

**SOOGA SPRING MEETING 2016  
APRIL 21, 2016  
MARIETTA, OHIO**

**ANTERO RESOURCES CORPORATION**

**J. KEVIN ELLIS  
VICE PRESIDENT-GOVERNMENT RELATIONS**





## TOPICS FOR DISCUSSION

- Antero Resources Operational Results
- W. Va. Legislative and Regulatory Update
- Legal Update – Select W. Va. decisions



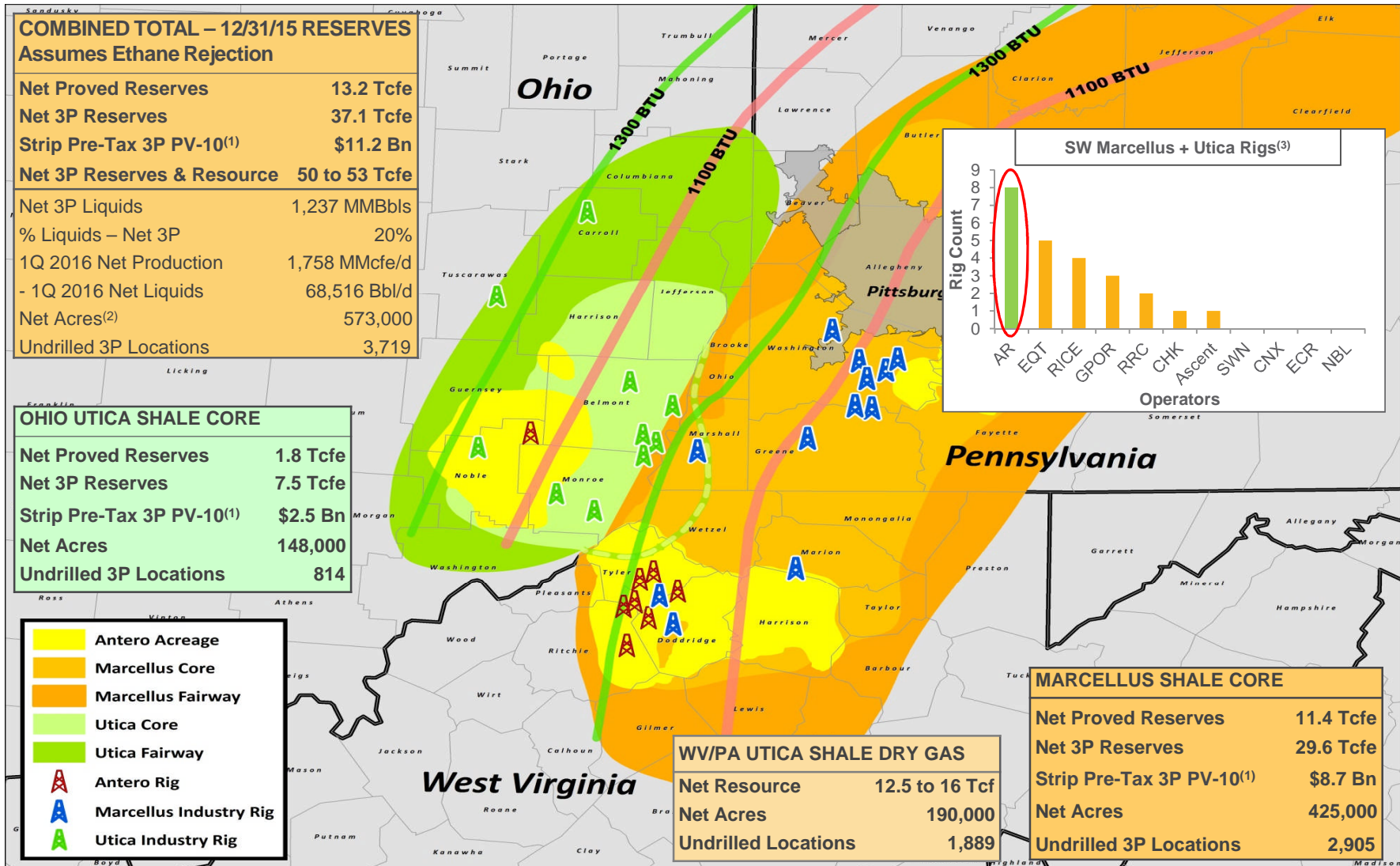


# ANTERO RESOURCES OPERATIONAL RESULTS

## QUARTER 1 2016 KEY HIGHLIGHTS

- Average net daily gas equivalent production was a record 1,758MMcfe/d (23% liquids), an 18% increase over the prior year quarter and a 17% increase sequentially
- Average net daily liquids production was a record 68,516 Bbl/d a 71% increase over the prior year quarter and a 25% increase sequentially (Includes 11,884 Bbl/d ethane)
- Recently set a Company record for the longest lateral feet drilled by a rig in a 24 hour period at 5,291 feet in the Marcellus
- Recently drilled and cased the longest lateral in Company history at 14,024 feet in Marcellus

# DRILLING – MOST ACTIVE OPERATOR IN APPALACHIA



Note: 2015 SEC prices were \$2.56/MMBtu for natural gas and \$50.13/Bbl for oil on a weighted average Appalachian index basis.

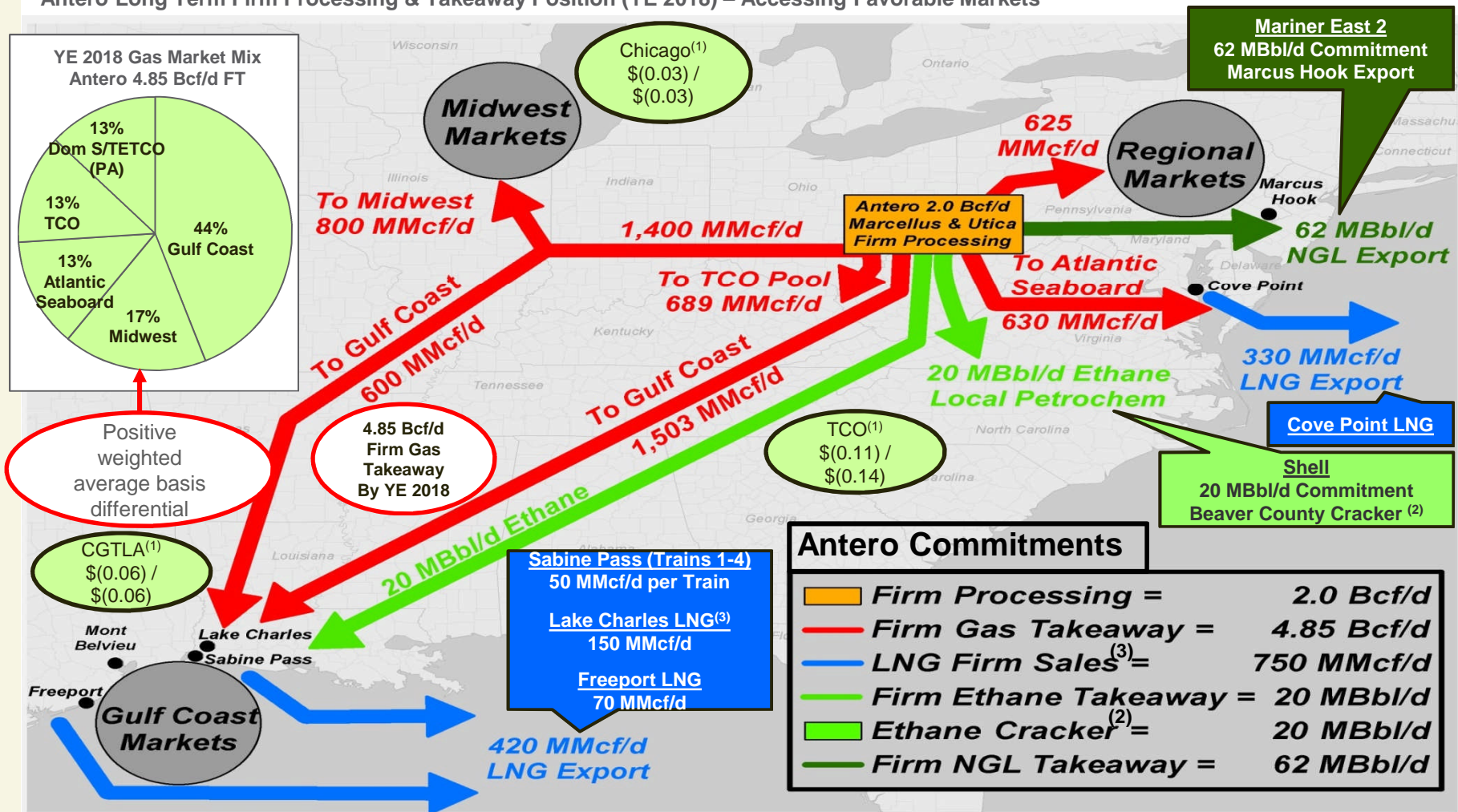
1. 3P reserve pre-tax PV-10 based on annual strip pricing for first 10-years and flat thereafter as of December 31, 2015. NGL pricing assumes 39%, 46% and 48% of WTI strip prices for 2016, 2017 and 2018 and thereafter, respectively.
2. All net acres allocated to the WV/PA Utica Shale Dry Gas and Upper Devonian Shale are included among the net acres allocated to the Marcellus Shale as they are stacked pay formations attributable to the same leasehold.
3. Antero and industry rig locations as of 4/1/2016, per RigData.



# TAKEAWAY – LARGEST FT AND PROCESSING PORTFOLIO IN APPALACHIA



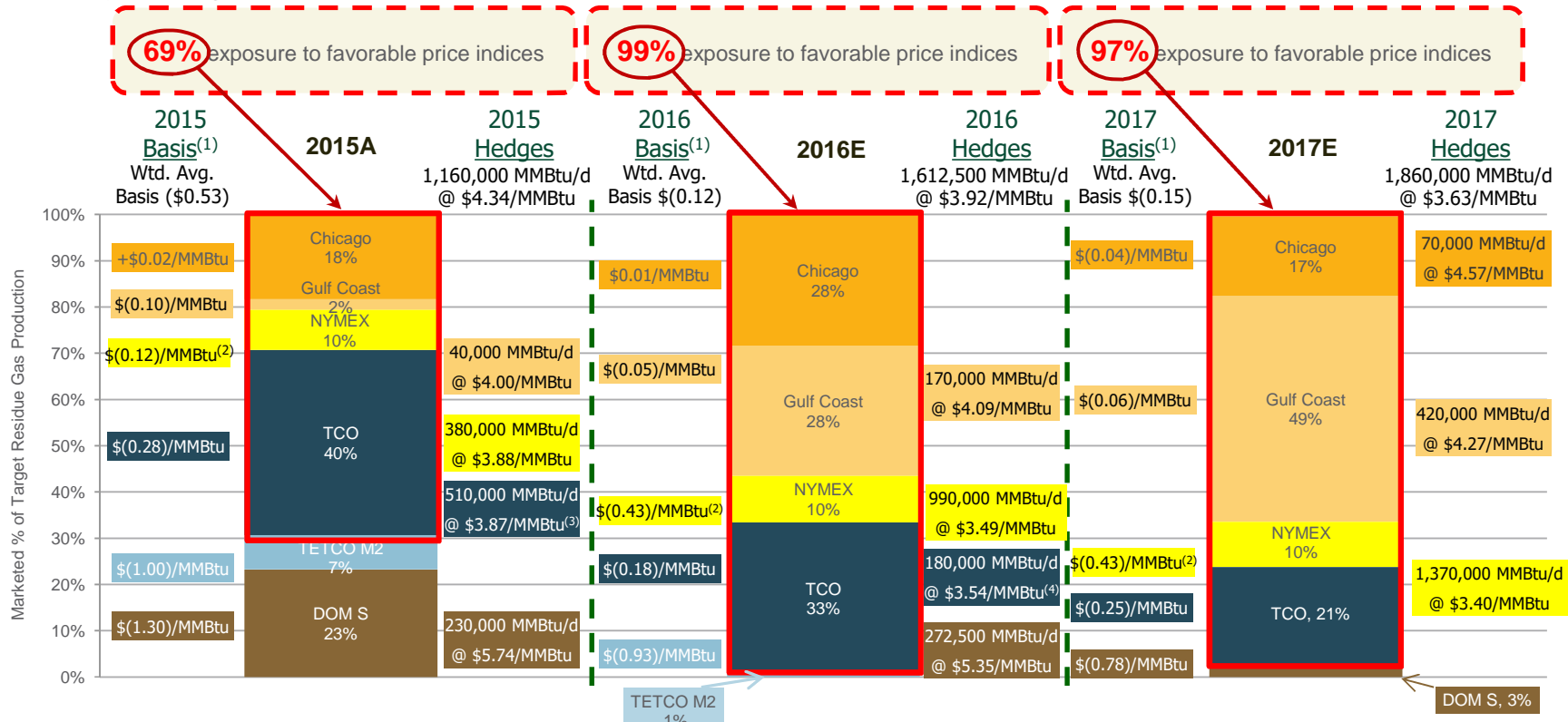
- Antero's natural gas firm transportation (FT) portfolio builds to 4.85 Bcf/d by YE 2018 with 87% serving favorable markets, with an average demand fee of \$0.46/MMBtu and positive weighted average basis differential to NYMEX after assumed Btu uplift for gas
- Antero Long Term Firm Processing & Takeaway Position (YE 2018) – Accessing Favorable Markets**



1. May 2016 and full year 2016 futures basis, respectively, provided by Intercontinental Exchange dated 3/31/2016. Favorable markets shaded in green.  
 2. Subject to Shell FID expected mid-year 2016.  
 3. Lake Charles LNG 150 MMcf/d commitment subject to BG FID expected in 2016.

# REALIZATIONS – FAVORABLE PRICE INDICES

- Antero's exposure to favorable gas price indices like Chicago, Gulf Coast, NYMEX and TCO is expected to increase to >99% in 2016
- Improved 2016 realizations driven by Stonewall gathering pipeline which was placed in-service December 1, 2015 and will eliminate virtually all swing sales at Dominion South and Tetco in 2016



(\$/Mcf)	2015A	2016E
NYMEX Strip Price <sup>(1)</sup>	\$2.66	\$2.47
Basis Differential to NYMEX <sup>(1)</sup>	\$(0.53)	\$(0.12)
BTU Upgrade <sup>(5)</sup>	\$0.24	\$0.24
Estimated Realized Hedge Gains	\$1.44	\$1.50
<b>Realized Gas Price with Hedges</b>	<b>\$3.81</b>	<b>\$4.10</b>
<b>Premium to NYMEX</b>	<b>+\$1.15</b>	<b>+\$1.63</b>
Liquids Impact	+\$0.29	+\$0.10
<b>Premium to NYMEX w/ Liquids</b>	<b>+\$1.44</b>	<b>+\$1.73</b>
<b>Realized Gas-Equivalent Price</b>	<b>\$4.10</b>	<b>\$4.16</b>

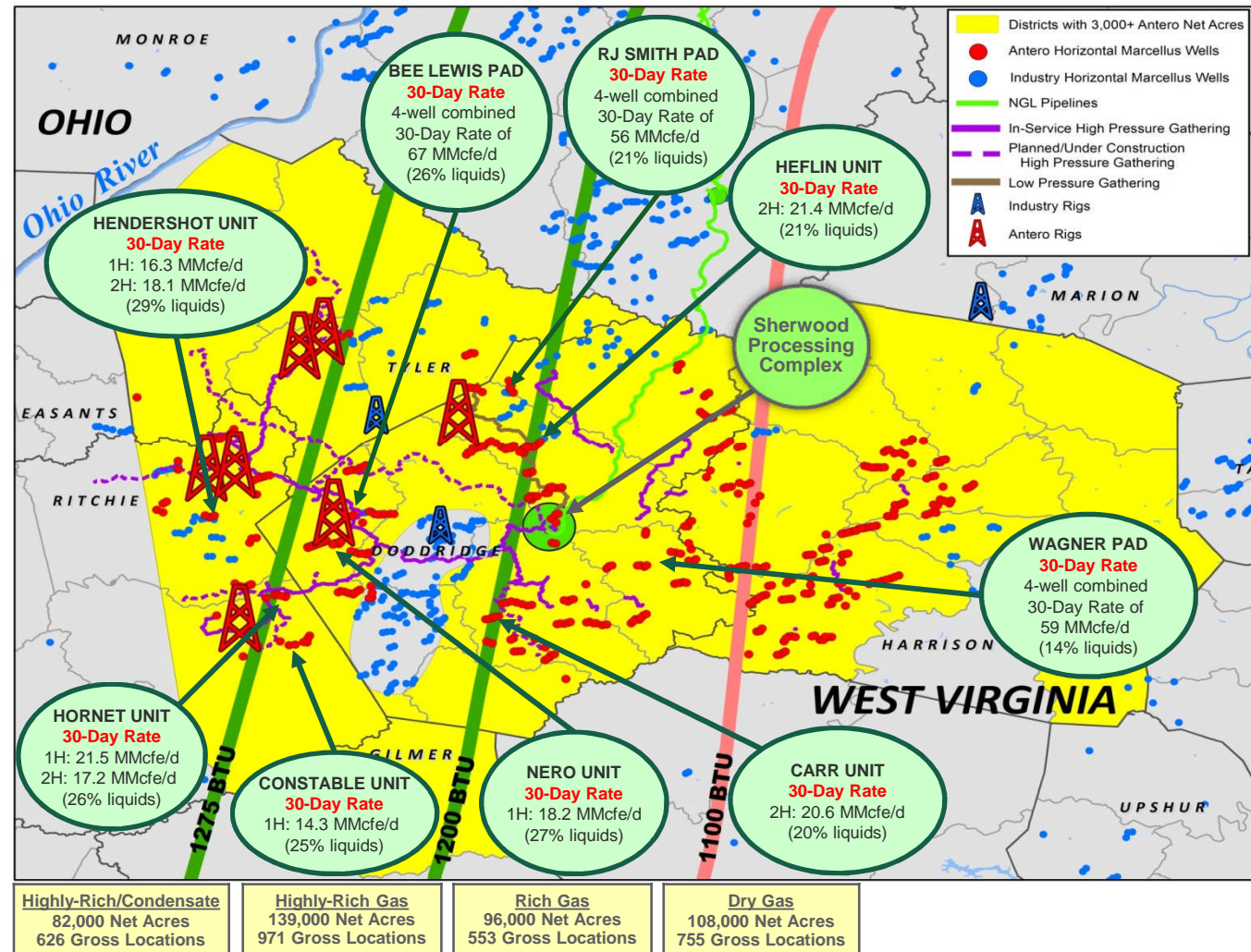
Current markets indicate positive differential in 2016

Note: Hedge volumes as of 12/31/2015.

1. Based on 12/31/2015 strip pricing and actuals for 2015.
2. Differential represents contractual deduct to NYMEX-based firm sales contract.
3. Represents 120,000 MMBtu/d of TCO index hedges and 390,000 MMBtu/d of TCO basis hedges that are matched with NYMEX hedges for presentation purposes.
4. Represents 60,000 MMBtu/d of TCO index hedges and 120,000 MMBtu/d of TCO basis hedges that are matched with NYMEX hedges for presentation purposes.
5. Based on BTU content of residue sales gas.

# WORLD CLASS MARCELLUS SHALE DEVELOPMENT PROJECT

- 100% operated
- Operating 7 drilling rigs including 1 intermediate rig
- 425,000 net acres in southwestern Marcellus core (75% includes processable rich gas assuming an 1100 Btu cutoff)
  - 52% HBP with additional 26% not expiring for 5+ years
- 452 horizontal wells completed and online
  - Laterals average 7,600'
  - 100% drilling success rate
- 6 plants in-service at Sherwood Processing Complex capable of processing in excess of 1.2 Bcf/d of rich gas
  - Over 900 MMcf/d of Antero gas being processed currently
- Net production of 1,232 MMcf/d in 1Q 2016, including 46,900 Bbl/d of liquids
- 2,905 future drilling locations in the Marcellus (2,150 or 74% are processable rich gas)
- 29.6 Tcfe of net 3P (21% liquids), includes 11.4 Tcfe of proved reserves (assuming ethane rejection except for 1.1 Tcfe)



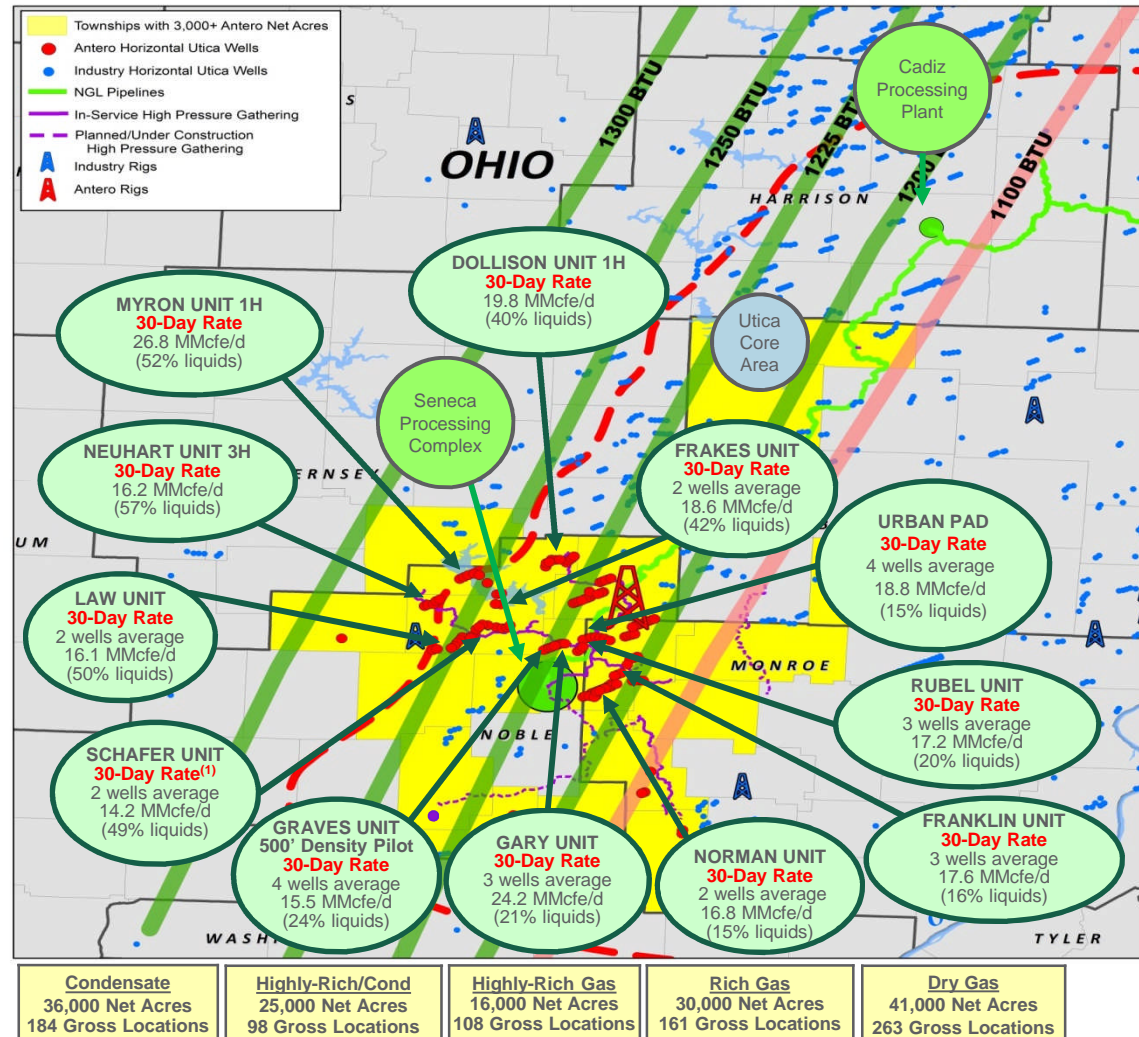
Source: Company presentations and press releases. Antero acreage position reflects tax districts in which greater than 3,000 net acres are held. Note: Rates in ethane rejection.



# WORLD CLASS OHIO UTICA SHALE DEVELOPMENT PROJECT



- 100% operated
- Operating 1 drilling rig
- 148,000 net acres in the core rich gas/condensate window (72% includes processable rich gas assuming an 1100 Btu cutoff)
  - 29% HBP with additional 60% not expiring for 5+ years
- 121 operated horizontal wells completed and online in Antero core areas
  - 100% drilling success rate
- 4 plants in-service at Seneca Processing Complex capable of processing 800 MMcf/d of rich gas
  - Over 500 MMcf/d being processed currently, including third party production
- Net production of 526 MMcf/d in 1Q 2016 including 21,600 Bbl/d of liquids
- Fifth third-party compressor station went in-service September 2015 with a capacity of 120 MMcf/d
- First AM compressor station went in-service November 2015
- 814 future gross drilling locations (551 or 68% are processable gas)
- 7.5 Tcfe of net 3P (15% liquids), includes 1.8 Tcfe of proved reserves (assuming ethane rejection)



Note: Antero acreage position reflects townships in which greater than 3,000 net acres are held. Antero 30-day rates in ethane rejection.  
1. 30-day rate reflects restricted choke regime.



# HEALTH, SAFETY, ENVIRONMENT & COMMUNITY

## Antero Core Values: Protect Our People, Communities And The Environment

### Strong West Virginia Presence

- 79% of all Antero Marcellus employees and contract workers are West Virginia residents



- Antero named Business of the Year for 2013 in Harrison County, West Virginia “For outstanding corporate citizenship and community involvement”



- Antero representatives recently participated in a ribbon cutting with the Governor of West Virginia for the grand opening of the first natural gas fueling station in the state; Antero supported the station with volume commitments for its NGV truck fleet

### Keys to Execution

<b>Local Presence</b>	<ul style="list-style-type: none"> <li>Antero has more than 3,500 employees and contract personnel working full-time for Antero in West Virginia. 79% of these personnel are West Virginia residents.</li> <li>District office in Marietta, OH</li> <li>District office in Bridgeport, WV</li> <li>227 (48%) of Antero’s 473 employees are located in West Virginia and Ohio</li> </ul>
<b>Safety &amp; Environmental</b>	<ul style="list-style-type: none"> <li>Five company safety representatives and 57 safety consultants cover all material field operations 24/7 including drilling, completion, construction and pipelining</li> <li>37 person environmental staff plus outside consultants monitor all operations and perform baseline water well testing</li> </ul>
<b>Central Fresh Water System &amp; Water Recycling</b>	<ul style="list-style-type: none"> <li>Numerous sources of water – built central water system to source fresh water for completions</li> <li>Antero recycled over 74% of its flowback and produced water through 2014</li> <li>Building state of the art wastewater treatment facility in WV (60,000 Bbl/d)</li> </ul>
<b>Natural Gas Vehicles (NGV)</b>	<ul style="list-style-type: none"> <li>Antero supported the first natural gas fueling station in West Virginia</li> <li>Antero has 30 NGV trucks and plans to continue to convert its truck fleet to NGV</li> </ul>
<b>Pad Impact Mitigation</b>	<ul style="list-style-type: none"> <li>Closed loop mud system – no mud pits</li> <li>Protective liners or mats on all well pads in addition to berms</li> </ul>
<b>Natural Gas Powered Drilling Rigs &amp; Frac Equipment</b>	<ul style="list-style-type: none"> <li>6 of Antero’s contracted drilling rigs are currently running on natural gas</li> <li>First natural gas powered clean fleet frac crew began operations summer 2014</li> </ul>
<b>Green Completion Units</b>	<ul style="list-style-type: none"> <li>All Antero well completions use green completion units for completion flowback, essentially eliminating methane emissions (full compliance with EPA 2015 requirements)</li> </ul>
<b>LEED Gold Headquarters Building</b>	<ul style="list-style-type: none"> <li>Corporate headquarters in Denver, Colorado LEED Gold Certified</li> </ul>

## CLEAN FLEET & CNG TECHNOLOGY LEADER

- Antero has contracted for two clean completion fleets to enhance the economics of its completion operations and reduce the environmental impact
- Replaces diesel engines (for pressure pumping) with electric motors powered by natural gas-fired electric generators
- A clean fleet allows Antero to fuel part of its completion operations from field gas instead of more expensive diesel fuel. Benefits of using a clean fleet include:
  - Reduce fuel costs by up to 80% representing cost savings of up to \$40,000/day
  - Reduces NOx and CO emissions by 99%
  - Eliminates 25 diesel truckloads from the roads for an average well completion
  - Reduces silica dust to levels 90% below OSHA permissible exposure limits resulting in a safer and cleaner work environment
  - Significantly reduces noise pollution from a well site
  - Is the most environmentally responsible completion solution in the oil and gas industry
- Additionally, Antero utilizes compressed natural gas (CNG) to fuel its truck fleet in Appalachia
  - Antero supported the first natural gas fueling station in West Virginia
  - Antero has 30 NGV trucks and plans to continue to convert its truck fleet to NGV



# ANTERO MIDSTREAM ADVANCED WASTEWATER TREATMENT ASSET OVERVIEW



- Antero has contracted with Veolia to integrate an advanced wastewater treatment complex into its water business

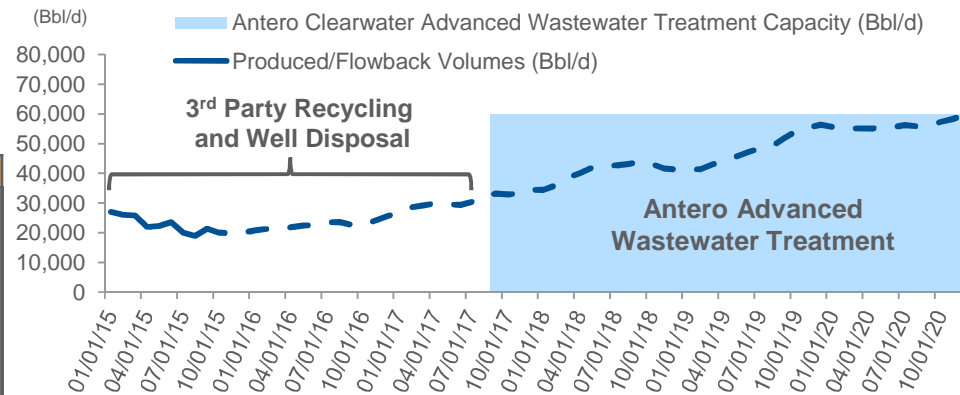
## Advanced Wastewater Treatment

- Veolia will build and operate, and Antero will own largest advanced wastewater treatment complex in Appalachia
  - Will treat and recycle AR produced and flowback water
  - Creates additional year-round water source for completions
  - Will have capacity for third party business over first two years

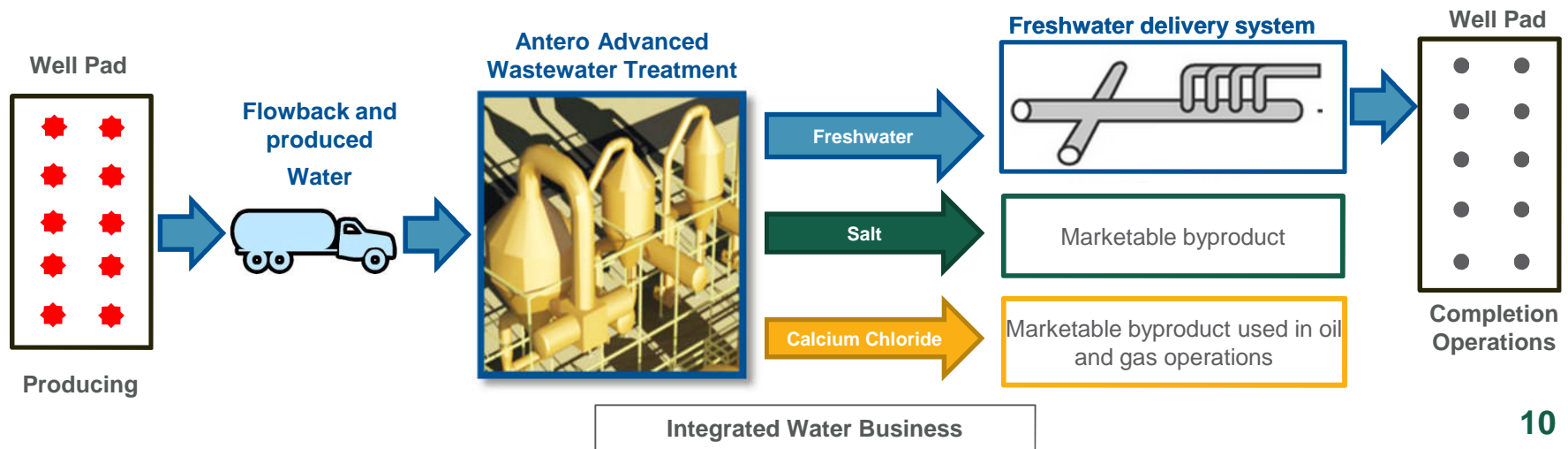
### Advanced Wastewater Treatment Complex

Estimated capital expenditures (\$ million) <sup>(1)</sup>	~\$275
Standalone EBITDA at 100% utilization <sup>(2)</sup>	~\$55 – \$65
Implied investment to standalone EBITDA build-out multiple	~4x – 5x
Estimated per well savings to Antero Resources	~\$150,000
Estimated in-service date	Late 2017
Operating capacity (Bbl/d)	60,000
Operating agreement	20 Years, Extendable

## Illustrative Produced & Flowback Water Volumes



## Antero Produced Water Services and Freshwater Delivery Business



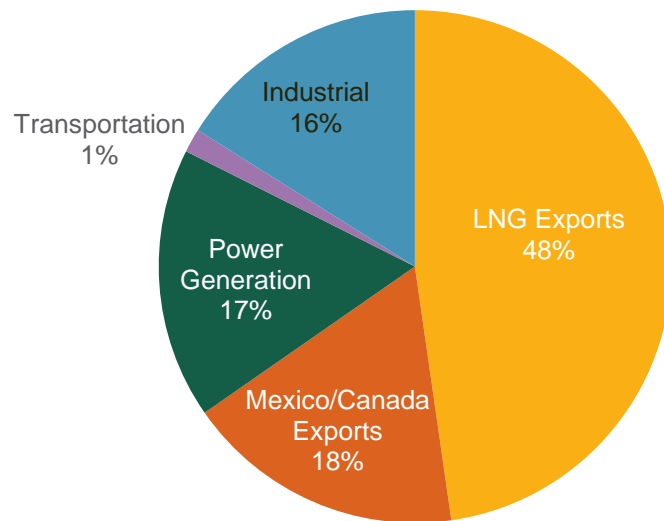
1. Includes capital to construct pipeline to connect facility to freshwater delivery system. Includes \$10 million that AR agreed to fund in the drop down transaction.  
 2. Standalone EBITDA projection assumes inter-company fixed fee for recycling of \$4.00 per barrel and 60,000 barrels per day of capacity. Does not include potential sales of marketable byproducts.



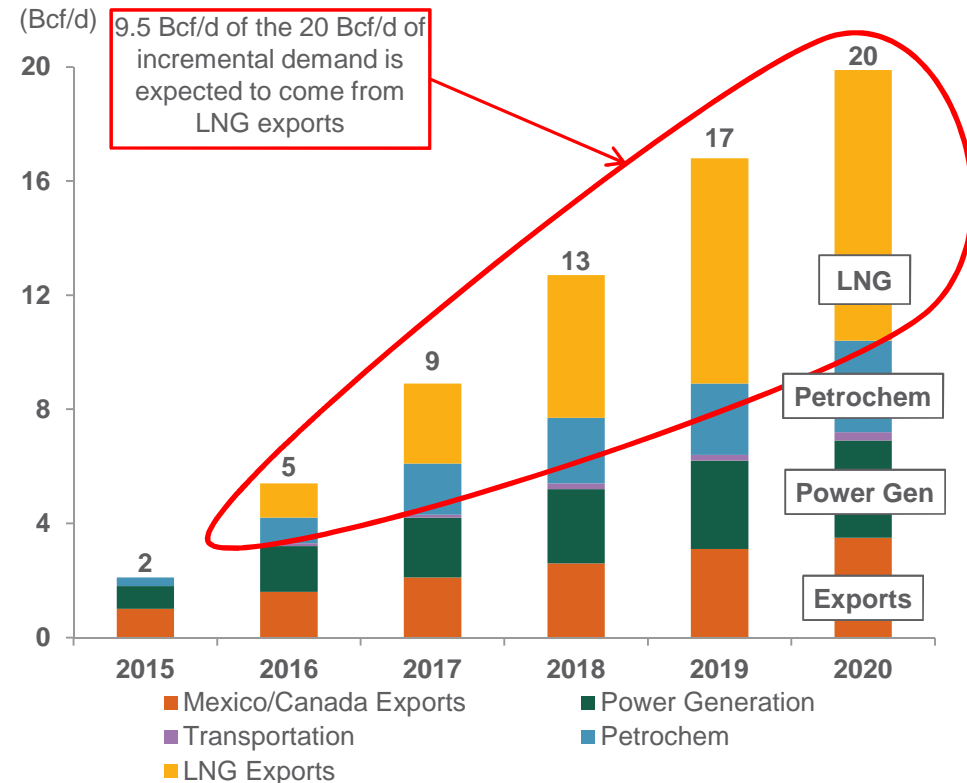
# 20 BCF/D OF INCREMENTAL GAS DEMAND BY 2020

- Significant demand growth expected for U.S. natural gas
- More than 65% of the 20 Bcf/d in incremental gas demand forecast by 2020 is expected to be generated from exports:
  - LNG: 9.5 Bcf/d (~48%)
  - Mexico/Canada: 3.5 Bcf/d (~18%)
- Of the 9.5 Bcf/d of expected incremental demand from LNG export projects, 6.7 Bcf/d (or 70%) of the projects have secured the necessary DOE and FERC permits

**Incremental Demand Growth Through 2020 by Category**



**Projected Incremental Natural Gas Demand Through 2020**



Source: Simmons & Company International, "2015 US Natural Gas Outlook and Updated Long Term Demand Forecast," September 2014.

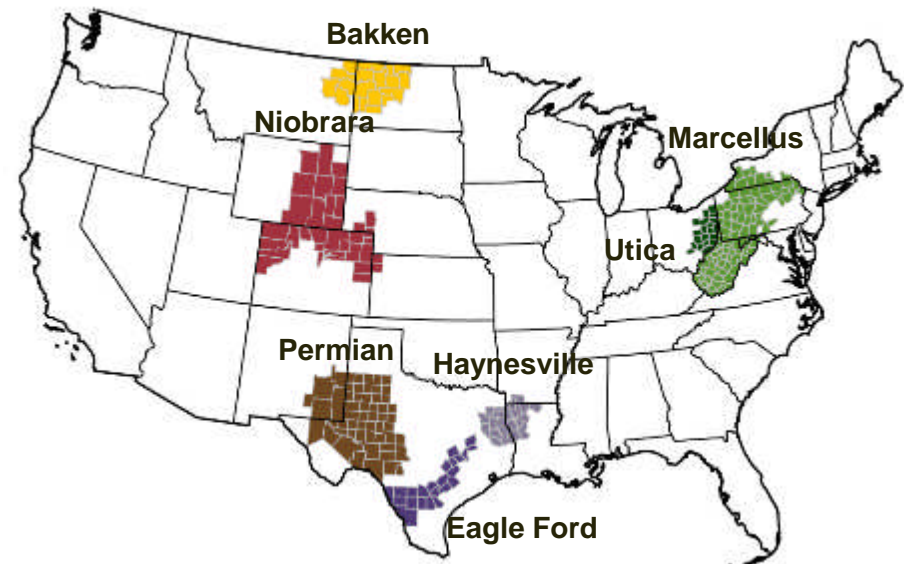
# OBSERVATIONS

## *When Will Prices Recover?*

- Production is “rolling over” as drilling declines
- Demand is increasing
- Antero expects prices to improve over the next two years as “unsustainable” drilling declines

## *Where Will Drilling Recover?*

- Appalachia - Marcellus & Utica will lead the recovery for gas drilling and production
- The seven regions illustrated on this map account for 95% of domestic oil production growth and all domestic natural gas production growth during 2011-13
- Antero expects these seven regions to lead the recovery in drilling



# 2016 Legislative Update



## 2016 LEGISLATIVE UPDATE



- Legislative Action Complete
  - *SB 419 Termination of additional severance taxes on severance of oil and natural gas*
  - *SB 505 Exempting certain uses of field gas from motor fuel excise taxes*
  - *4323 Relating to reporting of emergency incidents by well and pipeline operators*



## 2016 LEGISLATIVE UPDATE



- Final Legislative Action Not Taken
  - *SB 508 Relating to civil claims for private nuisance*
  - *SB 565 Allowing well pad construction for oil and gas activities*
  - *Pooling, Co-tenancy and Joint Development*
  - *Amendment to Horizontal Well Rules*



# Legal Update

## Select Decisions From W. Va.



## LEGAL UPDATE – RECENT DECISIONS



- *Crowder v. EQT Production Company* (14-C-64) Doddridge Co., WV
  - EQT constructed a multi-well pad without entering into a surface use agreement with the landowner
  - Landowner argued that EQT's reliance on implied rights to develop the mineral estate does not extend to use of the surface to develop other mineral tracts beyond the subject property
  - On Feb. 19, 2016, the Court entered summary judgment in favor of the plaintiffs/landowners and further certified the question to the W. Va. Supreme Court



## LEGAL UPDATE – RECENT DECISIONS



- *American Energy – Marcellus, LLC v. Poling (15-C-34 H) Tyler Co., WV*
  - American Energy sought a partition action against missing, unknown and/or unlocatable defendants who are fractional interest owners to a tract that is subject to an oil and gas lease which is silent on the issue of pooling
  - American Energy sought summary judgment on the issue of whether there is an implied right to pool in West Virginia
  - By order entered on April 15, 2016, the Court entered summary judgment in favor of American Energy



# LEGAL UPDATE – RECENT DECISIONS



- *American Energy – Marcellus, LLC v. Poling* (15-C-34 H) Tyler Co., WV

## Basis for Court's Order:

- The main purpose of the lease is to obtain production quickly and for as long as possible to the mutual advantage of both lessor and lessee
- The parties to a lease are bound to reasonably cooperate to accomplish the main purpose of the lease
- The common law implied right to pool is a necessary corollary to the common law implied covenant to develop and other implied covenants
- Implied right to pool was found to be reasonably necessary and would not unreasonably burden the rights of the defendants as they would benefit from greater production and more royalties



## LEGAL UPDATE – RECENT DECISIONS



- *Private Nuisance Suits*
  - Numerous plaintiffs in proximity to well pads/compressor stations filed suit against operators/contractors alleging activities constituted a private temporary nuisance
  - Plaintiffs do not allege physical injury, contamination or property damage but rather that truck traffic, dust, noise and light associated with oil and gas activities unreasonably interfere with plaintiffs' use and enjoyment of their property
  - Cases referred to the Mass Litigation Panel for resolution and grouped into trial groups based on proximity to the complained of activity





**THANK YOU**