Expansion

Michigan/Ohio Expansion – Phase Two

- Extends Midwest supplies from Pittsburgh to Central Pennsylvania using Buckeye's Laurel Pipeline
- Provides bi-directional service between Pittsburgh and Altoona in response to shipper desire for optionality to supply from Midwest or East coast
- Adds approximately 40,000 barrels per day of new capacity from Midwest while maintaining historic volume capacity from the east
- Backed by 10-year shipper commitments
- Anticipate a decision from FERC on the proposed service that will allow service to begin in early 2019

Michigan/Ohio Expansion Benefits

- Driven by the clear long-term trend of increasing availability of lower-cost North American crudes
- For over a decade, Midwest refiners have been increasing production of lower-cost fuels made from these advantaged crudes
- Provides safe and reliable pipeline option for Midwestern refiners to move these fuels eastward to meet consumer demand
- Increases Pennsylvania consumers' access to lower-cost domestically produced fuels, decreasing dependence on more costly imports

GROWTH CAPITAL PROJECTS

Smaller Organic Growth Projects

Consistently average $75 million to $125 million annual spend

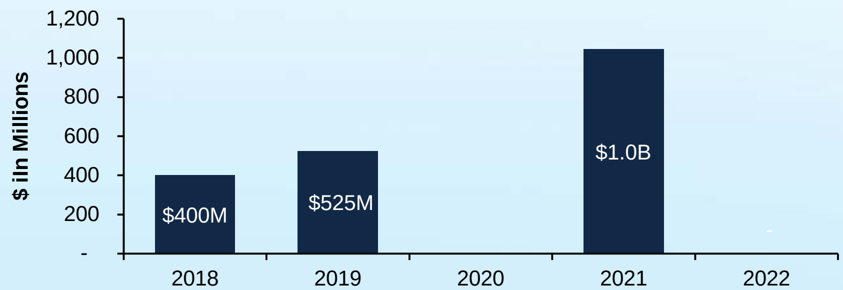
- Expansion of Jacksonville, FL terminal to increase throughput capacity and provide ethanol and butane by rail capabilities
- Building out gasoline and ULSD railcar loading capabilities at our Woodhaven, MI terminal
- Expanding connectivity and building a butane rail facility within our Tampa, FL terminal facility
- Expanding and creating an integrated Pittsburgh Complex between our Pittsburgh, Coraopolis and Indianola terminal
- Reconfiguring the Albany, NY terminal to support a refined products rail and truck rack business
- Butane blending services and onshore storage at Buckeye Bahamas Hub
- Converted approximately 2 million barrels of capacity to handle a wider spectrum of products at Buckeye Bahamas Hub
- Projects to further capability to handle specialty crude products in the Caribbean

Our strategy is focused on maintaining and growing Buckeye's core business to offer the highest potential returns for unitholders

Growth Capital Funding

- Moving toward a "self-funding" business model in order to strengthen balance sheet, solidify investment grade rating and improve distribution coverage
- Well-positioned to fund planned growth capital without accessing the public equity markets
- 2018 growth capital spend ~$625-670 million
  - Includes planned contribution of $45-60 million to fund capital expenditures at the South Texas Gateway joint venture
  - Includes the recent acquisition of the remaining 20% equity interest in BTP
- Anticipate annual growth capital spend of ~$250-350 million prospectively
- Available liquidity on revolver(1) ~$924 million

Debt Maturities Over Next 5 Years



(1) As of September 30, 2018.

INVESTMENT SUMMARY

Diverse portfolio of assets with strong balance sheet, solid investment grade rating and financial flexibility, poised to take advantage of strategic growth opportunities

- Predominantly fee-based cash flows from our transportation, terminal throughput, storage and processing activities
- Significant geographic and product diversity, broader product service capabilities and significant near-term growth projects
- Premier Corpus Christi assets well-positioned to capitalize on growing U.S. exports of crude oil from Gulf Coast
- No GP IDRs and C Corp governance
- Committed to maintaining an investment grade credit rating
- Anticipate $1.4 billion of asset divestitures to be completed by year end
- Valuations realized believed to be more representative of intrinsic value of Buckeye
- Targeted financial metrics:
  - Leverage less than 4.5x
  - Distribution coverage greater than 1.2x
- Empowered, commercially focused and team-oriented employees accountable and incentivized to deliver results

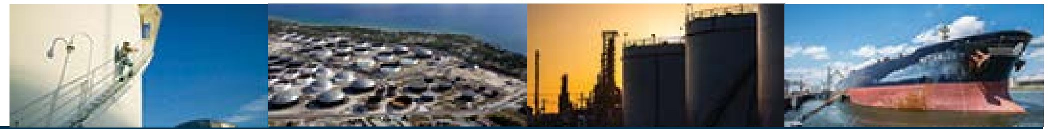
Buckeye Bayonne Terminal

Buckeye Texas Partners condensate splitters

NON-GAAP RECONCILIATIONS

BUCKEYE PARTNERS, L.P.

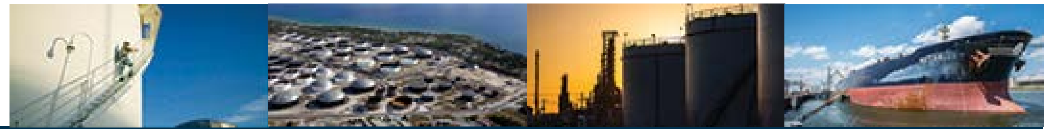
NON-GAAP FINANCIAL MEASURES



Adjusted EBITDA and distributable cash flow are measures not defined by accounting principles generally accepted in the United States of America ("GAAP"). We define Adjusted EBITDA as earnings before interest expense, income taxes, depreciation and amortization, further adjusted to exclude certain non-cash items, such as non-cash compensation expense; transaction, transition, and integration costs associated with acquisitions; certain gains and losses on foreign currency transactions and foreign currency derivative financial instruments, as applicable; and certain other operating expense or income items, reflected in net income, that we do not believe are indicative of our core operating performance results and business outlook, such as hurricane-related costs, gains and losses on property damage recoveries, and gains and losses on asset sales. We define distributable cash flow as Adjusted EBITDA less cash interest expense, cash income tax expense, and maintenance capital expenditures, that are incurred to maintain the operating, safety, and/or earnings capacity of our existing assets, plus or minus realized gains or losses on certain foreign currency derivative financial instruments, as applicable. These definitions of Adjusted EBITDA and distributable cash flow are also applied to our proportionate share in the Adjusted EBITDA and distributable cash flow of significant equity method investments, such as that in VTTI, B.V. ("VTTI"), and are not applied to our less significant equity method investments. The calculation of our proportionate share of the reconciling items used to derive these VTTI performance metrics is based upon our 50% equity interest in VTTI, prior to adjustments related to noncontrolling interests in several of its subsidiaries and partnerships, which are immaterial. These adjustments include gains and losses on foreign currency derivative financial instruments used to hedge VTTI's United States dollar denominated distributions which are excluded from Adjusted EBITDA and included in distributable cash flow when realized. Adjusted EBITDA and distributable cash flow are non-GAAP financial measures that are used by our senior management, including our Chief Executive Officer, to assess the operating performance of our business and optimize resource allocation. We use Adjusted EBITDA as a primary measure to: (i) evaluate our consolidated operating performance and the operating performance of our business segments; (ii) allocate resources and capital to business segments; (iii) evaluate the viability of proposed projects; and (iv) determine overall rates of return on alternative investment opportunities. We use distributable cash flow as a performance metric to compare cash-generating performance of Buckeye from period to period and to compare the cash-generating performance for specific periods to the cash distributions (if any) that are expected to be paid to our unitholders. Distributable cash flow is not intended to be a liquidity measure.

Buckeye believes that investors benefit from having access to the same financial measures used by senior management and that these measures are useful to investors because they aid in comparing Buckeye's operating performance with that of other companies with similar operations. The Adjusted EBITDA and distributable cash flow data presented by Buckeye may not be comparable to similarly titled measures at other companies because these items may be defined differently by other companies. Please see the attached reconciliations of each of Adjusted EBITDA and distributable cash flow to net income.

NON-GAAP RECONCILIATIONS[1]
In millions, except ratios



	3Q18	LTM[2]
Adjusted EBITDA [3] ***:***		
Domestic Pipelines & Terminals	$137.7	$573.0
Global Marine Terminals	111.7	471.6
Merchant Services	4.4	15.7
Adjusted EBITDA	$253.7	$1,060.2
Reconciliation of Net Income to Adjusted EBITDA and Distributable Cash Flow:		
Net income	($745.3)	($404.2)
Less: Net income attributable to non-controlling interests	(0.5)	(11.1)
Net income attributable to Buckeye Partners, L.P.	(745.8)	(415.2)
Add: Interest and debt expense	60.3	235.7
Income tax expense	0.6	1.1
Depreciation and amortization	68.5	272.4
Non-cash unit-based compensation expense	4.9	26.1
Acquisition and transition expense	0.0	1.4
Hurricane-related costs, net of recoveries[4]	0.1	0.2
Proportionate share of Adjusted EBITDA for the equity method investment in VTTI[5]	32.3	137.2
Goodwill impairment expense	537.0	537.0
Loss (earnings) from the equity method investment in VTTI[6]	295.9	278.8
Less: Gains on property damage recoveries	0.0	(14.5)
Adjusted EBITDA	$253.7	$1,060.2
Less: Interest and debt expense, excluding amortization of deferred financing costs, debt discounts and other	(56.4)	
Income tax (expense) benefit, excluding non-cash taxes	(0.4)	
Maintenance capital expenditures	(31.9)	
Proportionate share of VTTI's interest expense, current income tax expense, realized foreign currency derivative gains and losses and maintenance capital expenditures	(8.9)	
Add: Hurricane-related maintenance capital expenditures	0.8	
Distributable cash flow	$156.9	
Distributions for coverage ratio[7]	$116.0	
Coverage Ratio	**1.35x**	

(1) Amounts may not recalculate due to rounding.
(2) Last twelve months through September 30, 2018.
(3) Adjusted EBITDA includes contribution from the Asset Divestitures expected to close in the fourth quarter of 2018.
(4) Represents costs incurred at our BBH facility in the Bahamas, Yabucoa Terminal in Puerto Rico, Corpus Christi facilities in Texas, and certain terminals in Florida, as a result of hurricanes which occurred in 2016 and 2017, consisting of operating expenses and write-offs of damaged long-lived assets, net of insurance recoveries.
(5) The calculation of our proportionate share of the reconciling items used to derive these VTTI performance metrics is based upon our 50% equity interest in VTTI, prior to adjustments related to noncontrolling interests in several of its subsidiaries and partnerships, which are immaterial.
(5) Due to the significance of our equity method investment in VTTI B.V. ("VTTI"), effective January 1, 2017, we applied the definitions of Adjusted EBITDA and distributable cash flow, covered in our description of non-GAAP financial measures, with respect to our proportionate share of VTTI's Adjusted EBITDA and distributable cash flow. The calculation of our proportionate share of the reconciling items used to derive these VTTI performance metrics is based upon our 50% equity interest in VTTI, prior to adjustments related to noncontrolling interests in several of its subsidiaries and partnerships, which are immaterial. Included in the three and nine months ended September 30, 2018, is a $300.3 million non-cash loss on the anticipated sale of our investment in VTTI.
(6) Represents cash distributions declared for LP Units, distribution equivalent rights with respect to certain unit-based compensation awards ("DERs"), and the conversion of Class C units to LP units outstanding for the quarter ended September 30, 2018.