NEW ENGLAND GAS STUDY PROPOSAL DISCUSSION

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This presentation relates to a study proposal available at http://tinyurl.com/KMEnergyDirectStudy

This presentation is available online at http://tinyurl.com/KMEnergyDirectPresentation
More Cheap Natural Gas — Short-term Benefits but Long-term Risks

• The Short-term Benefits:
  – Lower-cost power than coal, nuclear, or renewables
  – Easier for ISO New England to manage power market
  – Potential heating and electricity savings for home owners
  – Lower cost energy to support NE businesses

• The Short-term Downside:
  – Need for new, and in the case of the KM proposal, environmentally damaging infrastructure

• The Risks:
  – Supply Risk: Will it always be cheap and plentiful, or will we eventually be stuck with higher prices, under-utilized infrastructure, over-reliance on a single fuel?
  – Environmental Risk: Reliance on cheap gas undermines long-term goals for global warming and a sustainable energy future.
  – Loss of power generation diversity and efficiency
How did we get here?

- Prevailing view: Very high gas price spikes in recent winters due to gas “shortages”
- Reality: We had enough natural gas capacity via Everett and Canaport terminals if it had been contracted for, but it wasn’t, and thus was not available when needed.
- Why? LNG is much more costly than pipeline gas (when available). Thus no one is willing to sign term contracts, and LNG cannot react quickly to unexpected demand spikes.
The Real Problem is Seasonal Peaks

New England Total Natural Gas Demand

- Billion Cubic Feet per Day

- Industrial
- Residential
- Power Gen.
- Annual Average
- Total Gas Capacity
- Commercial
- Conventional P/L Capacity
- Domestic After AIM and Bridge
New England Gas Supply and Demand
The Market Believes New England Gas Supply Problems Will Continue
How did we get here (2)?

• Prevailing View: We need more gas to replace closed (or closing) power generation plants.

• Reality:
  – They are closing primarily because of the presumed long-term availability of cheap gas.
  – Replacing Brayton Point and Vermont Yankee with new CCGT plants would add only about 0.25 bcf/d to monthly peak demand.
How did we get here (3)? – The Stakeholders

- ISO New England
- Gas Producers
- NESCOE
- Kinder Morgan
- Spectra Energy
- FERC
- Environmentalists
- Pipeline Opposition Groups
- New England Public
The Stakeholders – ISO New England

- System reliability is #1 Concern, with costs secondary
  - More gas = more reliability
  - More pipeline gas = lower costs
  - More gas-fired generation = easier market management
  - More renewables = greater system and management complexity
  - Long-term gas supply contract costs passed on to rate payers as a tariff (NESCOE proposal)
The Stakeholders – Gas Producers

• Now finding more gas in Marcellus and Utica than there is a current market for.

• See huge potential profit opportunities in increasing production and markets – Northeast US, Canada, LNG exports.

• Vested interest in portraying shale gas as a cheap, long-term reliable supply of cleaner energy (than coal and oil) and a potential contributor to U.S. energy independence. Long-term market development depends on it because of long-life infrastructure requirements.

• Potential profits would be threatened by:
  – Accelerated development of renewables, efficiency, etc.
  – Restrictions on exports
  – Restrictions on pipeline development
The Stakeholders - NESCOE

• Formed to give governors a say in ISO NE policies
• Share ISO NE priorities for reliable power supplies
• Interested in long-term economic development
• Some politically motivated concerns on energy costs:
  – Consumer reactions
  – Business competitiveness
• Much more susceptible to political/public reactions than ISO NE
The Stakeholders – NESCOE (2)

• NESCOE between a rock and a hard place
• Reacting to public outcry over the energy price spikes in the last two winters
• Being warned by “experts” that an energy crisis is upon us with the threats of brown outs, cold houses, etc.
• Being told by power companies, gas companies, their respective consultants, Kinder Morgan, and others that a lot of new gas infrastructure, and in particular the Kinder Morgan project, is the most economically effective way to ensure energy reliability in the future
• Being bombarded by various opposition groups (see below) with a variety of objections to the Kinder Morgan proposal
• Inadequate focus on long-term risks of over dependence on natural gas
The Stakeholders – Kinder Morgan

- In business to make a profit.
- Vested interest in portraying Shale gas as a long-term solution to New England (and US) energy issues.
- Have 0.5 bcfd in firm contracts with LDCs for Energy Direct. Greater volume would require long-term power contracts, probably through ISO NE and the electricity tariff.
- Pipeline tariffs set by FERC based on allowed rate of return on KM investment.
- Eyeing New England markets, exports to Canada, and possibly LNG exports.
- Risk of under-utilized capacity generally falls on capacity contract holders.
- Proposed route is easiest and cheapest for KM
The Stakeholders – Spectra Energy

- In business to make a profit.
- KM Competitor.
- Have one project (AIM – 0.3 bcf/d) before FERC for approval and another underway (Atlantic Bridge, 0.1 bcf/d) under study.
- Have proposed increasing capacity by another 1.0 bcf/d in tranches along their existing rights of way. This greater volume would require long-term power contracts, probably through ISO NE and an electricity tariff.
- Pipeline tariffs set by FERC based on allowed rate of return on Spectra investment.
- Eyeing New England markets and exports to Canada.
- Risk of under-utilized capacity generally falls on capacity contract holders, but modular approach to the 1.0 bcf/d added capacity minimizes this risk.
The Stakeholders – FERC

- Huge federal bureaucracy.
- Based on senior staff backgrounds and project approval history, FERC has a bias toward infrastructure projects and cooperation with industry proposals.
- Recent appointee for FERC Chairman, Cheryl A. LaFleur, former VP and acting CEO of National Grid.
- At least she’s from Massachusetts
- The FERC approval process is the only opportunity for opposition groups to formally intervene in FERC decisions.
The Stakeholders – Opposition Groups

• Numerous, but generally divided into four camps (with obvious overlaps):
  – Researchers and economists who believe the shale gas bubble will eventually burst, leaving many scrambling for alternatives and with excessive natural gas infrastructure.
  – Opposition to fossil fuel development and continued reliance on fossil fuel rather than renewables, conservation, and efficiency improvements.
  – Opposition specifically focused on the development and spread of fracking.
  – Opposition to the defacement of New England rural and conservation land from the KM project when better options exist.
Question: Where does this coalition’s opposition fit?

• An effective opposition campaign depends on:
  – Focusing on things we can impact
  – Picking our targets
  – Making the best of the few shots we will get

• In my opinion our best opportunities lie in:
  – Focus on defeating the Northeast Energy Direct Project by raising related concerns focused specifically on the project and its implications.
  – Focus our attention on appeals to NESCOE, state governments, our congressional representatives, and FERC.
  – Concentrate on raising objectives specific to the project and identifying risks associated with its approval. That was the aim of the White Paper.
The White Paper focuses on:

• Recognition that increased natural gas supplies are likely to be part of any balanced solution.
• Estimating that we probably do not need 2.2 bcf/d of new gas infrastructure and suggests we really need only about half that.
• Identifies a range of other elements of a balanced energy future.
• Identifies alternative routes for new gas pipelines that are less disruptive to our environment.
• Points out shortcomings in five major studies being used to justify large new pipeline infrastructure.
The White Paper Status:

• It has been distributed to a number of organizations with permission to reproduce, redistribute, etc.
• Press
  – *Boston Globe* (no response as yet)
  – Groton Line online blog
• State Government
  – Massachusetts Department of Energy Resources, including the group responsible for the “low demand” study Governor Patrick has supported.
• Opposition groups
  – This group
  – Groton Pipeline Working Committee and Groton Selectmen
  – Northeast Energy Efficiency Partnerships
  – Massachusetts Pipeline Awareness Network (MassPLAN)
  – Middlesex County Stop the Pipeline Group
  – Nashoba Conservation Trust
The White Paper: What did I miss?

• Future Price Risk
  – Mentioned as a risk but without sufficient emphasis.
  – There are serious studies out that conclude that the shale gas boom is a bubble with a short life span.

• The Value of Power Generation Diversity
  – New study by IHS Energy concludes that loss of diversity could:
    • Increase US power generation costs by $93 billion a year
    • Double the seasonal volatility if power prices
    • Add 75% to wholesale electricity prices
    • Add 25% to retail electricity prices
    • Reduce household disposable income by $2,100 per year
    • Reduce job growth by 1 million jobs over the next few years
  – The Kinder Morgan proposal pushes us away from valuable power generation diversity
The IHS Study
Thank You