

Regional Energy Infrastructure Initiative: Status Update & Input Opportunity

NEPOOL Participants Committee
March 7, 2014

New England States Committee on Electricity

Overview

- Summary of Regional Challenges and Urgency
- Governors' Commitment to Coordinated Efforts
- Potential Implementation Mechanisms
- Request for Input and Next Steps

Regional Challenges: Reliability & Economic Disparity

Reliability:



- FERC *2012 State of the Market Report* identified New England “as a market particularly at risk for service disruption due to limited pipeline capacity into the region.”
 - ✧ “New England continues to be an area of focus” and constraints will persist. *FERC Staff Winter 2013-14 Energy Market Assessment Report to the Commission, Oct. 2013*
- NERC *2013-2014 Winter Reliability Assessment*: Pipeline infrastructure constraints in New England create potential for gas supply interruption to gas-fired generators and a reliance on “back-up” fuel for reliability.

Regional Challenges: Reliability & Economic Disparity

Reliability:



- “[P]otential gas unavailability threatens the reliability of the electric system due to the limited-capacity pipelines used to transport gas, potential gas supply interruptions, and the ‘just- in-time’ nature of the resource.” *ISO-NE, Strategic Planning Initiative, Addressing Gas Dependence, July 2012.*
- The region’s “dependence on natural gas is poised to increase and our operational options are becoming more limited.” *Gordon Van Welie, Testimony Before the House Energy & Commerce Committee, Subcommittee on Energy, Mar. 19, 2013*
- “New England could face significant reliability issues when natural gas-fired power generators are not able to dispatch as a result of the gas pipeline capacity constraints.” NESCOE Phase III Study.

Planned retirements of non-gas resources increase need for greater access to natural gas supply & no/low carbon resources providing fuel source diversity.

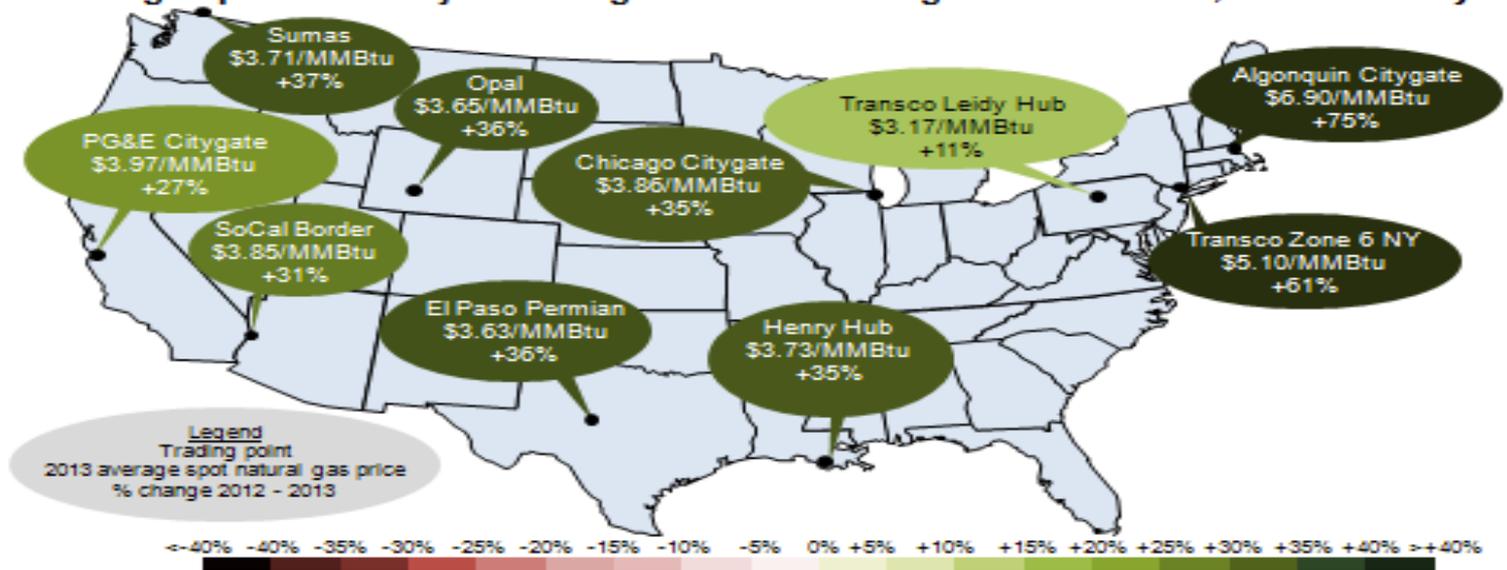


Regional Challenges: Reliability & Economic Disparity

Economic Disparity

- New England has the highest natural gas prices in the U.S.
 - ✧ Spot price average over 2013 showed a basis differential between Algonquin Citygates (\$6.90/MMBtu) and Henry Hub (\$3.73/MMBtu) of **\$3.73/MMBtu**.
 - ✧ Basis differential with PA's Transco Leidy, **\$3.17/MMBtu**, and Transco Zone 6 NY, **\$1.80/MMBtu**.

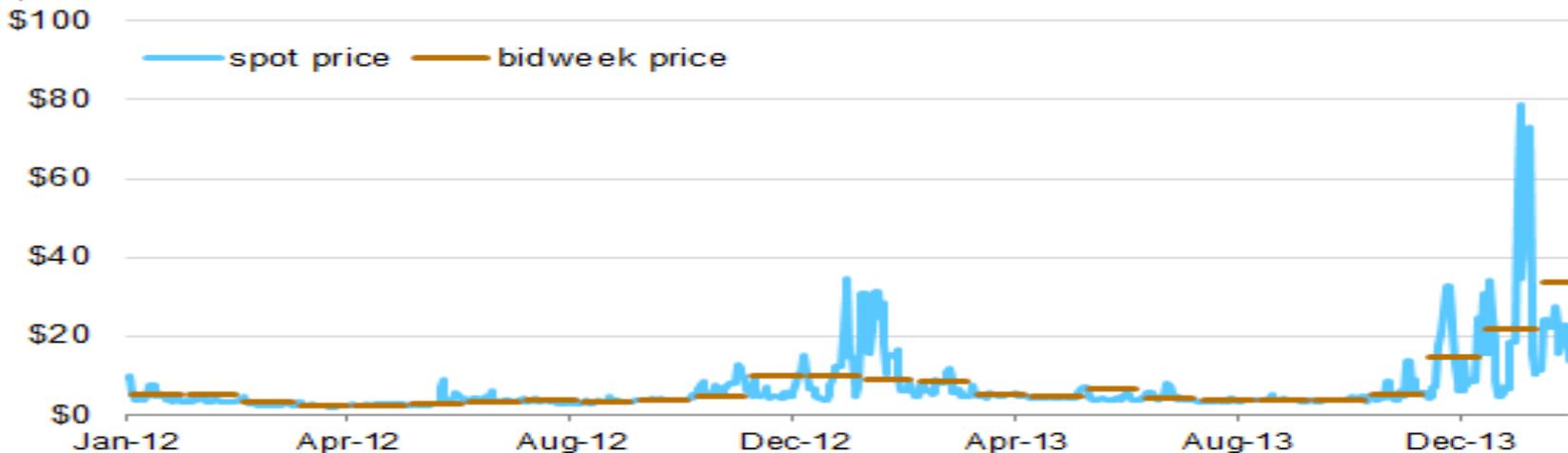
Spot natural gas prices at major trading locations through December 31, 2013 delivery date



Regional Challenges: Reliability & Economic Disparity

- **Price Volatility:** Spot price spikes driven to a high of \$34/MMBtu in 2013, with prices in 2014 averaging \$22.53/MMBtu through 2/18/14 and driven to almost \$80/MMBtu as a high point.
 - EIA, Feb. 7, 2014: “The high winter prices in New England suggest a natural gas delivery system that is stretched significantly.”
 - EIA, Feb. 21, 2014: Record high price since data tracking began in ‘01 and 50% higher than same period in 2013.
 - > \$300 MWh power prices in 2014

Algonquin Citygate natural gas spot and bidweek prices
(January 1, 2012-February 18, 2014)
\$/MMBtu



Source: IntercontinentalExchange Inc.

Note: Spot prices by trade date. Bidweek prices are determined during the final three trading days of the prior month.

The Problem is Escalating

Prices in New England are higher than they were last winter

Average December 2013 gas and electricity prices were up 139% and 126%, respectively, from December 2012 averages

Average January 2014 natural gas prices and RT wholesale electricity prices were up 137% and 94%, respectively, from January 2013 averages

source: ISO-NE

“Unlike New York and New Jersey, the pipelines transporting gas into New England have not expanded in years and are not scheduled to expand until 2016 at the earliest.....The result is an escalating energy crisis in New England. Although the northeast has become the largest natural gas producing region in the United States, New England currently has the nation’s highest natural gas prices. *Forbes, William Pentland, Energy Contributor, December 5, 2013*



Letter from New England U.S. Senate Delegation to DOE

December 20, 2013

“We write to express our concern about the natural gas and energy market challenges facing the New England region and the effect that high energy prices are having on consumers and businesses in our states. . . .”

“The predominance of natural gas for power generation has resulted in our region’s electric supply being one of the cleanest in the nation, but New England’s energy infrastructure has not kept pace and the region’s electric and natural gas systems have become increasingly interdependent. . . . This not only threatens reliability but also results in more volatile natural gas and power prices during periods of high demand.”

“In short, we are deeply concerned about the potential for New Englanders to face yet another winter struggling with regionally high and volatile prices.”

Secretary Moniz, January 7, 2014: “As a New Englander myself, I am acutely aware of the constraints that existing infrastructure to and within the New England region present for the transmission of natural gas to consumers, industrial facilities, and power plants.”

Urgent Need for Action

As long as status quo is maintained:

- New England's power system will be increasingly vulnerable to electric service disruptions,
- Consumers will needlessly pay more for energy than consumers in nearby states and elsewhere, and
- Our region will remain at an unacceptable economic and competitive disadvantage to neighboring states and regions.

After lengthy discussions of possible solutions, no comprehensive long-term solution has emerged to move New England beyond the status quo, which is unsustainable.

Governors' Coordinated Efforts

New England Governors' December 2013 Regional Energy Infrastructure Statement



“Securing the future of the New England economy and environment requires strategic investments in our region’s energy resources and infrastructure. These investments will provide affordable, clean, and reliable energy to power our homes and businesses; make our region more competitive by reducing energy costs; attract more investment to the region; and protect our quality of life and environment. . . . To ensure a reliable, affordable and diverse energy system, we need investments in additional energy efficiency, renewable generation, natural gas pipelines, and electric transmission.

New England ratepayers can benefit if the states collaborate to advance our common goals. The Governors therefore commit to continue to work together, in coordination with ISO-New England and through the New England States Committee on Electricity (NESCOE), to advance a regional energy infrastructure initiative that diversifies our energy supply portfolio while ensuring that the benefits and costs of transmission and pipeline investments are shared appropriately among the New England States. . . .”

NESCOE request to ISO-NE for technical assistance and related support

January 2014

Transmission to Reach No &/or Low Carbon Resources

The New England States...have agreed that one or more requests for proposals will be issued to advance the development of transmission infrastructure that would enable delivery of at least 1200 MW and as much as 3600 MW of clean energy into the New England electric system from no and/or low carbon emissions resources....

The States agree that the costs of transmission infrastructure would be recovered through the ISO-NE tariff or through merchant project(s) in a manner that ensures that the benefits and costs of transmission investments are shared appropriately among the New England States.

Natural Gas Pipeline

The approval by FERC of a tariff for the recovery of the cost of firm natural gas pipeline capacity, in a manner that is effective to achieve the construction of new, or expansion of existing, pipelines....

in the amount of firm pipeline capacity into New England of 1000 mmcf/day above 2013 levels or, 600mmcf/day beyond what has already been announced for the AIM and CT expansion projects...

The New England States preliminarily agree, through NESCOE, that recovery of the net cost of any such procurement of firm pipeline capacity be collected through the Regional Network Services rate shared appropriately among the New England States.

States' natural gas pipeline proposal is conceptual

Welcome input and ideas on its details



Welcome other approaches to satisfy the objectives of

Increasing natural gas supply

Increasing use of no and/or low carbon emissions resource levels



Move to FERC for approval as needed to expeditiously

Resolve reliability risks

Address New England's competitive disadvantages

Develop transmission to reach qualified resources

Proposed Gas Pipeline Funding Mechanism

- ✧ Initially identified target capacity amount of 600 mmcf/day beyond that announced for current projects or 1,000 mmcf/day above 2013 levels
 - States considering stakeholder input, most of which advised the initial target is too low
- ✧ Funding mechanism through the Tariff covering capacity payments to the pipeline and fee for a capacity manager
 - Substitutes for precedent agreement(s)
 - ISO-NE serves as billing/collection agent
- ✧ A capacity manager takes title to the new capacity
 - Process for selecting capacity manager and governance TBD
 - Capacity assignment details under discussion
 - Basic duties include: assign the capacity, remit to ISO-NE any revenues received, and interact with ISO-NE regarding amounts due the pipeline.

Procurement to enable increased use of no and low carbon resources

- ✧ The New England states will seek proposals for transmission and low- or no-emission generation resources issued on behalf of six states for transmission and by or on behalf of some states for generation
- On the expectation that for any selected transmission project, benefits will outweigh costs, transmission costs to be shared by the six states through the ISO tariff
- Costs of associated generation projects to be borne by states that have authority to procure such generation and that elect to pursue such investment
- Some states have authority to procure generation; some others seeking authority

Next Steps

- ✧ States continuing dialogue about proposal details
- ✧ Appreciate NEPOOL feedback today during proposal development process
- ✧ Welcome achievable proposals to address our regional challenges on the same timeframe as states' proposal
 - *Currently*: reviewing input from Gas-Electric Focus Group on incremental pipeline capacity need
 - *Ongoing*: review any stakeholder-advanced input or solution
- ✧ Welcome guidance on NEPOOL process

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