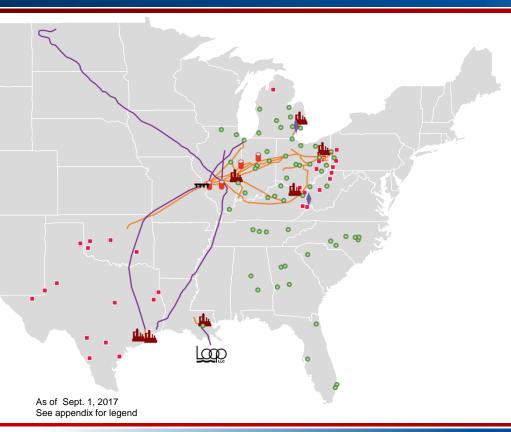


### **About MPLX**





- Growth-oriented, diversified MLP with high-quality, strategically located assets with leading midstream position
- Two primary businesses
  - Logistics & Storage includes transportation, storage and distribution of crude oil, refined petroleum products and other hydrocarbon-based products
  - Gathering & Processing includes gathering, processing, and transportation of natural gas and the gathering, transportation, fractionation, storage and marketing of NGLs
- Investment-grade credit profile with strong financial flexibility
- MPC as sponsor has interests aligned with MPLX
  - MPLX assets are integral to MPC
  - Growing stable cash flows through continued investment in midstream infrastructure

### **Gathering & Processing**

### Segment Overview





- One of the largest NGL and natural gas midstream service providers
  - Gathering capacity of 5.6 Bcf/d
    - ~60% Marcellus/Utica; ~40% Southwest
  - Processing capacity of 8.0 Bcf/d\*
    - ~70% Marcellus/Utica; ~20% Southwest
  - C2 + Fractionation capacity of 567 MBPD\*\*
    - ~90% Marcellus/Utica
- Primarily fee-based business with highly diverse customer base and established long-term contracts

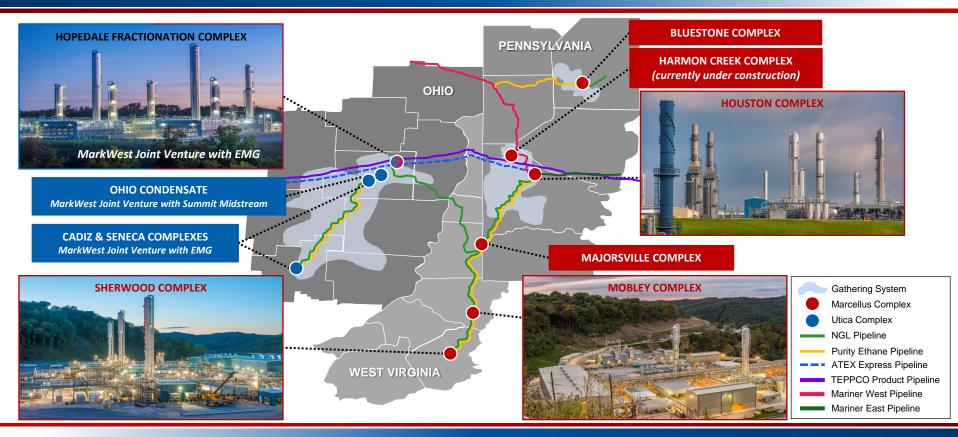
<sup>\*</sup>Includes processing capacity of non-operated joint venture

<sup>\*\*</sup>Includes condensate stabilization capacity

### **Marcellus/Utica Overview**



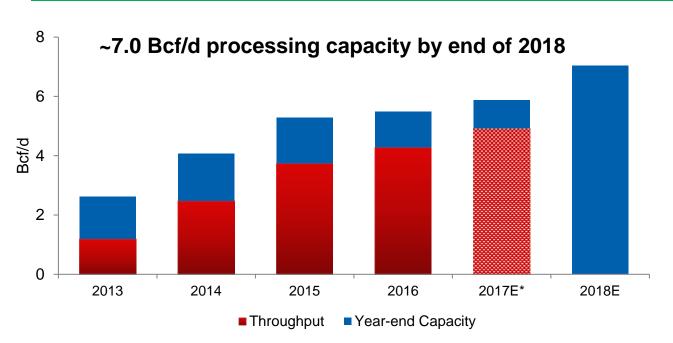
3.5 Bcf/d Gathering, 5.8 Bcf/d Processing & 491 MBPD C2+ Fractionation Capacity



# Marcellus/Utica Processing Capacity Building infrastructure to support basin volume growth



### Currently operate ~66% of processing capacity in Marcellus/Utica Basin



2017 expected plant completions Sherwood VII (in service 1Q17) Sherwood VIII (in service 3Q17)

2018 expected plant completions
Harmon Creek
Houston I
Majorsville VII
Sherwood IX
Sherwood X
Sherwood XI

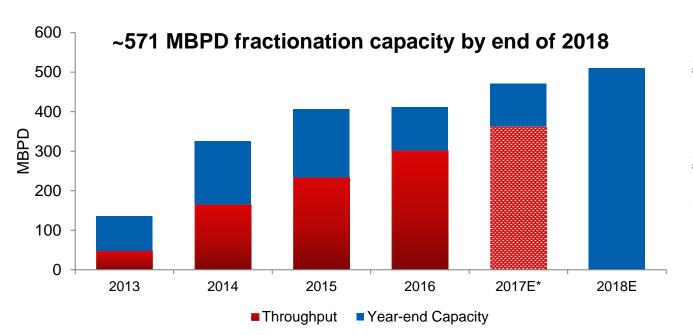
Note: 2013 through 2015 include MarkWest volumes prior to acquisition by MPLX

\*2017 throughput assumes 15% growth rate over prior year

# Marcellus/Utica Fractionation Capacity Building infrastructure to support growing C2 and C3+ demand



### Currently operate ~55% of fractionation capacity in Marcellus/Utica Basin



2017 expected plant completions
Hopedale III C3+ (in service 1Q17)
Bluestone C2 (in service 3Q17)
Majorsville II C2

2018 expected plant completions Harmon Creek C2 Sherwood C2

Note: 2013 through 2015 include MarkWest volumes prior to acquisition by MPLX



### What is Wet Gas?

# **Typical Wet Gas Composition**



Component	Mole%	Gallons Per Mcf (GPM)	Common Name
Methane	74.22		Natural Gas, Pipeline Gas, Residue
Ethane	15.62	4.17	1/3 Natural Gas, Pipeline Gas, Residue
Propane	5.46	1.50	NGL or LPG
Iso Butane	0.655	0.21	NGL or LPG
Normal Butane	1,437	0.45	NGL or LPG
Iso Pentane	0.48	0.17	Drip Gas, Condensate or Naptha
Normal Pentane	0.54	0.19	Drip Gas, Condensate or Naptha
Hexanes+	1.06	0.46	Drip Gas, Condensate or Naptha
Inerts(N2, O2, CO2)	0.52		
Total	100	7.15	

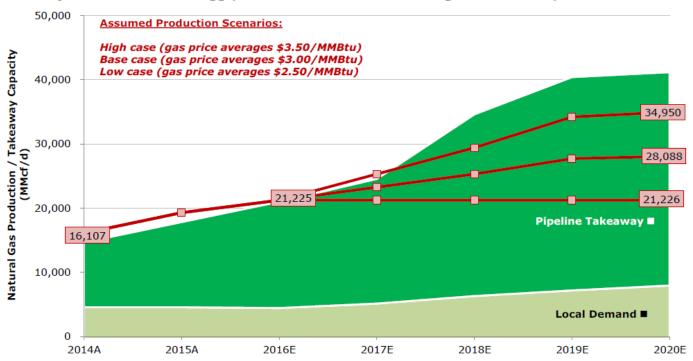


### How much do we have?

### Appalachian Shale Supply vs. Price



Exhibit 5. Marcellus-Utica: Supply Versus Local Demand And Pipeline Takeaway



Source: Company data, EIA, and Wells Fargo Securities, LLC estimates

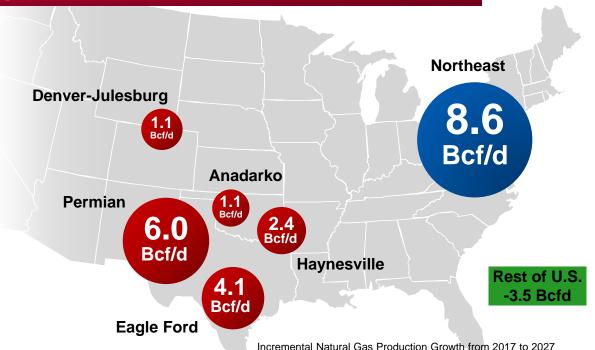
## Natural Gas Supply Growth Forecast





### ~43% of total U.S. growth is expected to occur in Northeast

- Total U.S. natural gas supply is forecasted to grow by ~20 Bcf/d from 2017 to 2027
- MPLX well-positioned as largest processor in Northeast with growing backlog of projects in Marcellus/Utica and other prolific basins

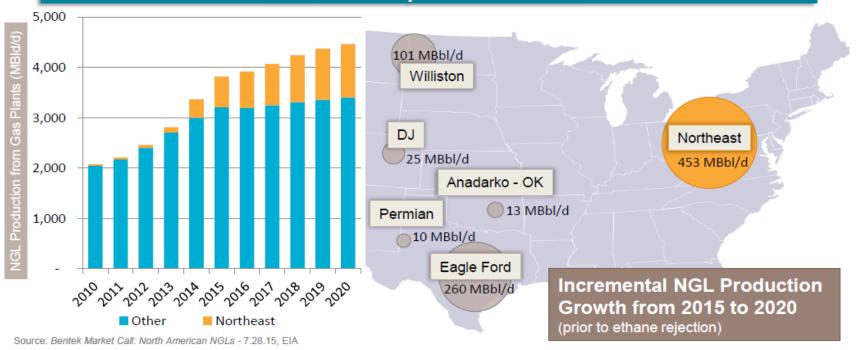


Source: Bentek Market Call: North American NGLs - August 21, 2017

# Northeast NGL supply is Rapidly Increasing



# Northeast NGL production is forecasted to account for 24% of total U.S. NGL production in 2020

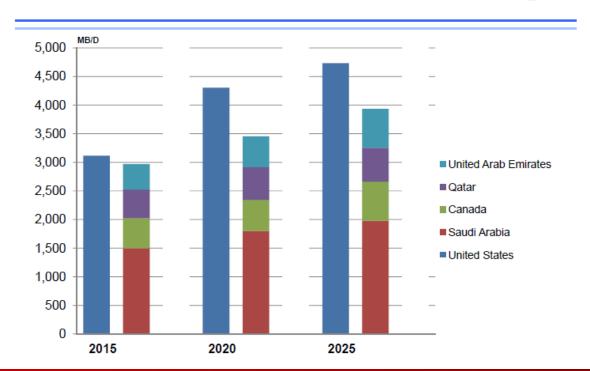


# The U.S. is the Critical LPG Supply



#### Global NGL Field Production







### **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

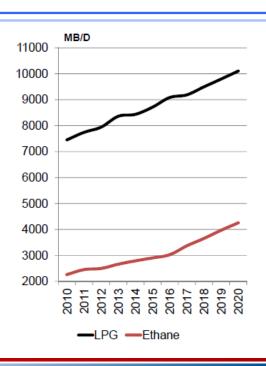
- Ethylene Oxide
- Ethylene Glycol
- Polyethylene
- Propylene Oxide
- Propylene Glycol
- Polypropylene
- Butylene
- Iso-butane
- Diluent
- Jet Fuel
- Gasoline
- Light and Heavy Naptha
- Lubricants

## The World Needs U.S. LPG Supply



#### Global Demand: Ethane and LPG





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

# Implied Appalachian Ethane Price-cents per Gallon (cpg)-Producers Perspective



	Appalachia	Mt. Belvieu, TX	Sarnia, Ontario	Philly, PA Marcus Hook
DTI S. Point Price-\$/Dth (Winter Strip)	\$2.69	\$2.69	\$2.69	\$2.69
DTI S. Point- cpg	17.9	17.9	17.9	17.9
C2 Value	17.9	26*	17.9	17.9
ATEX		(15)		
<u>Mariner</u>			<u>(15)</u>	(20)
Netback	17.9	11.0	2.9	(2.1)
Netback- \$/Dth	\$2.69	\$1.65	\$0.44	(\$0.32)

### 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 Value at Mt. Belvieu, TX

# C2 Cracker Expansions Add 800 MBPD of Demand



Company	Location	Ethane Demand-MBPD	In Service - Start-Up
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

\*New Plant Source: Evantage

# **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		

## Summary



- The Appalachian Basin produces 33% of total US natural gas.
- The US Produces 50-60% of the world's NGL's.
- Appalachia produces 20% of US NGL's including C2 by 2020.
- The lowest cost natural gas and NGL are in the Appalachian Basin for the foreseeable future.
- Appalachian manufacturer's of base and derivative products have a significant price advantage.
- Lack of a Liquid NGL and C2 trading hub forces producers'/manufactures' take on expensive, long term transportation contracts to get to market.
- NGL storage is the first step in an Appalachian manufacturing renaissance.

