MMWEC
MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY
Public Energy Partners

May 15, 2014

VIA Email and US Mail

Ms. Heather Hunt
Executive Director
New England States Committee on Electricity
655 Longmeadow Street
Longmeadow, MA 01106
HeatherHunt@nescoe.com

RE: A Consumer Model for Natural Gas Infrastructure Development

Dear Ms. Hunt,

I am writing to convey a proposal by the Massachusetts Municipal Wholesale Electric Company (MMWEC) that provides the framework for *A Consumer Model for Natural Gas Infrastructure Development* in New England. This proposal is in part a response to NESCOE's request for comment on the "EDC proposal" submitted by several of New England's investor-owned utilities.

MMWEC is proposing to address the electric system reliability and economic issues caused by insufficient natural gas infrastructure using a consumer-oriented business model that focuses on cost containment and public benefit. This business model is relatively new in the development of natural gas pipelines, but it has proven its value in the development of other energy infrastructure facilities in the United States.

A historic shift in energy production and use in the United States has created this crisis in New England, and there is an equally historic opportunity to improve the model for gas pipeline development to achieve greater economy in the use of our natural resources. This is an option that needs to be considered because of the tremendous difference in cost to consumers, as compared to the EDC proposal.

Background

MMWEC is a non-profit, public corporation and political subdivision of the Commonwealth of Massachusetts, empowered by statute to issue tax-exempt revenue bonds to finance various energy facilities, including natural gas pipelines. MMWEC is a public power Joint Action Agency and provides a wide range of energy services to the state's consumer-owned, non-profit municipal electric utilities. In this capacity, since the late 1970s, MMWEC has issued more than $4.7 billion in both taxable and tax-

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exempt bonds to finance and refinance its 735-megawatt ownership in several New England electric generating facilities. MMWEC also constructed, owns, maintains and operates a portion of the natural gas pipeline serving its Stony Brook Energy Center.

MMWEC provides numerous wholesale power market services to its Member and Project Participant utilities, including interaction with ISO New England (ISO-NE) on many levels, from representation on ISO-NE committees and the scheduling of Member resources in the marketplace to reconciliation of ISO-NE interchange bills.

Since its creation in 1969 and its establishment as a public corporation in 1976, MMWEC has been a successful champion of consumer interests in the development of New England's electricity marketplace, consistent with its mission of delivering competitively priced, reliable electricity to Massachusetts municipal utilities.

Natural Gas Infrastructure Needs

New England's increasing reliance on natural gas for electric generation has been an issue for several years. For various reasons, this issue reached crisis proportions during the past two winters, jeopardizing electric system reliability and creating severe economic disparities between New England and other regions of the country. Efforts to address these conditions have been deliberated without resolution within ISO-NE, the New England Gas-Electric Focus Group and at the Federal Energy Regulatory Commission. In fact, these operational and economic threats to the region, which according to NESCOE have become "acute and unsustainable", are expected to worsen until additional natural gas pipeline capacity is in place.

The cost of insufficient pipeline capacity to New England consumers – measured only by higher electric rates – is estimated by NESCOE to be approximately $2 billion during the winter of 2013-14 alone. This surcharge on consumers, which will continue to increase absent new pipeline capacity, is unrecoverable and does not contribute to a solution. We believe the level of this gas deficiency surcharge already has eclipsed the cost of the pipeline capacity needed to cure the deficiency. This situation truly is untenable for consumers and the region as a whole, as is the absence of a market-based solution.

Current markets, both gas and electric, have remained focused on the idea that any solution involves natural gas electric generators signing firm, 24/7 natural gas contracts, a construct that makes little economic sense, given the highly variable dispatch of these generators, creating uncertain fuel supply requirements.

The inability to produce a market-based solution stems in part from the unprecedented and historic shift to reliance on natural gas for electric generation, which represents a convergence of the natural gas and electric industries at some levels. Separately, these industries and markets have been unable to accommodate the natural gas needs of electric generators. A stronger bridge between the two industries is necessary, a bridge that can be built upon the New England governors' proposal to finance new gas pipeline infrastructure with the support of an ISO-NE electric tariff charge.

MMWEC believes the Governors' proposal represents the most promising initiative to address the region's natural gas pipeline deficit. The Governors' proposal recognizes that the existing business model for financing gas pipelines must change, and it presents a unique opportunity to enhance the public benefit associated with energy infrastructure development, serving an essential public purpose.

Unlike the MMWEC model, the EDC proposal does little to change the fundamentals of the existing model for gas pipeline development, other than to tap electric consumers as a new revenue source. MMWEC's Consumer Model is commensurate with the magnitude of change that is transforming New

England's energy marketplace. It also captures the full potential benefit of the Governors' innovative proposal, leveraging the new source of revenue to achieve additional public good.

Benefits of Public Financing and Ownership

Tax-exempt financing and public ownership of new gas pipeline facilities will produce significant savings for consumers, as opposed to corporate financing and ownership by for-profit entities, which must earn a higher rate of return on investment to pay stockholder dividends.

Public ownership and financing of energy facilities is not a new concept in the United States. While the use of this model for energy facility development is limited in New England and not generally used in relation to natural gas pipeline facilities, its use in other areas of the country for energy infrastructure development has been very successful and beneficial to consumers.

The need for gas pipeline facilities in New England, coupled with the Governors' innovative proposal to finance such facilities, presents what is likely a one-time opportunity to create an energy infrastructure financing mechanism that meets infrastructure needs AND minimizes consumer costs.

A large amount of debt will need to be issued to finance the proposed additions to New England's natural gas infrastructure. The interest cost of that debt will be significantly less if it is issued by a non-profit, tax-exempt entity such as MMWEC, versus a for-profit entity.

For example, tax-exempt debt generally issues with an interest cost that is approximately 3% lower than the interest cost of corporate debt issued by a for-profit entity for the same general purpose. Over the 30-year life of a $1.25 billion bond issue, that 3% difference in interest cost would mean a savings of half a billion dollars in total debt service costs for the tax-exempt entity, and ultimately for New England consumers.

The MMWEC model described below contemplates a tax-exempt debt issue to finance pipeline facilities. However, even if issuance of taxable debt is required, the cost of issuance for a public entity, particularly an entity with the credit standing of MMWEC, would be significantly less than the issuance costs for private, investor-owned entities. With 38 years of public financing experience, MMWEC is a known and respected entity in the financial community. All three of the major credit rating agencies reaffirmed MMWEC's high, investment-grade credit ratings in 2013.

If the fixed costs of new pipeline capacity are to be allocated to all New England electricity consumers via an ISO-NE electric tariff – essentially "socialized" to all consumers throughout New England – it makes economic and political sense that ownership of the facilities should rest with a non-profit, public entity that can minimize costs for those who ultimately pay the bill.

The alternative, as proposed by the investor-owned EDCs, will result in significantly higher costs for consumers, who would foot the bill for stockholder dividends in addition to paying pipeline costs. While the EDC proposal does not disclose a required level of return on investment, the proposal is contingent upon and "subject to the necessary cost recovery assurances and remuneration acceptable to them." The requirement for a certain undisclosed level of compensation is restated no less than five times in the four-page EDC proposal.

While we are unsure what would constitute "remuneration acceptable to them" with respect to an investment in gas pipeline facilities, we know that the same companies are arguing before the FERC to retain a return of up to 13% on their investments in electric transmission facilities. Part of their argument, in the face of a preliminary FERC decision to reduce the base rate of return on transmission to 9.7%, hinges on the purported "risks" associated with transmission development. We also are unsure of the level of risk the EDCs will associate with gas pipeline development.

If the rate of return on pipeline investment required by the EDC proposal approaches 13%, the difference between EDC and public entity financing costs could be near twice the amount noted above - approaching $1 billion in higher energy costs - creating a disincentive for economic development.

The Consumer Model

The beauty of MMWEC's proposed Consumer Model for pipeline development is in its simplicity and, more importantly, in the benefits it provides to consumers. Again, this model is not a new or untried method of financing energy infrastructure, although its use in New England is limited.

First, the MMWEC proposal will lead to construction of new pipeline facilities, alleviating the pipeline constraints that have resulted in electric system reliability and economic disparity for New England consumers.

Second, the streamlined MMWEC proposal eliminates unnecessary layers of management and reduces costs for consumers. As such, the MMWEC model is structured to best serve electric customers and minimize costs, including but not limited to transaction costs.

The simplicity of the MMWEC model is evident in the attached flow chart, which shows MMWEC as the owner and source of credit required to finance pipeline infrastructure development. Bonds to finance pipeline development would be issued by MMWEC. Ownership of the pipeline could be with MMWEC or an affiliate of MMWEC.

An affiliate of MMWEC would be created to manage the pipeline facilities, including operation, maintenance and administration of financial affairs. A contract between the affiliate and MMWEC would provide security for the bonds, with the affiliate unconditionally obligated to pay all of the MMWEC debt service costs associated with the pipeline.

The affiliate's single source of revenue would be the ISO-NE tariff, which would pay all of the affiliate's costs, including pipeline operation, maintenance and debt service costs. Revenues from pipeline operations, identified as "capacity revenue" in the flow chart, would flow to ISO-NE to offset tariff charges.

Service obligations of the affiliate would be executed directly by employees of the affiliate or by contract. For example, pipeline operation and maintenance services could be via contract with an existing pipeline company, particularly if the new pipeline capacity is part of a larger pipeline that would be jointly owned by MMWEC and a pipeline company. Capacity management services would be via contract with a pipeline company or another entity. Tariff administration services would be provided by employees of the affiliate or by contract with the MMWEC affiliate.

It is anticipated that the new pipeline will be closer to full utilization during peak demand periods, leaving certain amounts of new pipeline capacity unused during off-peak periods. This will result in heavier reliance on tariff revenue during the early years of pipeline operation. However, pipeline revenues will increase and tariff charges will diminish as the region grows into the new pipeline capacity.

In other words, the gap between pipeline revenues and costs will diminish over time, which will reduce reliance on the tariff to pay pipeline costs. Ultimately, a tariff charge is likely to become unnecessary when the related debt is retired.

Importantly, we believe this model can be implemented within the framework of MMWEC's existing enabling legislation.

MMWEC also brings to the table a high level of accountability and transparency in its business affairs. As a 38-year public corporation and political subdivision of the Commonwealth, MMWEC's business practices are infused with accountability and transparency, which are important considerations given the level of consumer investment contemplated.

An example of energy infrastructure financing similar to what MMWEC is proposing can be found in the Lower Colorado River Authority (LCRA), a public entity that has issued tax-exempt debt to finance more than 5,000 miles of transmission lines and 180 substations in Texas. An LCRA affiliate, the LCRA Transmission Services Corporation (TSC), owns and operates the related transmission facilities.

Revenues to pay debt service come to LCRA via an agreement with the TSC, which collects its costs for providing transmission service from distribution companies obligated to pay their load-based share of the state's transmission facility costs. The TSC's costs include transmission operations, maintenance and debt service expenses.

The TSC has no employees but contracts with LCRA, which provides operations, maintenance and other services related to the transmission facilities.

Like MMWEC, LCRA is a non-profit, public corporation and political subdivision of the State of Texas, created through an Act of the state legislature. Also like MMWEC, it has no taxing authority and operates solely on utility revenues and fees generated from supplying energy and other services.

While public entity ownership and financing of natural gas infrastructure and capacity currently is rare in the United States, it has occurred in Alaska and is authorized in a law recently enacted in Maine. Given the inability of the traditional business model for gas pipeline development to accommodate the nation's growing reliance on natural gas for electric generation, it would not be surprising to see a broader trend toward public ownership and financing of new pipeline facilities.

Market Considerations

MMWEC believes that its proposal would, in the most cost-effective manner for consumers, result in the construction of natural gas pipeline capacity needed to address the electric system reliability and severe economic issues that are resulting from the lack of adequate pipeline capacity. Relief of pipeline constraints during peak demand periods will:

- Reduce the price of natural gas in New England to a level comparable to neighboring regions, essentially eliminating the region's current "basis differential";
- Enable generators to procure sufficient supplies of natural gas at prices that enable them to meet their capacity commitments without suffering undue economic harm;
- Eliminate the need for ISO-NE's proposed "Pay for Performance" Forward Capacity Market program, and its anticipated increase in capacity costs, as the urgency of generator performance issues this proposal purports to address will be diminished significantly; and
- Minimize the energy-based economic disparities between New England and neighboring regions, providing consumers with additional disposable income and supporting economic development.

In responding to the NESCOE request for comment regarding the impacts of the Governors' proposal on competitive power markets, MMWEC suggests that construction of sufficient pipeline capacity will bring an end to the current crisis-mode of market operation and development, which will open the door to more reasonable and well-considered market improvements.

Overall, we would expect the competitive condition of the marketplace to improve, as it will be less burdened by the administrative interventions that have characterized market operations during this period of crisis.

Massachusetts Municipal Wholesale Electric Company (MMWEC), 327 Moody St., Ludlow, MA 01056

Other Considerations

We understand the timeframe for development of new pipeline capacity is tight. As stated, we believe this proposal can be implemented within MMWEC's existing statutory framework, alleviating the need for new legislation and thereby accommodating the NESCOE schedule for pipeline development.

This proposal is subject to an ongoing due diligence process, including legal and regulatory review, as well as approval by required entities, including the MMWEC Board of Directors.

We look forward to additional discussions with you and welcome your suggestions for minimizing costs and maximizing consumer benefits as we apply the Governors' groundbreaking proposal to the development of New England's energy infrastructure.

Sincerely,

Ronald C. DeCurzio, Chief Executive Officer
Massachusetts Municipal Wholesale Electric Company (MMWEC)

Consumer Model