

 **NRPC APPROVED MINUTES**
NRPC ENERGY FACILITIES ADVISORY COMMITTEE MEETING
06/12/15

Members Present:

Tom Young, Town of Litchfield
Elvis Dhima, Town of Hudson
Kat McGhee, Hollis
Steve Wells, Mason
Tim Thompson, Town of Merrimack

Mark Bender, Town of Milford
Kermit Williams, Town of Wilton
Tad Putney, Town of Brookline
Sarah Marchant, City of Nashua

Others Present

Gene Porter, Lower Merrimack River LAC
Nancy Harrington, Town of Merrimack
Eileen Cabanel, Town of Merrimack
Tim Murphy, Southwest RPC
Mark Hamarich, Kinder Morgan
Lucas Meyer, Kinder Morgan
Bob Varney, Normandeau Assoc.
Deb Huffman, Town of Merrimack

Madison Waters, Kinder Morgan
Mike Lennon, Kinder Morgan
Patty Quinn, Kinder Morgan
Michael Licata, Liberty Utilities
Mike Mooiman, Franklin Pierce University
Cynthia Armstrong, Portland Natural Gas
Transmission System

STAFF PRESENT

Tim Roache, Executive Director

Sara Siskavich, GIS Manager

CALL TO ORDER

Williams called the meeting to order at 9:10 am with a welcome and round-the-room introductions. Roache thanked the presenters for their willingness to speak to EFAC, and asked that during the QA period all questions from EFAC would be answered and then the opportunity for questions would be open to the public in attendance. Siskavich pointed out some logistical details for the day and introduced Lucas Meyer from Kinder Morgan as the first speaker, who would be followed by Mike Licata from Liberty Utilities and then there would be opportunity for question and answer between EFAC members, Kinder Morgan, and Liberty.

Presentation: Lucas Meyer, Mark Hamarich of Kinder Morgan

Meyer and Hamarich gave a brief presentation that was focused on project updates. Specifically, they presented a few technical specifications of the compressor station announced last week to be sited in New Ipswich. Also, they discussed the removal of the Worcester lateral from the current proposed project, because they have been unable to obtain binding agreements to justify those facilities. They revisited the upcoming FERC schedule. At present, KM is still in pre-filing which means KM staff can continue to communicate freely with communities, gather info, and tie this info back to the technical details of the project. Hamarich cited the dialogue with the Town of Amherst about specific route adjustments as an example. KM will be filing their formal FERC application in Q4 of calendar year 2015. Bob Varney of Normandeau, a subcontractor working on the project, congratulated the EFAC on the job done so far and provided a few overview details on the NH SEC process which generally follows a parallel course with FERC.

Presentation: Mike Licata, Liberty Utilities

Licata presented a set of approximately 10 slides focused on Liberty Utilities' agreement with Tennessee Gas Pipeline (TGP), the rationale of their involvement in the project, and what it means for their customers. After a brief introduction to Liberty's NH electric and gas distribution companies, Licata presented some customer numbers specific to town's in the NRPC region. Over the past five years the company has been committed to accelerating growth as measured by new customers, and there are three relatively large

commercial or mixed commercial/residential projects in various stages in the NRPC region. The majority of Liberty's supply portfolio is mainly the TGP Concord Lateral that flows from the Dracut Hub; the remainder of the portfolio is a mixture of LNG, propane to serve the Keene area, and a small amount of Portland Natural Gas feeding the Liberty service area in Berlin, NH. The agreement with TGP has Liberty signing up for 50,000 Dth/day of gas to replace that which is sourced from Dracut, and an additional 65,000 Dth/day earmarked for system growth. Licata presented the following benefits of the Northeast Energy Direct Project: lower energy costs for existing customers, improvement in system reliability because it provides an alternate feed into the system and future system growth without having to upsize the Concord Lateral.

Question and Answer

McGhee asked if the growth in customers was associated with the acquisition by Algonquin. Licata replied yes, Algonquin is the current parent company. Williams noted that he's talked to people who have wanted gas service but can't currently sign up because there isn't enough capacity. Licata replied that right now Liberty is not limiting growth, but that for customers beyond 100 ft. of a distribution main, it gets very expensive to install service. Right now Bedford at the Route 101/114 interchange is very active, and as they build out commercial service they are picking up residential customers along the way. Williams asked that to insure adequate supply on the coldest day of the year, does liberty rely on LNG or propane? Licata said yes, and it adds a significant amount of cost. Dhima asked about Liberty's program of expansion, because he believes developers won't necessarily want to pay for system expansion. Licata pointed out that growth is driven organically by interest, but that they have had some very productive relationships with developers who are willing to invest in gas system expansion.

Putney discussed how EFAC is trying to balance impact and benefit, and was trying to compare the Spectra project with NED, both of which cite benefits to gas-powered electric generators. Licata said this is a 20-year project, growth on Liberty won't be immediate, and for excess capacity on system Liberty would "wheel it back around" and sell it to generators.

There was more discussion on the layout of the TGP system, the back feed into Tennessee from the Lynnfield Lateral, and the potential to put a new tie point from NED into Liberty in Merrimack, Milford, or Amherst. Wells asked if our reliance on gas is creating a lack of diversity that is short-sighted. Hamarich and Licata mentioned the NH PUC proceeding to look at wholesale market prices and winter spikes and is there a role for electric rate-payers in solving the gas capacity problem, but the impact NED would have is speculative at this point

Roach asked for clarification on the point of the Mason lateral. Hamarich explained that their customer on the Worcester Lateral didn't sign up, so that portion of the project was eliminated. But in contrast, Kinder Morgan has customers in the Fitchburg area, and they are at full capacity on the southern service route in Mass.

Hamarich went on to explain that NED runs along an existing ROW, and typically high-pressure pipelines are not sited along roadways, but the NED is a transformative project and they are looking at alternatives to see if certain small sections could be co-located along roadways. In general KM is being required to provide rigorous consideration of alternatives.

McGhee asked for clarification on the currently proposed precedent agreements with anchor shippers in New England for up to 500,000 Dth/day because the filings with various Public Utilities Commissions show firm commitments to be split between incremental (new gas), and replacement gas. This leaves the number for new gas needed from the NED project at around 270,000 Dth/day. Hamarich said that to the best of his knowledge, the 500,000 Dth/day of firm capacity was all incremental. He pointed out the FERC

filing has to match the market and will be scaled accordingly (current proposals are for either a 36" pipe with a capacity of 2.2 Bcf/day or a 30" pipe, moving 1.2 Bdc/day).

Williams asked about the NH SEC control over this project. Varney said the process is separate, concurrent, with issues similar in that they consider views of municipalities, RPCs, abutters, and businesses. SEC has scrutiny at the front end of the process, during proceedings, and then during construction. There are permits involved, and if the SEC sees enforcement issues, the state has the ability to step in and address issues. On a past project with PNGTS, the SEC recognized issues that had merit and influenced a change in route. Williams asked if the SEC has the power to stop a project. Varney said yes if there is a violation of a state or federal permit that could be acted on correctively.

Putney asked what the probability is that the NED would be completed. Hamarich said that they see many positive signals; they have been doing their due diligence, commitments, resources, but that ultimately the project depends on the market. If he had to put a number on it, he would say he's at 65% or 70% probability, definitely more likely than less likely.

Presentation: Professor Mike Mooiman, Franklin Pierce University

Professor Mooiman began his presentation with an urging to think about the Big Picture beyond the region and beyond New Hampshire. He described the energy system as a network and provided a brief overview of trends in various energy sectors, the difference in power (which is capacity) versus energy, the fact that our electric generation is vulnerable because plants are aging and many are slated for retirement. He explained factors affecting the costs of electric generation, the challenge of generators not entering into long-term contracts and being more exposed to the volatility of gas pricing, and if New England does not do energy projects, his opinion is that profound effects will occur on default electric rates. There is a natural gas crunch that will be solved through the intersection of factors such as installation of new pipelines, regulatory changes, market changes, and an influx of Canadian hydro. Other factors such as improvements in energy efficiency and renewables are important but relatively minor in terms of magnitude of immediate impact. Energy projects must be weighted in terms of the tradeoffs between benefits and impacts.

Williams asked for clarification of the term "rejected energy." Mooiman gave examples such as waste heat and automobile exhaust.

Putney asked if Mooiman has seen in his research any permanent negative effects on property values. Mooiman said he could only offer personal anecdotes that suggest that property values are not impacted long-term.

McGhee asked that by moving towards a non-diversified portfolio to take advantage of low cost energy options, are we in fact boxing ourselves out of options in the long-term. Mooiman answered that he advocates for a diverse portfolio of energy options, and points out that in NH heat will stay diversified for the future because the availability of gas distribution is limited.

Presentation: Cynthia Armstrong, Portland Natural Gas Transmission System

Cynthia Armstrong presented an overview of the PNGTS: the system layout, ownership, markets, supply, and storage areas, and electric generation on or near PNGTS. She then described the Continent-to-Coast (C2C) project which would offer 100,000 Dth/day of additional volume on the system without the construction or replacement of facilities. C2C has an in-service date of November 2017. PNGTS' next expansion project would have a planned in-service start date in 2018 and would target LDCs and EDC markets and offer 500,000+ Dth/day capacity in increments of 100,000 through the strategic placement of new compression system sites. She also described the joint facilities between PNGTS and Maritimes and Northeast (MNE), which is one physical pipe but two commercially-separate pipelines, each with their own

capacity. The joint facilities and associated coordination between the two pipeline operators were mandated by the FERC during the filing process in order to minimize disruption and impact along a stretch between Dracut MA and Westbrook, ME.

Williams asked about the feasibility of reversing the flow of the MNE pipeline, and if this is feasible. Armstrong said that pipelines build to contract, and as a gas consumer the direction from which gas flows is not really important. Hamarich added that NED would be an “open access” project, meaning customers who want delivery can come to them. Mooiman wanted to address the concern that there is a pervasive concern that NED gas will be shipped across the Northeast, only to be liquefied and sold overseas, but this would be a very expensive plan in that LNG is typically compressed closer to its source.

There was more discussion about the capacities of PNGTS and NED. Armstrong confirmed that her company could supply an additional 500,000 Dth/day simply by adding more compression stations. The maximum-allowable operating pressure (MAOP) would not increase, but there would be more gas. Hamarich supplied some specifications on the current TGP facilities coming into Dracut. The operating pressure is 750 psi; the current max with NED is 1460. TGP would do a pressure reduction to 750, then to feed other areas (e.g. Lynnfield) they would add compression.

Putney asked if PNGTS and TGP are competitors. Armstrong said yes, but their geographic footprints and facilities are interconnected. Wells followed up and asked, isn't it cheaper the shorter the gas has to go? Armstrong clarified that in the major pipeline proposals each system would need to make investments/improvements.

McGhee asked if PNGTS is looking for ratepayer-supported financing. Armstrong said that all interstate pipelines need contractual commitments and cannot act outside of the public interest. The formation of a quasi-regulatory body such as that discussed at the New England Governor's Regional Initiative would need to figure out this question.

There was some additional discussion about the process by which FERC considers multiple pipeline proposals and the role of firm contracts as a mechanism to determine need. Hamarich said that if the commitments are there, Kinder will file.

The meeting ended at 12:27pm. There will be no meeting on 6/19/2015.