



Infrastructure Fundamentals in Shale Rich Ohio

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**OGA 2014 Market Conditions
Conference**



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Columbus, Ohio



A New and Dynamic Industry...

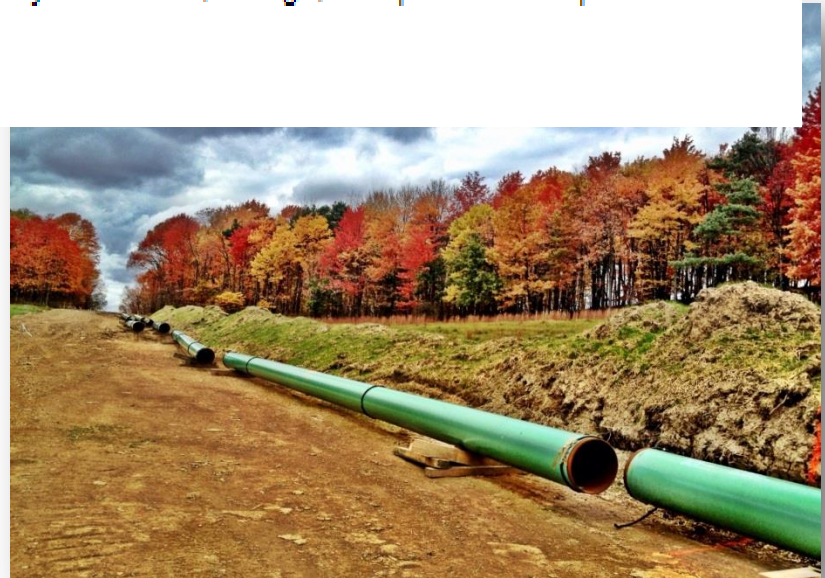
A New Set of Challenges



Shale boom confounds forecasts as U.S. set to pass Russia, Saudi Arabia

By Catherine Ngai NEW YORK (Reuters) - Four years into the shale revolution, the U.S. is on track to pass Russia and Saudi Arabia as the world's largest producer of crude oil, most analysts agree. When that happens and by how much, though, has produced disparate

Reuters 57 mins ago



Where we are headed...

- Northeast Shale Production is shifting gas flows across the Eastern US creating --significant gathering, processing and transmission demand
- Incremental midstream infrastructure of **14 BCF/d** will be needed to meet the growth
- By later 2014 the NE will become a **net exporter** of Natural Gas
- As the gap between NE Production and peak winter demand diminishes, LDC's will rely on **regional production and storage** to meet NE demand
- In the near term significant basis differential between the NE and Gulf regions will support **strong export demand**
- Investment in **NE transmission** will ramp up quickly over the next several years, as Marcellus/Utica production continues to increase
- Over **\$30 Billion** of CapEx is expected to be spent in the NE region by 2025

The Biggest Challenges for the Natural Gas Industry

Ensuring that the Infrastructure is Sufficient to Get the Gas/NGL's to Market

Gathering and Processing Infrastructure Requirements

- Capital of approximately **\$2.6 billion per year** on average which can approach **\$64 billion total over the next 25 years** - 50% NE
- Attracting and keeping talent in the Northeast
- Environmental Awareness
- ROW



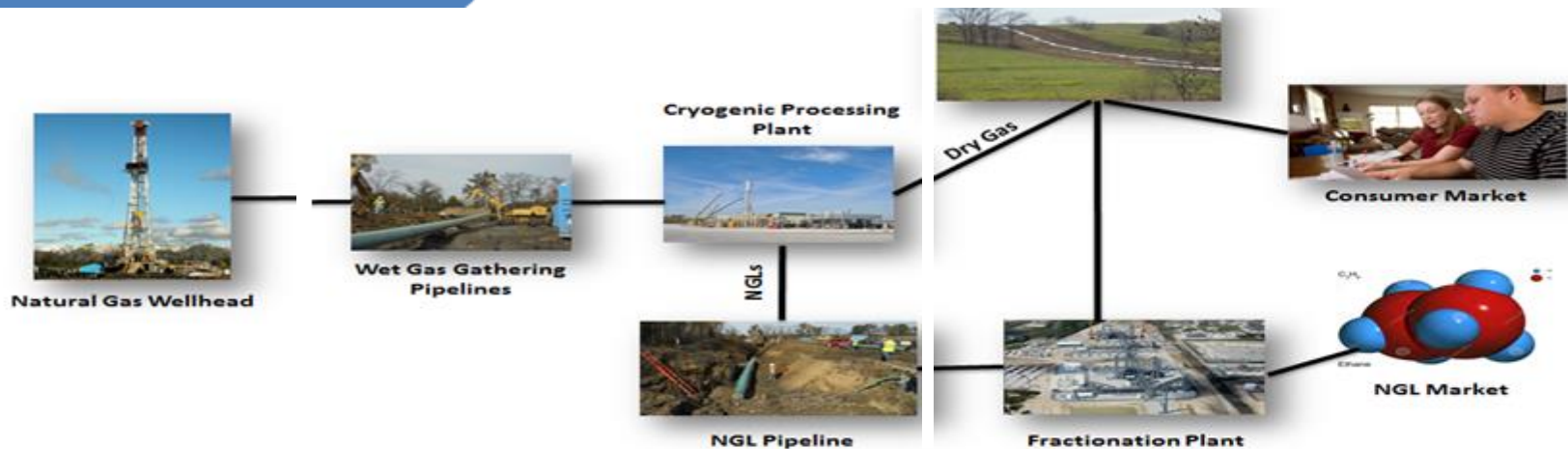
NiSource Midstream will invest \$2 billion into the Marcellus and Utica gathering and processing industry

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NGL Take away Capacity

- By 2016, production of natural gas liquids (NGL) from the Marcellus and Utica Shale Plays is expected to reach at least **650,000 barrels per day (bpd)** – setting and all time production record



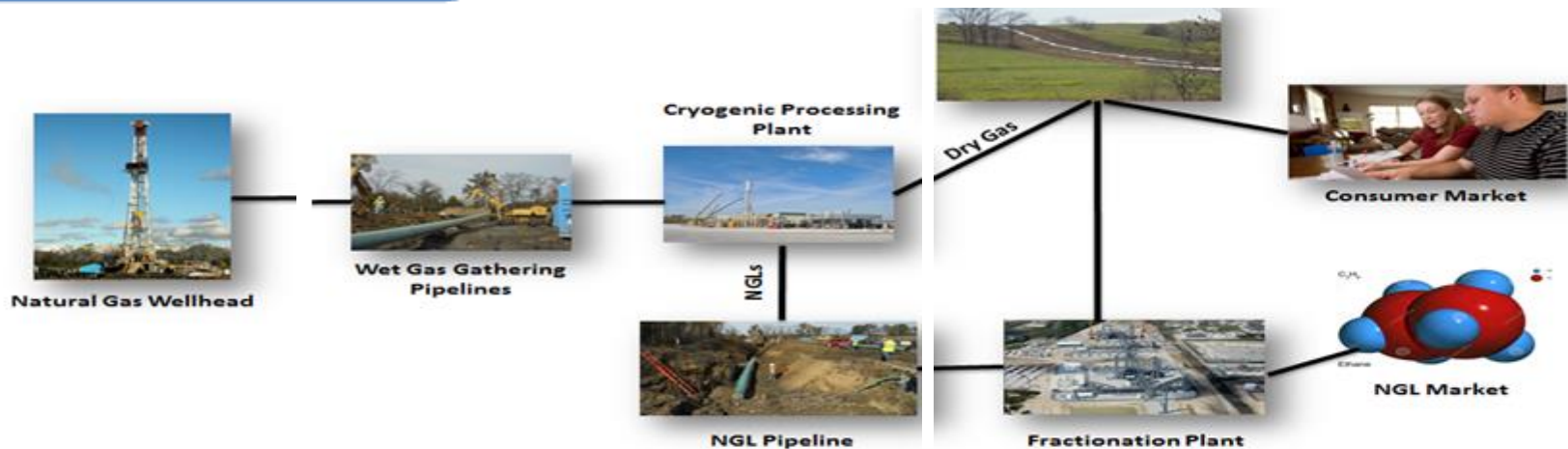
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Residue Pipeline Capacity

- Over **43 Bcfd** of incremental mainline capacity will be needed from 2013 to 2035
- **Pipeline laterals** will be required to connect new power plants, **new gas storage fields** and **new gas processing facilities** to the network of natural gas transmission pipelines



NiSource Midstream will invest \$2 billion into the Marcellus and Utica gathering and processing industry

Market Access and Services for Shale Gas Production

NiSource Midstream – Area of Focus

Leveraging our strategic location and Asset Base

Developing Gathering and Processing Opportunities and Targeted Partnerships

Focused in the Marcellus and emerging Utica areas



Hickory Bend
Gathering and Processing

Ohio Utica Shale

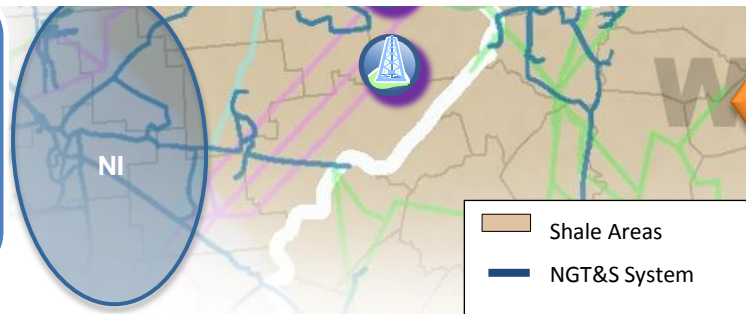
Ohio has approved 1,042 Utica permits with 679 wells drilled

By BOB DOWNING Published: January 15, 2014

The Ohio Department of Natural Resources has approved 1,042 Utica shale permits, as of Jan. 11.

That total includes 679 wells that have been drilled and 270 that are in production.

A total of 44 rigs are working in Ohio.



\$1-1.5 Billion of Investment Potential in the area

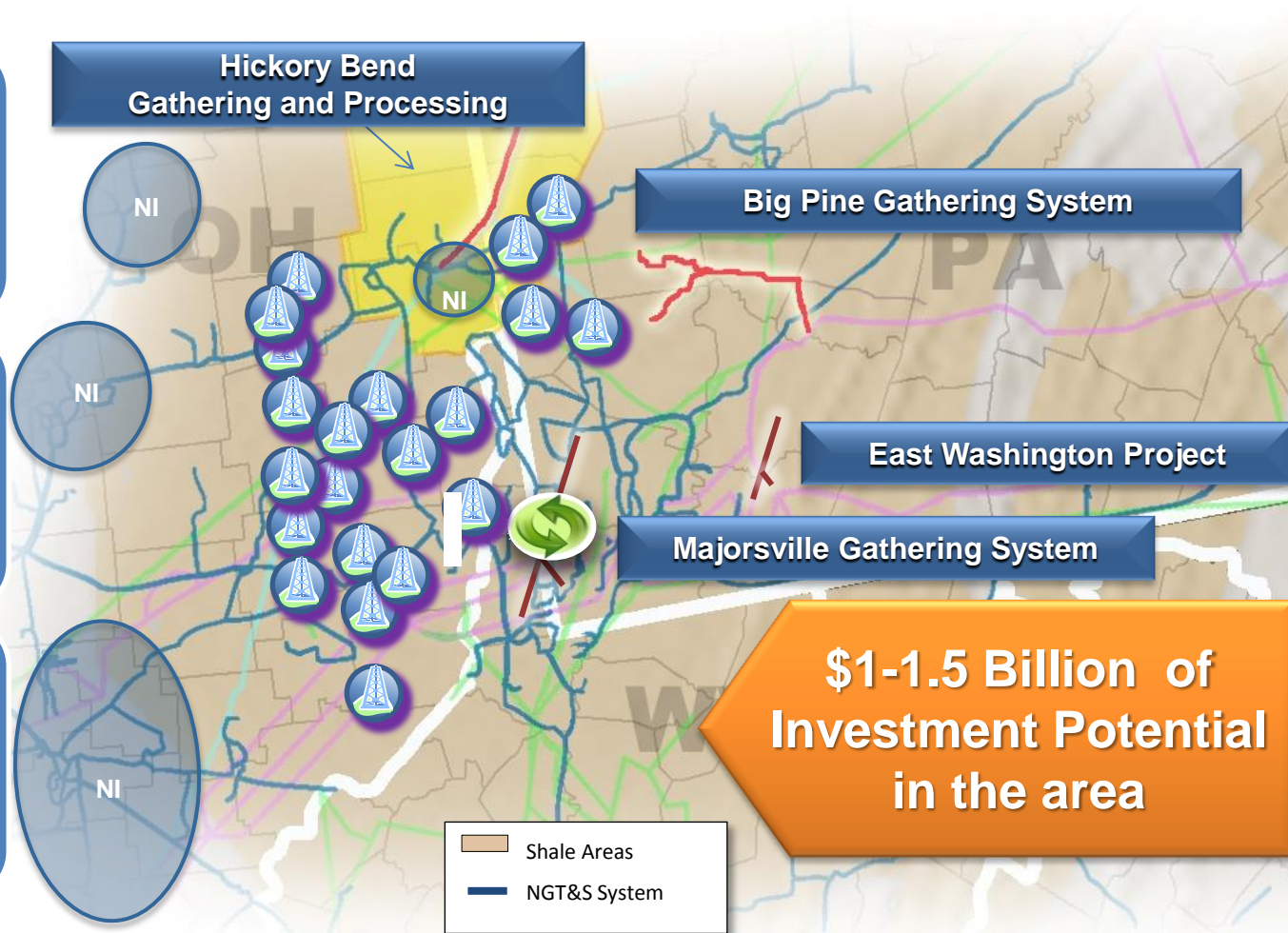
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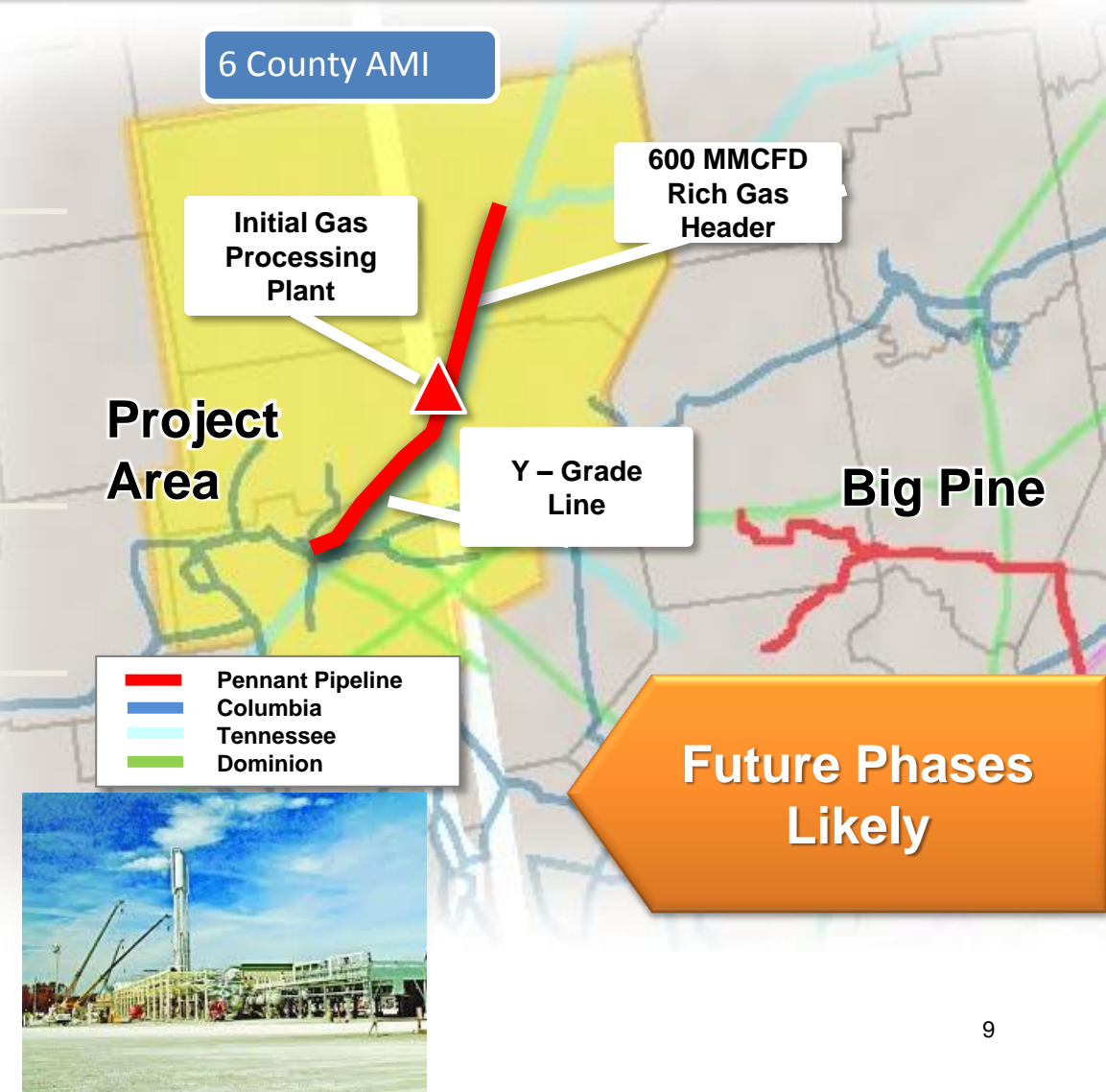
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Providing Market Access for Shale Supplies

Pennant Midstream (50/50 JV NiSource/Hilcorp)

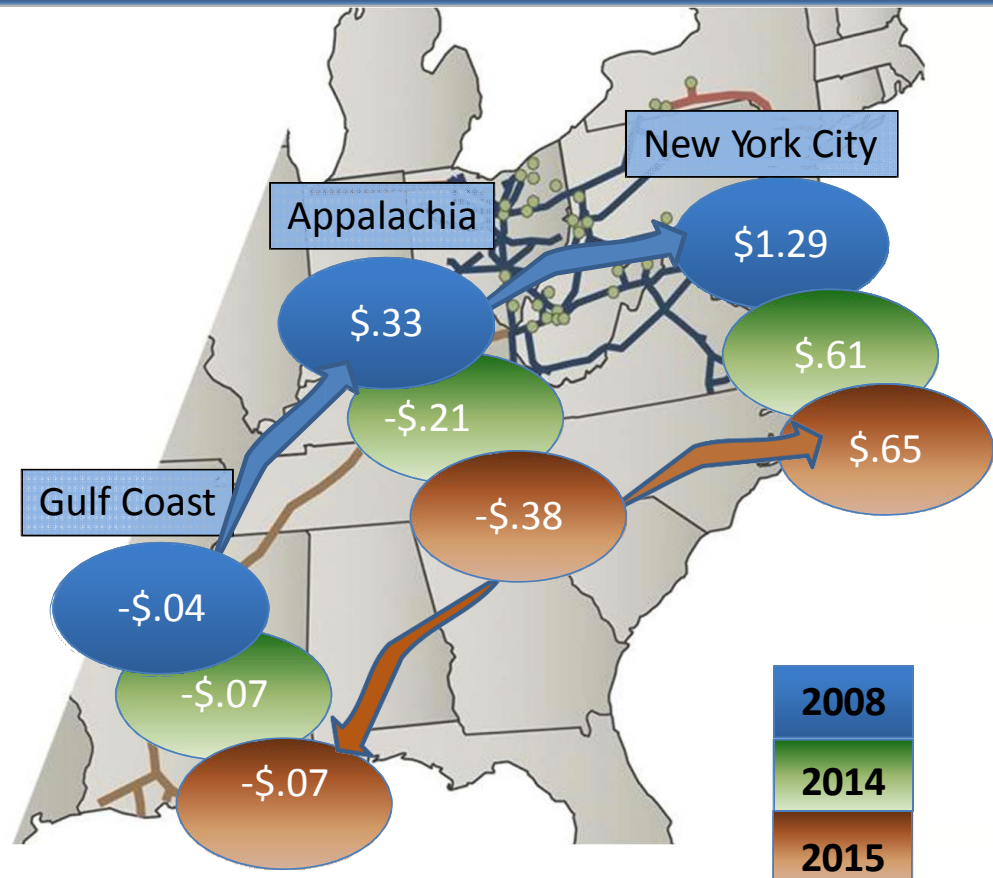
GOAL	Established Utica Franchise JV to Provide Gathering and Processing Services and NGL takeaway
INVESTMENT	50 miles 20 - 24" Gathering Residue to TGP and DEO 200 MMCFD Initial Processing Demand/Capacity Rate Structure 100,000 Acre Dedication
PARTNER	 HARVEST PIPELINE
STATUS	In Execution In-Service Dates: Rich Gas Gathering – Q2 2014 Processing – Q3 2014 Y Grade Line – Q4 2014



Response to a Changing Market

Marcellus Supply Changes Basis and Gas Flows

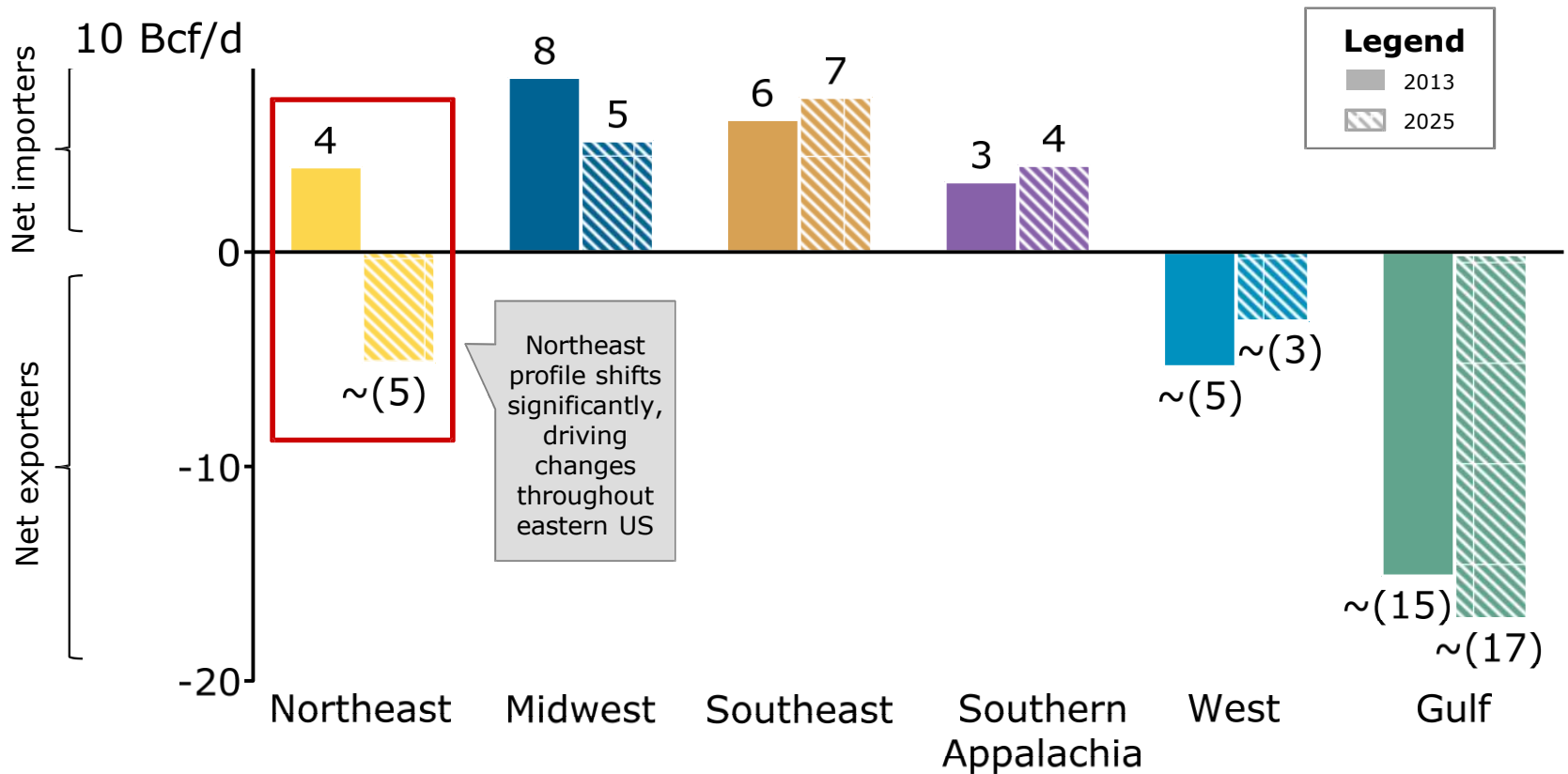
- **Past** – Price Incentivizes Gas to Flow from Gulf Coast to Appalachia and Northeast Markets
- **Current** – Production Growth and New Pipelines Dampen Price Spreads
- **Future** – Increased Production Growth Makes Appalachia Low Cost Supplier; Gas Flows to the Northeast and Gulf Coast



Dramatic Shift in Market Fundamentals

Most significant shift in balance of production and consumption expected within Northeast

NET NATURAL GAS "IMPORTS/EXPORTS" BY REGION



Columbia Pipeline Group – Overview and Strategy

System Overview

Pipeline More than 15,000 miles

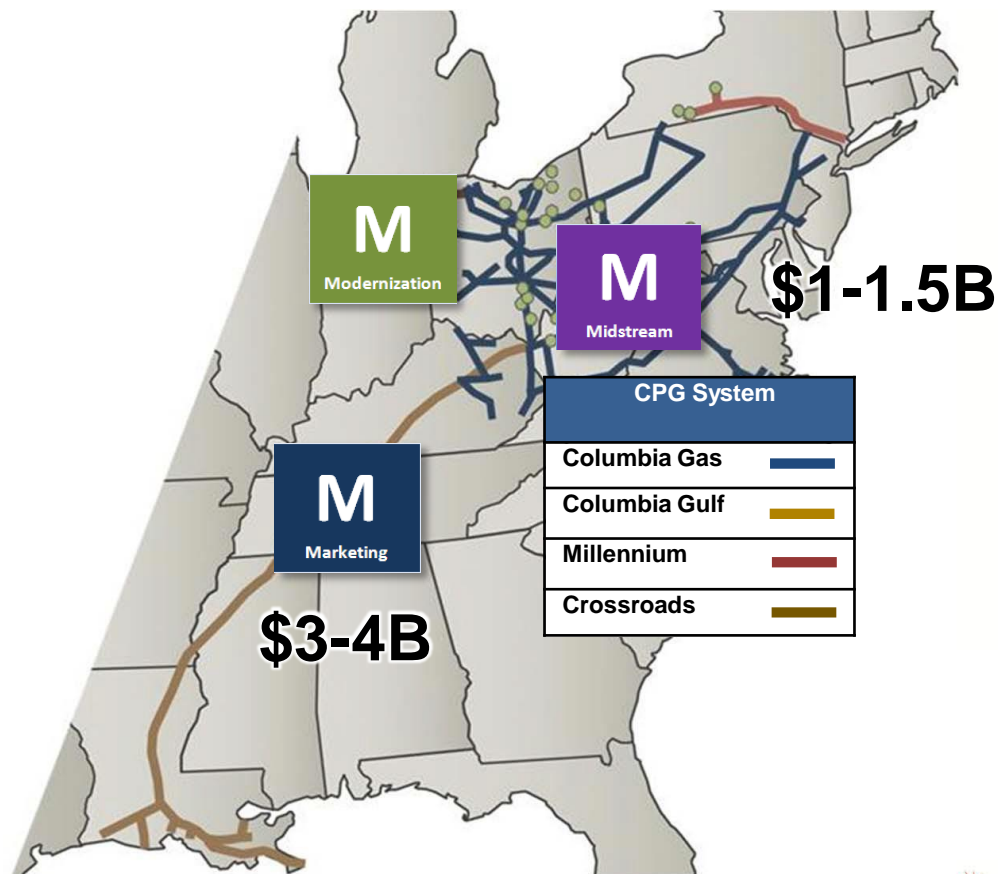
- Columbia Gas: 12,000 miles
- Columbia Gulf: 3,400 miles
- Millennium: 182 miles
- Crossroads: 202 miles
- Deliver approximately 1.3 Tcf per year
 - 5% of U.S. market
 - Serve customers in 16 states
- Peak Day Deliveries: ~8bcf

Storage - +280 BCF

- 38 storage fields in four states
- Peak withdrawal 4.4 bcf/d

Compression - 1.1 Million HP

- 104 stations
 - Gulf: 77 units
 - TCO: 316 units
 - Millennium: 2 units



Established Regional Footprint Serving Stable Markets

NiSource® (NYSE: NI)

Who We Are

Unregulated

Gathering,
Processing and
NGL solutions

**NiSource
Midstream**

Gas Transmission
and Storage

**Columbia Gas
Transmission**SM
A NiSource Company

**Columbia Gulf
Transmission**SM
A NiSource Company

**MILLENNIUM
PIPELINE**
COMPANY, L.L.C.

Regulated

Electric
Generation,
Transmission and
Retail

NIPSCO¹⁹¹²
YEARS
2012

Natural Gas
Distribution

**Columbia Gas[®]
of Pennsylvania**
A NiSource Company

**Columbia Gas[®]
of Ohio**
A NiSource Company

**Columbia Gas[®]
of Maryland**
A NiSource Company

**Columbia Gas[®]
of Kentucky**
A NiSource Company

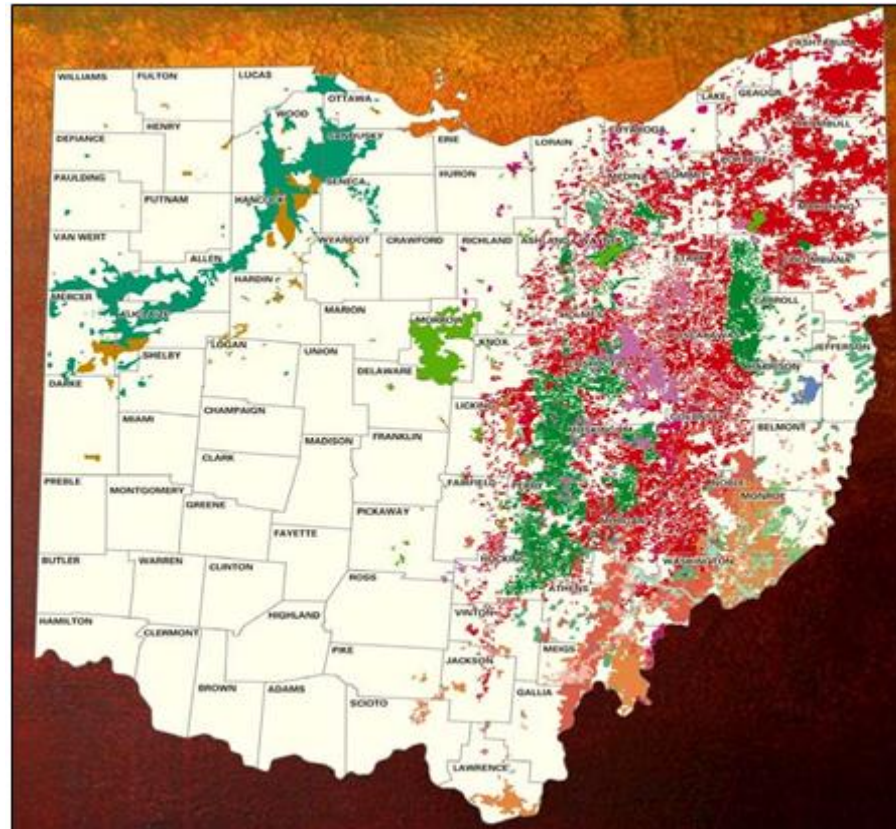
**Columbia Gas[®]
of Virginia**
A NiSource Company

**Columbia Gas[®]
of Massachusetts**
A NiSource Company

**NiSource
Midstream**

NiSource has worked in the Appalachian for over a century

Impact of Ohio Drilling in the Shale Plays



Economic Development

Economic Development Potential

Natural Gas Industry is Investing in Ohio

Projected Spending in Ohio--2014

Lease Bonuses	\$ 34,992,551
Royalties	\$ 45,278,948
Road and Bridge Construction	\$ 426,915,817
Drilling and Completing Wells	\$ 4,722,240,422
Midstream Infrastructure	\$ 1,138,004,105

Total Amount Spent: \$6.3 Billion

Source: The Ohio Shale Coalition

Economic Development Potential

What Industries Will Be Sustained in Ohio in 2014?

Jobs Associated with Field Development and Professional Services	
Industry	Number of Jobs
Support Activities—Oil and Gas Operations	28,153
Construction: Oil and Gas Infrastructure	18,400
Wholesale Trade	2,200
Transportation by Truck	1,600
Architecture, Engineering and Related	1,500
Environmental and Technical Consulting	1,000
Management of Companies	700
Legal Service	800

Total employment supported: 65,680

Source: The Ohio Shale Coalition

Economic Development Potential

Opportunities for Ohio Industries (directly associated with the natural gas industry)

Direct Energy Specific

- Pad construction – location liners, limestone, pits, dikes, roads, etc.
- Water – for drilling and fracturing
- Steel tanks, separators, metering equipment, production equipment, etc.
- Compressors
- Pipelines and Processing Facilities
- Treatment facilities



Indirect Impacts

- Retail Stores, Restaurants, Personal Services - **17 thousand Jobs**
- Legal, Environmental, Business Support, telecommunications, insurance, real estate - **13 thousand jobs**

Source: The Ohio Shale Coalition



Conclusion

Emerging Marcellus/Utica Shale Development

- Major infrastructure Capital and Resources will be required over the 20 years in the US and the Northeast
- The Critical link to success in the emerging Shale Plays is the Midstream Companies coupled with Development of Residue and NGL Solutions
 - Basis differentials will cause gas to travel away from the NE and cause major residue flows which is underway
 - The Northeast will become an exporter of Natural Gas
- The NiSource/Columbia footprint is well positioned to take part in the growing the Marcellus/Utica Basin

