Changing Regional Midstream and Transportation Developments

> Terry McGill Energy Summit 2009 Energy Market Challenges & Opportunities LSU Center for Energy Studies October 28, 2009





Certain information during this presentation will constitute forwardlooking statements. These will include, but are not necessarily limited to, throughput volumes, financial projections, expansion or acquisition projects, external economics and competitive factors. These statements are based on certain assumptions made by management. Accordingly, actual results may differ materially from current estimates. You are referred to the Enbridge Energy Partners' SEC filings, including the annual Form 10-K, for a more detailed discussion of risk factors.

ENBRIDGE CONTINENTAL FOCUS







- Supply Where are the producers investing and developing?
- Demand Where is the market for the gas?
- Price Where can the producer obtain the best cost margins for production and market price for the gas?

SUPPLY: Top 25 Natural Gas Producing Countries



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Supply: U.S. Lower 48 Gas Production by Type





Lower 48 Gas Production Forecast

Source: PIRA, October, 2009

SUPPLY: U.S. Lower 48 Shale Plays



Shale Gas Plays, Lower 48 States



Source: Energy Information Administration based on data from various published studies Updated: May 28, 2009

A number of new supply areas are emerging including Mid Continent and Gulf Coast





Gas transmission patterns are shifting to accommodate supply shifts.











- U.S. is supply long at rate of 1.7 Bcf/d
- Storage is at record levels.
- Rig count has fallen by 48% since October 2008 but production fell by only 2% in same period. <u>HOWEVER</u>
- Drilling in Haynesville is up 25%.
- Drilling in Marcellus is up 59%.

Producers drill where cost margins allow for best return on investment.

Now the most active Shale Play



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Haynesville has enormous potential





Data source: Bentek Energy, LLC

Low cost gas supply makes gas an attractive energy choice, creating opportunity for gas demand increases.





•Source: Morgan Stanley

Regional Supply Areas could provide economic stimulus to Gulf Coast Industry



Some hope bubbles up in chemical industry

Global conditions are improving, though more slowly in United States

By BRETT CLANTON HOUSTON CHRONICLE

seeing more signs the global recession is lifting, a prospect that could bring relief in a major Texas industry that analysts, has been in free-fall since last year.

But a broader recovery may still be months away, particularly in the U.S., Chemical producers are where the economy is rebounding more slowly than in some international markets, say industry leaders and

robust market in Asia. I see

Houston Chronicle, October 18, 2009

some very slim signs of recovery in Europe. I don't see anything coming in North America," said Peter Huntsman, CEO of specialty chemical maker Huntsman Corp.

Improving economic conditions outside the U.S. are part of the reason why Wall Street predicts major chemical companies this month will report better financial "I continue to see a very results for the third quarter Please see CHEMICAL, Page D4

- Natural Gas provides low cost feedstock.
- Lower U.S. dollar value makes U.S. export goods attractive.
- Gas Supply such as **Haynesville Shale** provides a close source and long term supply to industrial consumers.

Industrial Facility Locations near Mississippi River and Gulf Coast





New midstream infrastructure will be required to develop new supply regions





- 28 North American shale basins
- 56 identified shale plays
- The "Big 6":
 - Horn River
 - Montney
 - Barnett
 - Haynesville
 - Fayetteville
 - Marcellus

New gas transmission assets will have a regional scope such as proposed LaCrosse Pipeline



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LaCrosse Status





Successful Non-binding Open Season Completed Greater than 1 BCF/D of Interest Negotiating Precedent Agreements Refining Scope and Resources Anticipated Construction 2011 In service late 2011 or early 2012

New Supply Areas will need other midstream components based on gas composition.



- Gathering lines to transport production to transmission lines
- Gas treating, processing and dehydration facilities
- Compressor stations



Constraints to New Supply Development



- Federal Climate Change Legislation
 - Waxman-Markey bill fails to include natural gas as a viable energy source despite lower carbon emissions
 - Renders midstream processing, dehydrating and compressor facilities vulnerable to potentially high compliance costs
- Right of Way Issues
 - Unclear eminent domain authority in Pennsylvania
 - Increased landowner resistance to allow pipeline access
- Municipal Jurisdiction Expansion Efforts
 - Noise regulation
 - Pipeline routing approval



- Creation of "America's Natural Gas Alliance"
 - Educates policy makers as to advantages of natural gas as "greener" energy source.
 - Grass roots education and advertising efforts aimed at general public.
- Creation of U.S. House Natural Gas Caucus. U.S. Senator Landrieu along with Sen. Chambliss (GA) announced Senate Natural Gas Caucus last week.
- Improving communication and outreach efforts at the local level with key stakeholders such as elected and appointed officials, community leaders, interested citizens.



QUESTIONS?

