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April 2, 2015

Mark Marini, Secretary
Department of Public Utilities
One South Station, 5th Floor
Boston, MA 02110

RE: Request to Open an Investigation into New, Incremental Natural Gas Delivery Capacity for Thermal Load and Electric Generation

Dear Secretary Marini:

The Department of Energy Resources (“DOER”) respectfully requests the Department of Public Utilities (“Department”) open an investigation into the means by which new gas delivery capacity may be added to the New England market, including actions to be taken by the electric distribution companies (“EDCs”).

There is a widespread belief among many industry stakeholders that the high cost of electricity in the winter market in Massachusetts has been caused by constrained natural gas delivery capacity. New means are needed to reduce natural gas delivery congestion and to make sufficient natural gas capacity available for electricity generation during these times of peak demand. Specific questions that need to be addressed include whether: (1) there is an innovative mechanism for electric distribution companies (“EDCs”) or other suitable parties to secure new, incremental gas delivery capacity into the region to the benefit of electric ratepayers; (2) review for cost-recovery of EDC contracts for natural gas capacity by the Department under G.L. c. 164, §94A (“§94A”) is appropriate; and, (3) the standard of review the Department would apply to contracts submitted for approval under that section should be different.

I. Background

DOER is the Massachusetts executive agency responsible for establishing and implementing the Commonwealth's energy policies and programs aimed at ensuring the adequacy, security, diversity, and cost-effectiveness of the Commonwealth's energy supply within the context of creating a cleaner energy future (generally, M.G.L. c. 25A, § 6). In this role, DOER has implemented nation-leading programs aimed at reducing the demand on the electric system and complying with renewable energy goals. Despite these successes, DOER recognizes the challenges for system reliability and ratepayer costs associated with electricity generation, which may be alleviated, in part, with new, incremental gas delivery capacity in the region. While it is not clear how much capacity may be needed to address these issues, the need for an incremental amount of new gas capacity for thermal load and electric generation has become increasingly apparent in the New England region. Indeed, several recent studies have shown the need for additional gas delivery capacity and the corresponding reduction in New England gas price basis differential.¹

A comparison of natural gas wholesale prices in the New England and PJM Interconnection (“PJM”)² markets shows that the same volume of gas used by New England generators during 2014 would have cost over \$600,000,000³ less in PJM due to lower gas prices. Homeowners, businesses, manufacturers, Commonwealth offices and municipalities are bearing the cost of these gas constraint-driven high prices and without added capacity this will become a common occurrence in future years.

This winter, the region benefitted from a mild January but experienced significant wholesale spot price increases during the cold, snowy February. The ISO New England (“ISO NE”) winter reliability program⁴, coupled with low worldwide oil prices and the availability of a short supply of LNG, succeeded in mitigating some gas capacity deficiency for the winter of 2014-2015. Unfortunately, this increased dependence on coal-fired and oil-fired generation units increases Massachusetts’ green house gas emissions, in conflict with the requirements of the Global Warming Solutions Act. Further, these mitigating factors are neither a guarantee in future winters nor a long-term solution for the issues facing the region.

The Commonwealth has made great strides in reducing electric load through energy

¹ See e.g., *Massachusetts Low Gas Demand Analysis*, Synapse Energy Economics, Inc., 2015, available at: <http://synapse-energy.com/sites/default/files/Massachusetts%20Low%20Demand%20Final%20Report.pdf>; *Integrated Resource Plan for Connecticut*, 2014, available at: http://www.ct.gov/deep/lib/deep/energy/irp/2014_irp_draft.pdf; *Eastern Interconnection Planning Collaborative, Gas-Electric System Interface Study Task 2 Report* (September DRAFT), 2014, available at http://www.eiponline.com/Gas-Electric_Documents.html; *Maine PUC Review of Natural Gas Capacity Options*, Sussex Economic Advisors, 2014, available at: http://www.iso-ne.com/committees/comm_wkgrps/othr/egoc/mtrls/2014/mar62014/maine_puc_gas_study_022614.pdf; *Assessing Natural Gas Supply Options for New England and their Impacts on Natural Gas and Electricity Prices*, Competitive Energy Services, 2014, available at: http://competitive-energy.com/docs/2014/02/CES_REPORT_NaturalGasSupply_20140131_FINAL.pdf; Black and Veatch studies; winter reliability program at ISO NE.

² PJM Interconnection is a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia.

³ Annual sum = \sum [Daily ISO-NE generation by gas-fired units (MWh) x Assumed heat Rate of 7.5 MMBtu/MWh x daily natural gas price spread (TETCO M3 - Algonquin Castigate)].

⁴ 144 FERC ¶61,204 and 148 FERC ¶61,179

efficiency as well as in diversifying the electric mix with the development of installed capacity of in-state and regional renewable energy generation; however, additional creative solutions are necessary to address price volatility, grid reliability and future regional gas capacity deficiency. DOER is committed to continuing the success of our nation-leading Mass Save® program, burgeoning solar market, and clean energy generation development, including cost-effective generation from renewable and hydroelectric units. However, DOER recognizes these programs as complimenting the potential gains from additional natural gas capacity to achieve the goals of reduced ratepayer cost, diversifying the energy mix and securing electric system reliability.

The New England electric grid is a changing landscape with gaps in generation predicted for the near future. More than 4,600⁵ MW of capacity is expected to retire over the next three years; ISO NE further estimates that up to 8,300 MW (total) of generating capacity are assumed at risk of retirement by 2020 in the region, putting the system's reliability at risk.⁶ Because gas distribution customers are served by long-term contracts, the volatility of the market and corresponding higher winter prices is felt more sharply by electric distribution customers. These issues may be alleviated if there were sufficient gas capacity for EDC purchase to serve the electric generation needs of their customers. While new gas generation units have been built in recent years, gas delivery capacity has not kept pace. This is evidenced by the "Electricity Fixed Basic Service Charge" for Massachusetts customers (Eversource, National Grid, and Unitil), which *jumped between 60% to 96%* for the winter of 2014-2015, over the same period in 2013-2014, due to the constraints on gas delivery capacity, pushing up forward prices of gas and electricity and impacting generation by gas fueled units.

On the coldest winter days, generation from coal-fired and oil-fired generators fills in the gap left by gas unit constraints on gas delivery capacity. The natural gas capacity constraints during the winter months in New England place the grid at risk due to electric generation shortfalls and impose higher electricity costs on Massachusetts ratepayers. In 2014, during the high electric load summer months (May-October) of 2014 when gas supplies exceeded New England demand, coal-fired and oil-fired units in ISO-NE generated 753 GWh and 60 GWh of electricity respectively, a small fraction of their capability. However, during the heating season of 2014 (January-April and November-December), when the lions' share of natural gas supplies were consumed by heating demand, coal-fired and oil-fired generation increased by more than six fold to 4,302 GWh and 756 GWh, respectively. Moreover, since these aging coal and oil generation units dominate ISO NE's list of capacity expected to retire before 2020, this potentially leaves significant gaps in generation during the winter months, further decreasing reliability.

Local gas distribution companies contract for gas capacity to serve their thermal load and receive assurance of cost recovery in their rates. However, generators with gas-fired power plants who sell into an unregulated power market are generally unwilling or unable to take similar steps to secure firm gas capacity. For these generators, there is added risk for such contracting because there is no means by which they can be reasonably assured of receiving enough revenue to cover the cost over the course of each year. Pipelines also are not willing to build new capacity without having long-term contracts in place. Hence, there has been insufficient assurance for pipeline companies to take the steps necessary to build capacity for

⁵ http://www.iso-ne.com/static-assets/documents/2014/11/2014_Regional_System_Plan_press_release_-_final.pdf

⁶ http://www.iso-ne.com/committees/comm_wkgrps/prtcpnts_comm/pac/mtrls/2012/dec132012/retirements_redacted.pdf

natural gas-fired electric generators, despite the increasing natural gas demand for heating and as a source of supply for electric power in Massachusetts and New England. The mismatch between the availability of long-term commitments needed to stimulate necessary gas pipeline expansion and the willingness and/or ability of gas-fired generators to supply those commitments is the essential problem that is in need of a solution.

II. Department Review of Supply Contracts

General Laws c. 164, § 94A⁷ requires gas and electric companies to file for the approval of all contracts for the purchase of gas or electricity of a duration greater than a year before the Department. Department approval under this section “requires a determination that the contract is consistent with the public interest.” Petition of WMECO, 2014 WL 4680735 (2014), DPU 14-57. Gas utilities routinely file precedent agreements for natural gas capacity and seek Department approval pursuant to § 94A. See AIM project, DPU 13-157, 13-158, 13-159 (2014) (proposed contract is in the public interest if the acquisition is consistent with the company’s portfolio objectives and compares favorably to the range of alternative options reasonably available at the time of the acquisition). The plain reading of § 94A does not limit an electric utility from filing only electricity contracts. Section 94A applies to any “gas *or* electric company” that is seeking to purchase “gas *or* electricity.” G.L. c. 164, § 94A (emphasis added).⁸ Thus, if an EDC were to enter into a contract for gas capacity, such EDC also would need to obtain approval under G.L. c. 164, § 94A in order for such contracts to be effective. The EDC does not escape regulatory pre-approval of any such contract simply because it is an electric company. Further, the pre-approval process not only protects consumers, but also provides a regulatory vehicle for the utility to obtain reasonable assurance that the costs of any such contractual arrangement will be included in rates.

If contracts were pursued by EDCs, it is imperative that any such contracts benefit the ratepayers. In the approval process, the EDCs would carry the burden of proof to meet the Department’s standard of approval. Consistent with established §94A standards, the contracts must be shown to be in the public interest. Considerations to make in applying this standard

⁷ M.G.L. c. 164, § 94A provides:

No gas or electric company shall hereafter enter into a contract for the purchase of gas or electricity covering a period in excess of one year without the approval of the department, unless such contract contains a provision subjecting the price to be paid there under for gas or electricity to review and determination by the department in any proceeding brought under section ninety-three or ninety-four; provided, that nothing herein contained shall be construed as affecting a contract for the purchase of gas or electricity from a person or corporation engaged in manufacturing, where the manufacture, sale or distribution of gas or electricity by such person or corporation is a minor portion of his or its business, and which contract is made in connection with a contract to supply such person or corporation with gas or electricity, or as affecting a contract for the purchase of electricity from an alternative energy producer. In any such proceeding the department may review and determine the price to be thereafter paid for gas or electricity under a contract containing said provision for review. Any contract covering a period in excess of one year subject to approval as aforesaid, and which is not so approved or which does not contain said provision for review, shall be null and void. The department is authorized to exempt any electric or generation company from any or all of the provisions of this section upon a determination by the department, after notice and a hearing, that an alternative process or incentive mechanism is in the public interest.

⁸ “‘Or’ and ‘and’ are generally interchangeable and ‘one may be substituted for the other, if consistent with the legislative intent.’” Holyoke Water Power Co. v. FERC, 799 F.2d 755 (1986) (dissenting opinion interpreting M.G.L. c. 164, § 94A and quoting 1A C. Sands, Sutherland Statutory Construction § 21.14 at 127, and cases cited at 127-34, n. 6 (4th ed. 1985)).

could include: the need for additional gas capacity (is this necessary for reliability, price signals, etc.); whether the proposed contract the best among reasonably available alternatives; whether the capacity contracted for sufficient to meet the need; and, whether there a material net benefit to electric customers. In any event, the application of the public interest standard to any filed contracts is within the discretion of the Department to determine.

DOER recognizes that EDCs contracting for natural gas capacity pursuant to G.L. c. 164, § 94A would be a matter of first impression for the Department. However, DOER believes that serious consideration should be given to approval of a process by which long-term gas capacity contracts can be executed by EDCs, whereby the EDC would release the capacity into the market on an on-going basis, could receive Department approval. If undertaken, such arrangements could enable electric generators to secure capacity needs, with net benefits being captured in electric rates for all distribution customers. While allowing EDCs to contract for natural gas firm transportation capacity would require the net annual cost/savings to be reconciled through electric rates, such arrangements would be in the public interest if the economic and other measurable benefits are materially higher than the underlying cost. These benefits would potentially come in the form of reduced electric rate volatility, lower overall winter electric prices, and enhanced system reliability. DOER respectfully asks the Department to open an investigation into the means by which EDCs can contract for gas delivery capacity to the benefit of electric ratepayers. Specifically, DOER asks the Department to take comment from interested stakeholders on this matter, including the following questions:

- A. Is there any legal impediment to the Department accepting and considering natural gas capacity contracts by EDCs under §94A and, if approved, providing reasonable assurance of cost recovery?
- B. Is there an alternative mechanism available for EDCs or other parties to secure new, incremental gas delivery capacity for the region?
- C. What would be the standard of review for such contracts?
- D. How should affiliate relationships among EDCs, potential bidders be addressed?
- E. What financial risk will be borne by ratepayers and EDCs? What mitigation tools are available to offset these risks?
- F. Since the effects of any capacity contracts would have a regional impact, should any approvals be conditioned upon some or all New England states sharing in the contracting obligation?
- G. How will the contracted-for capacity be made available to the market such that ratepayers in Massachusetts net the benefits?
- H. Should there be a third party managing the sale of the capacity in the market?
- I. If a contract is approved, how should costs be allocated in distribution rates?

III. Conclusion

Again, DOER respectfully requests the Department open an investigation into the means by which new gas delivery capacity may be added to the New England market, including the applicability of G.L. c.164, §94A. As capacity in the region is constrained with continued impacts on both system reliability as well as customer rate impacts, DOER requests this investigation proceed as soon as possible. Accordingly, DOER respectfully recommends the Department simultaneously address the suggested questions offered above to maximize efficiency of the discussion and process.

Respectfully submitted,

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DEPARTMENT OF ENERGY RESOURCES

By its attorney:

/s/Elizabeth Mahony

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