



#### **Marcellus to Manufacturing Conference**

May 3, 2017 Jim Crews, Vice President, Business Development

#### **Forward–Looking Statements**



This presentation contains forward-looking statements within the meaning of federal securities laws regarding MPLX LP ("MPLX") and Marathon Petroleum Corporation ("MPC"). These forward-looking statements relate to, among other things, expectations, estimates and projections concerning the business and operations of MPLX and MPC. You can identify forward-looking statements by words such as "anticipate." "believe." "design." "estimate." "expect," "forecast," "goal," "guidance," "imply," "intend," "objective," "opportunity," "outlook," "plan," "position," "pursue," "prospective," "product," "project," "potential," "seek," "target," "could," "may," (should," "would," "will" or other similar expressions that convey the uncertainty of future events or outcomes. Such forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties and other factors, some of which are beyond the companies' control and are difficult to predict. Factors that could cause MPLX's actual results to differ materially from those implied in the forward-looking statements include: negative capital market conditions. including a persistence or increase of the current yield on common units, which is higher than historical yields, adversely affecting MPLX's ability to meet its distribution growth guidance; risk that the synergies from the acquisition of MarkWest Energy Partners, L.P. ("MarkWest") by MPLX may not be fully realized or may take longer to realize than expected; disruption from the MPLX/MarkWest transaction making it more difficult to maintain relationships with customers, employees or suppliers; risks relating to any unforeseen liabilities of MarkWest; the adequacy of MPLX's capital resources and liquidity, including, but not limited to, availability of sufficient cash flow to pay distributions, and the ability to successfully execute its business plans and growth strategies; the timing and extent of changes in commodity prices and demand for crude oil, refined products, feedstocks or other hydrocarbon-based products; volatility in and/or degradation of market and industry conditions; completion of midstream infrastructure by competitors; disruptions due to equipment interruption or failure, including electrical shortages and power grid failures; the suspension, reduction or termination of MPC's obligations under MPLX's commercial agreements; modifications to earnings and distribution growth objectives; the level of support from MPC, including drop-downs, alternative financing arrangements, taking equity units, and other methods of sponsor support, as a result of the capital allocation needs of the enterprise as a whole and its ability to provide support on commercially reasonable terms; federal and state environmental, economic, health and safety, energy and other policies and regulations; changes to MPLX's capital budget; other risk factors inherent to MPLX's industry; and the factors set forth under the heading "Risk Factors" in MPLX's Annual Report on Form 10-K for the vear ended Dec. 31, 2015, filed with the Securities and Exchange Commission (SEC). Factors that could cause MPC's actual results to differ materially from those implied in the forward-looking statements include: risks described above relating to MPLX and the MPLX/MarkWest transaction; changes to the expected construction costs and timing of pipeline projects; continued/further volatility in and/or degradation of market and industry conditions; the availability and pricing of crude oil and other feedstocks; slower growth in domestic and Canadian crude supply; the effects of the lifting of the U.S. crude oil export ban: completion of pipeline capacity to areas outside the U.S. Midwest: consumer demand for refined products: transportation logistics: the reliability of processing units and other equipment; MPC's ability to successfully implement growth opportunities; modifications to MPLX earnings and distribution growth objectives; federal and state environmental, economic, health and safety, energy and other policies and regulations, including the cost of compliance with the Renewable Fuel Standard; MPC's ability to successfully integrate the acquired Hess retail operations and achieve the strategic and other expected objectives relating to the acquisition: changes to MPC's capital budget; other risk factors inherent to MPC's industry; and the factors set forth under the heading "Risk Factors" in MPC's Annual Report on Form 10-K for the year ended Dec. 31, 2015, filed with the SEC. In addition, the forward-looking statements included herein could be affected by general domestic and international economic and political conditions. Unpredictable or unknown factors not discussed here, in MPLX's Form 10-K or in MPC's Form 10-K could also have material adverse effects on forward-looking statements. Copies of MPLX's Form 10-K are available on the SEC website. MPLX's website at http:// ir.mplx.com or by contacting MPLX's Investor Relations office. Copies of MPC's Form 10-K are available on the SEC website. MPC's website at http://ir.marathonpetroleum.com or by contacting MPC's Investor Relations office.

#### Non-GAAP Financial Measures

EBITDA, Adjusted EBITDA and distributable cash flow are non-GAAP financial measures provided in this presentation. EBITDA, Adjusted EBITDA and distributable cash flow reconciliations to the nearest GAAP financial measure are included in the Appendix to this presentation. EBITDA, Adjusted EBITDA and distributable cash flow are not defined by GAAP and should not be considered in isolation or as an alternative to net income attributable to MPC or MPLX or other financial measures prepared in accordance with GAAP. The EBITDA forecast related to MPC's marine assets was determined on an EBITDA, Accordingly, information related to the elements of net income, including tax, and interest, are not available and, therefore, a reconciliation of this non-GAAP financial measure to the nearest GAAP financial measure has not been provided.



#### Who is MarkWest and MPLX?

#### MarkWest is One of the Largest NGL and Natural Gas Midstream Service Providers



#### Processing ~75% of Total Rich-Gas Production from the Marcellus and Utica





- 1.4 Bcf/d transmission capacity
- 3.1 Bcf/d gathering volumes
- 5.3 Bcf/d total processed volumes
- 348 MBD total NGL volumes
- 265 MBD total fractionated volumes
- Volumes represent 4Q 2015 average

## Leveraging Strengths Across the Hydrocarbon Value Chain





#### Gathering & Processing Marcellus & Utica Operations





Processing Fractionation 0.8 Bcf/d cryogenic capacity

ion 64,000 Bbl/d of fractionation capacity



#### **Gathering & Processing**

#### **Growth Projects**





## KEY ASSETS IN THE LOWER HURON AND ROGERSVILLE



MARKWEST

MarkWest Gas Processing Facilities			
Plant	Location	Capacity	
Kenova	Wayne County, WV	160 MMcfd	
Langley	Langley, KY	325 MMcfd	
Boldman	Pike County, KY	70 MMcfd	
Cobb	Kanawha County, WV	65 MMcfd	
Kermit	Mingo County, WV	32 MMcfd	
Total Rogersville		652 MMcfd	

MarkWest Fractionation Facility			
Plant	Location	Capacity	Storage/Transport
			Tanks: ~48 MBbls
Siloam	South Shore, KY	24 MBPD	Underground: ~238 MBbls
			Pipeline, Rail, Barge, Truck

MarkWest NGL Pipelines		
System	Location	Capacity
Ranger	Langley to Kenova to Siloam	19 MBPD



#### How much do we have?

## The Marcellus/Utica Resource Play is the Leading U.S. Natural Gas Growth Play





Note: Wellhead gas production (before flaring and NGL extraction) Sources: As of Jan. 11, 2016. Bloomberg (LCI Energy Insight Estimates), BENTEK, MarkWest Energy Partners, L.P.

## Marcellus & Utica Operations

Volume Growth Driven by Diverse Set of Producer Customers

• MarkWest supports over 20 producer customers and has million acres of area dedication in Ohio, Pennsylvania, and West Virginia





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#### **Ethane full recovery for Marcellus & utica**



ENERGYLOOM

#### **NORTHEAST NGL SUPPLY IS RAPIDLY INCREASING**





#### THE US IS THE CRITICAL LPG SUPPLY

**Global NGL Field Production** 



ENERGYLOGIST



MARKWEST

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#### **Economics**

# Manufacturing opportunities in a low price gas environment



#### Methane

- Heating Fuel
- Electricity-Combustion Turbines
- Steel-Direct Reduction Iron (DRI)
- Ammonia-Fertilizer
- Ammonia-Explosives
- Aluminum
- Cement
- Glass

#### Ethane, Propane, Butane, and Condensate

- Ethylene Oxide
- Ethylene Glycol
- Polyethylene
- Propylene Oxide
- Propylene Glycol
- Polypropylene
- Butylene
- Iso-butane
- Diluent
- Jet Fuel
- Gasoline
- Light and Heavy Naptha
- Lubricants

ENERGYLOOIST



- Strong global LPG demand this decade
  - » 2010-2014 3.4%
  - » 2015-2020 3.1%
- Global ethane demand accelerating, led by the
  - 2010-2014 6.5%
  - 2015 2020 7.6%

PIRA

#### Implied Appalachian Ethane Price-cents per gallon (cpg)-Producers Prospective



	Appalachia	Mt. Belvieu, TX	Sarnia, Ontario	Philly, PA Marcus Hook
DTI S. Point Price-\$/Dth	\$2.65	\$2.65	\$2.65	\$2.65
DTI S. Point- cpg	17.6	17.6	17.6	17.6
C2 Value	17.6	25*	17.6	17.6
ATEX		(15-25)		
Mariner			<u>(15)</u>	<u>(20)</u>
Netback	17.6	10-0	2.6	(2.4)
Netback-\$/ Dth	\$2.65	\$1.50-\$0	\$0.39	(\$0.36)

#### Transportation Rates

- Appalachia to Marcus Hook = 20 cpg (ME1-2)
- Appalachia to Sarnia via Mariner West = 15 cpg.
- Appalachia to MTB via ATEX = 15-25 cpg.
- Marcus Hook to ARA = 5-10 cpg.
- MTB to ARA = 5-10 cpg.

ARA = Amsterdam, Rotterdam, Antwerp

## C2 Cracker Expansions Add 800 MBPD of Demand

Company	Location	Ethane Demand-MBPD	Start-Up Date
LyondellBassell	Corpus Christi, TX	22.4	Q1 2017
Dow	Plaquemine, LA	12.3	Q1 2017
OxyChem JV*	Ingleside, TX	33.6	Q1 2017
Dow*	Freeport, TX	92.7	H2 2017
Indorama*	Lake Charles, LA	16.1	H2 2017
Exxon Mobil*	Baytown, TX	92.7	H2 2017
Conoco Phillips*	Cedar Bayou, TX	92.7	Q1 2018
Shintech*	Plaquemine, LA	30.8	Q2 2018
Sasol*	Lake Charles, LA	92.7	Q4 2018
Westlake/Lotte*	Lake Charles, LA	61.6	Q1 2019
Formosa*	Point Comfort, TX	98.0	Q2 2019
Total, Nova, Borealis	Port Arthur, TX	61.6	Q1 2021
Shell Appalachia	Monaca, PA	100.0	TBD

#### VALUE ADDED MANUFACTURING DEFICIENCIES



	Appalachia	Mt. Belvieu
NGL Liquid Trading Point	No	Yes
Underground NGL Storage- Barrels	0	213,000,000
Fractionation-Barrels/day	550,000	1,623,000
Steam Crackers-C2-Barrels	0 going to 0.146 MM in 2021	1.1MM going to 1.5 MM in 2018
Propane Dehydrogenation Units-PDH- Barrels/day	0	35,000
Condensate Splitters-Barrels/ day	60,000 (Marathon-Canton, Catlettsburg)	
42 gallons = 1 Barrel		





- The Appalachian Basin produces 33% of total US Natural Gas.
- The US Produces 50-60% of the worlds NGL's.
- Appalachia produces 25-30% of US NGL's including C2.
- The lowest cost Natural Gas and NGL's are in the Appalachian Basin for the next century.
- Appalachian manufacturers of base and derivative products have a significant price advantage.
- Lack of a Liquid NGL and C2 trading hub forces producers and manufactures to take on expensive, long term transportation contracts to get to market.
- NGL storage is the first step in an Appalachian manufacturing renaissance.

# RERGYLOGISTICS