

NEXUS Gas Transmission

Bringing New Supplies to Market

Ohio Manufacturers Association - October 2012









Agenda



Project Introduction

Utica and Marcellus Gas Supply

Michigan and Ontario Markets

Conclusion & Follow up

Overview of NEXUS Gas Transmission





- New pipeline to connect Utica and Marcellus supply in Ohio to U.S. Midwest and Dawn markets
- Strong development partners DTE Energy, Enbridge and Spectra
- 250 mile, large diameter pipeline delivering at least 1 Bcf/d
- In service by November 2016
- Uses existing infrastructure and utility corridors
- Firm path to Ohio, Michigan and Ontario markets
- Interest in firm capacity to anchor the project

NEXUS Gas Transmission - Details



Supply Access

- Central Receipt Point (CRP) in Northeastern Ohio (TBD)
 - Interconnect with Tennessee Gas Pipeline
 - Potentially multiple laterals from processing plants or gathering systems to the CRP, priced separately

Market Access

- Two delivery zones
 - Michigan Zone includes MichCon, Consumers and Vector
 - Ontario Zone includes Tecumseh Storage and the Dawn Hub
- · Access to in-path power and LDC markets in Ohio
- Possible interconnects with pipeline network in Ohio Tennessee, East Ohio, Dominion, TCO, Panhandle, ANR

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Agenda



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Utica is a key target of producer investment in liquids rich plays, and has seen dramatic growth in rig count and drilling activity





- Cumulative wells permitted

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Breakeven Cost of Supply¹ (\$/MMBtu)



1. 2015 breakeven cost of new supply at after-tax 10% IRR Source: Wood Mackenzie, DTE Energy analysis

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Source: DTE Market Intelligence Modeling

Agenda



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North American Gas Supply Changes

Supply changes create challenges & opportunities





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Agenda



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Recap of Key Points

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- Utica has some of the lowest cost gas supply in the country
- Producers are invested heavily in liquids-rich plays, including Utica, where rig count and drilling activity has increased at a fast pace
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NEXUS Gas Transmission can move the abundant low-cost Northeast gas to the large demand centers in Ohio, Michigan, and Ontario

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 - Concept
 - Location
- Identify potential market interest
- Identify next steps
 - Open Season October 15 November 30, 2012
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Spectra's Diverse Portfolio of Assets

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Agenda



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CONFIDENTIAL

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Agenda



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Agenda



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Agenda



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CONFIDENTIAL

Agenda



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Agenda



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Agenda



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Appendix



NEXUS Partners Overview

Additional Market Information

DTE Energy[®]

DTE Energy is an Integrated Energy Company



Strong, Stable and Growing Utilities

~80% of DTE Energy's Earnings



Detroit Edison

- 10th largest U.S. electric utility
- 11,000 GW of power generation capacity (82% coal and nuclear)
- 2.1 million distribution customers in Southeast Michigan

MichCon



- 11th largest U.S. gas utility
- 139 Bcf of working gas storage capacity; purchases 120 – 150 Bcf of gas annually
- 1.2 million distribution customers in Southeast Michigan
- 900 Bcf annual throughput



Complementary Non-Utility Businesses

~20% of DTE Energy's Earnings Gas Storage & Pipelines

- Transports and stores natural gas
- 91 Bcf of gas storage; 538 miles of pipeline
 - Washington 10 Storage Corp. (100%)
 - Vector Pipeline (40%)
 - Millennium Pipeline (26.25%)
 - MichCon Pipeline Company (100%)
- Bluestone Gathering Company (100%)

Unconventional Gas Production

- Western Barnett Shale Production
 - 67,000 net acres; 489 Bcf of reserves
 - 180 gross producing wells

Power & Industrial Projects

- Owns and operates energy assets
 - Industrial / utility solid fuels
 - Utility services and renewable energy

Energy Trading



- Transports gas on more than 60 pipelines
- Asset management and sales to major utilities
- Producer services, including risk management



Spectra) Energy

Spectra's Diverse Portfolio of Assets

2011 Pipeline Throughput: 4.2 Tcf Transmission Pipe: 19,300 mi Storage Capacity: 300+ Bcf Gathering Pipe: 64,800 mi SE Gas Processing Capacity: 3.3 Bcf/d DCP 4Q11 G&P: 6.3 TBtu/d DCP 4Q11 NGLs produced: 406 MBbl/d Distribution Pipe: 39,000 mi Retail Customers: 1.4 million





Enbridge Strategic Position





MichCon, Union and Enbridge Market Overview

NEXUS Gas Transmission

Bringing New Supplies to Market

Ohio Manufacturers Association - October 2012

Agenda

Project Introduction

Utica and Marcellus Gas Supply

Michigan and Ontario Markets

Conclusion & Follow up

Overview of NEXUS Gas Transmission

- New pipeline to connect Utica and Marcellus supply in Ohio to U.S. Midwest and Dawn markets
- Strong development partners DTE Energy, Enbridge and Spectra
- 250 mile, large diameter pipeline delivering at least 1 Bcf/d
- In service by November 2016
- Uses existing infrastructure and utility corridors
- Firm path to Ohio, Michigan and Ontario markets
- Interest in firm capacity to anchor the project

NEXUS Gas Transmission - Details

Supply Access

- Central Receipt Point (CRP) in Northeastern Ohio (TBD)
 - Interconnect with Tennessee Gas Pipeline
 - Potentially multiple laterals from processing plants or gathering systems to the CRP, priced separately

Market Access

- Two delivery zones
 - Michigan Zone includes MichCon, Consumers and Vector
 - Ontario Zone includes Tecumseh Storage and the Dawn Hub
- · Access to in-path power and LDC markets in Ohio
- Possible interconnects with pipeline network in Ohio Tennessee, East Ohio, Dominion, TCO, Panhandle, ANR

Pipeline Details

- 250 miles from CRP to Michigan Delivery Zone,
 - All of this is new build, primarily in existing utility corridors
 - 36", high pressure pipeline (1200# 1440# MAOP)
- 330 miles from CRP to Ontario Delivery Zone,
 - Last 80 miles is primarily expansion of existing facilities
 - No new international river crossing required
- In service as early as November 2016

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Agenda

Project Introduction

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The Northeast US Appalachian Basin, with its Marcellus and Utica Shales, has the largest natural gas resource base of any US shale basin

The Ohio Utica contains dry gas, wet gas and oil windows

A bottoms-up estimate of Utica's resource potential across three windows suggests recoverable reserves of ~91 Tcf gas, ~4.1 B bbl NGLs, and ~5.7 B bbl oil

Total reserves = acreage¹ * wells per acre² * success factor³ * EUR per well⁴

1. By window, from Ohio Geographic Survey, adjusted by population density. Only includes prospective area and excludes federal lands

2. Assumed 160 wells/acre based on current spacing

3. Higher where wells currently in production; lower the further away from existing production

4. Varies based on actual results by county
Chesapeake, Chevron, Range, and other leading natural gas producers have acquired substantial acreage positions in the Ohio Utica





TRANSMIS

Utica is a key target of producer investment in liquids rich plays, and has seen dramatic growth in rig count and drilling activity





- Cumulative wells permitted

Natural gas from the Utica Shale is among the lowest cost supplies available



Breakeven Cost of Supply¹ (\$/MMBtu)



1. 2015 breakeven cost of new supply at after-tax 10% IRR Source: Wood Mackenzie, DTE Energy analysis

Utica natural gas production could reach ~2.8 Bcf/d by 2016 and ~ 4.0 Bcf/d by 2020 in our base case





Source: DTE Market Intelligence Modeling

Agenda



Project Introduction

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Michigan and Ontario are some of the most liquid trading locations in North America



NEXUS Gas Transmission gives producers access to the Michigan and Ontario markets

- Average Daily Demand of over 6 Bcf
- Significant summer demand because of storage injections 660 Bcf Michigan, 276 Bcf Ontario

Liquidity gives producers flow assurance

- Producers desire multiple buyers; Markets desire multiple sellers
- MichCon, Consumers and Dawn Hub are published trading points in Gas Daily and traded on Intercontinental Exchange (ICE)
- Average daily index trades 0.5 Bcfd at MichCon, 0.2 Bcfd at Consumers, 1.1 Bcfd at Dawn Hub
- By comparison, 0.7 Bcfd trades at Dominion South Point and 0.7 Bcfd trades at Henry Hub

Markets in Michigan and Ontario have expressed significant interest in index based supply



North American Gas Supply Changes

Supply changes create challenges & opportunities





Declining Canadian Supplies and TCPL Deliveries is increasing demand for alternate supplies at Dawn



- · Alberta production is declining and demand is increasing
- By 2016, only 3.0 Bcf/d available for export from Alberta



• Flows from Alberta into TCPL have declined significantly, reducing available supplies to the Midwest and Eastern Canada



 TCPL Eastern Zone tolls have increased significantly, making it the most expensive source of supply for Eastern Canada and Northeast US

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
TCPL Eastern Tolls CDN \$/GJ	\$1.15	\$1.19	\$1.19	\$1.07	\$0.94	\$1.03	\$1.40	\$1.19	\$1.64	\$2.24
Source: GazMetro LDC Forum/IGUA Presentation Nov 2011										

Agenda



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NEXUS Gas Transmission links abundant supplies in Utica and Marcellus to nearby large, liquid markets





Recap of Key Points

- The Northeast US has abundant shale resources
- Utica has some of the lowest cost gas supply in the country
- Producers are invested heavily in liquids-rich plays, including Utica, where rig count and drilling activity has increased at a fast pace
- Northeast production is projected to grow substantially in the next few years

NEXUS Gas Transmission can move the abundant low-cost Northeast gas to the large demand centers in Ohio, Michigan, and Ontario

Follow Up



- Feedback on pipeline
 - Concept
 - Location
- Identify potential market interest
- Identify next steps
 - Open Season October 15 November 30, 2012
 - Open Season available at nexusgastransmission.com

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