July 19, 2017

VIA ELECTRONIC FILING

Honorable Kathleen H. Burgess
Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

Re: Case 17-M-____ – Petition of New York State Electric & Gas Corporation for Authorization to Construct a Natural Gas Compressor Pilot Project in Tompkins County, New York and to include the costs associated with the Compressor Project in its capital rate base as an addition to gas plant, and to defer any incremental O&M costs associated with the Compressor Project

Dear Secretary Burgess:

Enclosed, please find New York State Electric & Gas Corporation's Petition for Authorization related to the construction of a Natural Gas Compressor Pilot Project in Tompkins County, New York.

Respectfully submitted,

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STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

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PETITION OF NEW YORK STATE ELECTRIC & GAS CORPORATION FOR AUTHORIZATION TO CONSTRUCT A NATURAL GAS COMPRESSOR PILOT PROJECT IN TOMPKINS COUNTY, NEW YORK AND TO INCLUDE THE COSTS ASSOCIATED WITH THE PROJECT IN ITS CAPITAL RATE BASE AS AN ADDITION TO GAS PLANT, AND TO DEFER ANY INCREMENTAL O&M COSTS ASSOCIATED WITH THE COMPRESSOR PROJECT.

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Dated: July 19, 2017

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I. INTRODUCTION

New York State Electric & Gas Corporation ("NYSEG" or the "Company") hereby applies for authorization to construct a natural gas compressor pilot project in Tompkins County, New York (the "Compressor Project") and to include the capital costs associated with the Compressor Project in its capital rate base as an addition to gas plant, and to defer any incremental O&M costs associated with the Compressor Project. Shortly after approval is received from the Commission for the Compressor Project, NYSEG will issue a Non-Pipe Alternative RFP which will seek proposals to address not only the pressure/reliability issues present in the area, but also address the pending demands for additional gas in the area, as well as to allow for additional future growth in gas utilization in the area.

II. DISCUSSION

NYSEG requests that the Commission review and approve a proposed Compressor Project. The Compressor Project is in the public interest because it is intended to address the safety, pressure and reliability issues related to existing customers in the Lansing area of Tompkins County in NYSEG's Ithaca Division, which would otherwise have been addressed by the implementation of a new gas pipeline. The Compressor Project as planned would involve the implementation of four (4) compressors in Tompkins County on existing natural gas distribution lines, with the goal of increasing pressure on the system to minimize the chance of pressures falling to unreliable or unsafe levels for the existing customers on the natural gas system in the Lansing area of Tompkins County, especially when temperatures drop below 20 degrees Fahrenheit. A detailed description of the Compressor Project, including an estimated schedule and estimated costs, is appended to this Petition as **Appendix A**.

The Compressor Project is considered a gas business pilot project since this type of approach has not yet been tried in New York. Given the unique approach, it will be critical for the local community to actively support and be involved in and committed to the successful implementation of the Compressor Project. One of NYSEG's goals is to have the compressors in place for the majority of the heating season of 2018/2019, and to reach this goal will require an expeditious review and approval of this petition by the Commission, as well as full support from the communities involved.

It should be made clear that the implementation of these compressors by NYSEG would not lift the moratorium on new gas service requests currently in place in the Lansing/Tompkins

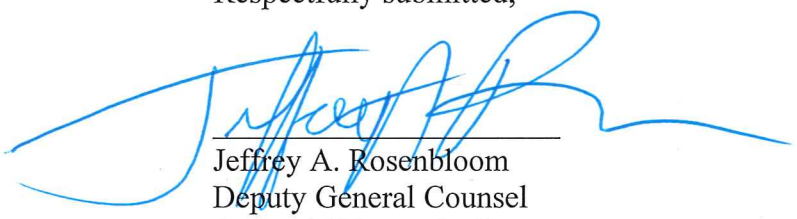
County area, as the Compressor Project addresses only the safety/pressure/reliability issues associated with existing customers. Other issues that exist in Tompkins County related to provision of gas service to a group of customers who have already requested such service, and the ability to allow for future growth in gas demand in the region, would require the lifting of the moratorium, and would need to be resolved through other means. As noted in the Introduction, NYSEG will release an RFP for Non-Pipe Alternatives to include the addressing of these other issues shortly after the Commission approves the petition for the Compressor Project.

The Company appreciates the cooperation of representatives from Tompkins County that it has received to date, and will need their support throughout this process, including assistance in siting the compressors at appropriate locations in the county.

III. CONCLUSION

Allowing the Company to construct the Compressor Project is in the public interest because it will result in elevated system pressures in the Lansing area during times of peak gas demand. In addition, operation of the Compressor Project will improve system reliability; better allow for the safe and continued uninterrupted supply of natural gas service to the existing customers in the Lansing area and help to return the gas distribution system operation to within infrastructure design conditions. Accordingly, for the above-stated reasons, NYSEG respectfully requests that the Commission authorize the Company to construct the Compressor Project and to include the capital costs associated with the project in its capital rate base as an addition to gas plant, and to defer any incremental O&M costs associated with the project until such time as those O&M costs are reflected in base gas delivery rates.

Respectfully submitted,



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Tompkins County Natural Gas Compressor Pilot Project

Appendix A to 7/19/17 Petition to NYPSC

1. Executive Summary

After many years of natural gas load growth in the Town of Lansing section of Tompkins County, NYSEG's gas distribution system in this area has experienced pressure drops beyond the maximum system design criteria. This pressure drop creates safety and reliability issues for gas customers in that area because the pressure drops may require curtailment of some customers. To avoid any further impacts on its customers in this area, NYSEG, in February, 2015, issued a moratorium indicating that the Company would be unable to accept any applications for additional gas service in this area. Demand for new gas service has continued to grow, and the situation associated with the low pressure levels on the existing system has continued since that time.

After discussions with various stakeholders from the community, DPS Staff, and the Commission, NYSEG is proposing this compressor project as a pilot project before advancing any further on the Lansing/Freeville Pipeline project, which was included in the Company's rate plan (the Lansing/Freeville project would install a new pipeline and make necessary upgrades to regulator stations in the area to address the low pressure on the system, as well as allow for the lifting of the moratorium related to new gas service applications while also accommodating future growth in demand for natural gas in the area).

To address the safety and reliability issues associated with the low pressure on the system, NYSEG is proposing to install four (4) compressor packages placed strategically within the gas distribution system to boost the system pressures in stages during peak demand times. This is a unique approach to the issue of system pressure drop on a gas distribution system that has not previously been tested in New York. Upon approval from the Commission, the project will begin full-scale implementation with a planned schedule to be completed by the end of 2018, in time for most of the 2018/2019 heating season. NYSEG will continue to engage local stakeholders through a transparent and frequent outreach and will keep the Commission informed by filing periodic project status updates.

This completion of the proposed compressor project would not lift the moratorium currently in place in certain areas of Tompkins County, as it is designed to address the current low pressure issues on the system. The Company will be pursuing multiple alternatives to deal with the pent-up demand for gas in the area as well as to allow for potential future demand. Shortly after approval of the compressor project petition by the Commission, NYSEG will be issuing a Non-Pipe Alternative RFP which will seek proposals to address not only the pressure/reliability issues present in the area, but also to address the pending demands for additional gas in the area, as well as to allow for additional future growth in gas utilization in the area, both for existing customers as well as for new customers. If no reasonable economic alternatives are

available, the Company would need to look again at the Lansing/Freevlle pipeline project discussed above.

2. Business Model Overview

2.1.Problem

In recent years, NYSEG's Ithaca Division has experienced significant growth in natural gas load with the attachment of several new commercial businesses, residential subdivisions and facilities at Cornell University. Reinforcements to the gas distribution system have been completed over the years to support the increased growth. However, the limitations of those reinforcements have been reached or exceeded. If the system experiences peak day conditions, the north end of Ithaca's gas distribution system, primarily in the Town of Lansing, loses its ability to maintain minimum acceptable delivery pressures. The system is designed to accommodate normal system pressure drops of 30% and can operate safely for a period of time with a system pressure drop of 50%. Our system modeling indicates that should load growth continue (either within the direct affected area or even downstream), these system pressure drop levels may be exceeded. This creates safety and reliability issues for our customers in that area because the pressure drops may require curtailment of some customers. As noted in section 1, a moratorium on additional gas service has been in place for over two years in the Lansing area.

2.2.Solution

The solution included in the Company's most recent rate case to the safety/reliability issues associated with the pressure drop and to address current and future gas requests in the Lansing area was to reinforce the existing natural gas distribution system with construction of a new pipeline. Several representatives from Tompkins County have expressed a strong interest in alternatives to the pipeline reinforcement project in order to help meet the County's emission reduction goals. In an effort to address the pressure issue only, NYSEG proposes to develop and test a potential alternative to the pipeline reinforcement, which encompasses the installation and operation of four (4) complete reciprocating, skid mounted, electric motor-driven compressor packages placed strategically within NYSEG's gas distribution system to boost the pressures in stages during times of peak demand. The compressors are intended to reinstate reliability by returning system pressures in the Lansing area to within the system's designed pressure drop levels.

It will be critical for the local community to actively support, be involved in and be committed to the successful implementation of the pilot project. It is anticipated that the community can be of significant assistance in the siting of the compressors at the appropriate locations in the county.

2.3.Hypotheses Being Tested

The Gas Compressor Pilot Project seeks to test the following hypotheses:

- Utilization of natural gas compression equipment can be operated to manage pressure drop within a gas distribution system.
- Customers and community stakeholders will support utilization of natural gas compression equipment.

2.4.Other Advantages/Benefits for New York

The Gas Compressor Project is in alignment with and supportive of multiple goals of the state.

Make Energy More Affordable For All New Yorkers

- This project will test the cost effectiveness of utilizing an alternative approach to meeting natural gas system reliability needs and will help inform if compressor utilization is a viable option for similar applications in the future.

Cut Greenhouse Gas Emissions by 80% by 2050

- Increased utilization of natural gas has been a critical component of New York's ongoing reduction of greenhouse gas emissions. Existing customers and communities will continue to have a choice of what resources best meet their needs.

Improve New York's Existing Energy Infrastructure

- This project will improve the reliability of the existing natural gas distribution system.

Create New Jobs and Business Opportunities

- Continued access to reliable natural gas service is viewed as a critical component of many industries in New York.

3. Solution Attractiveness

3.1.Unique Value Proposition

3.1.1. Customer

Customers in the project area are currently at risk of system interruption during peak conditions due to the possibility of a significant system pressure drop. The results of this project will determine whether customers experience distribution pressure drops that are within acceptable standards after implementation of the compressors, which will increase the overall reliability of the system.

3.1.2. Stakeholders

Some community stakeholders strongly encouraged the Company to consider an alternative solution to the construction of the Lansing/Freeville distribution pipeline. The development of this compressor project provides time for further examination of alternatives, through the Non-Pipe Alternative RFP process noted in section 1, that may allow the pipeline project to be deferred.

3.1.3. Utility

Pressure drop in the distribution system occurs not only because of customers taking gas from the system but also because of resistance to gas flow caused by restrictions or pipe roughness as natural gas travels from one pipe segment to another. Maximum pressure drop occurs when the demand for gas is the highest. NYSEG's gas infrastructure design requirements reflect that a properly designed distribution system should have no more than a 30% pressure drop of the system's operating pressure measured at the outlet of the pressure control station. Excessive pressure drop will result in poor system performance and can expose vulnerability to abnormal operating conditions leading to potential loss of service to customers. Service regulators are generally sized and set for a minimum inlet pressure of 50% MAOP. Therefore, operating pressures of 50% MAOP are necessary for safe and reliable service regulator operation. Installation of the compression equipment will determine whether system reliability can be reinstated to adequate levels for existing customers in the Lansing area during peak gas demand conditions. If viable, this solution can help avoid potentially costly expenses for emergency response to loss of service, damage to customer-owned homes and facilities as a result of no heat and outreach and education expenses related to the local media and public and government officials.

3.2.Ability to Scale

The proposed pilot project and expected results may be considered for application to other gas distribution systems experiencing similar pressure drop and reliability concerns.

4. Pilot Project Plan Information

4.1.Metrics for Success

The existing distribution system contains an electronic terminal pressure station at the far (north) end of the system (in Lansing) that continually measures internal pressures and is monitored remotely by NYSEG's Gas Control center. In addition, there are numerous district regulator stations throughout the Ithaca distribution system which contain internal pressure recording devices. During periods of peak demand and while using the newly installed compression equipment, the Lansing terminal pressure and the pressures recorded at various district regulator stations will be analyzed and compared to anticipated results predicted in the network model analysis, and compared to recent historical pressures.

4.2.Activities and Timelines

PROJECT SCHEDULE & TIMELINE (ESTIMATED)		
ACTIVITY DESCRIPTION	**START**	**FINISH**
Regulatory Approval	07/15/2017	10/19/2017
Engineering RFP & Contract Award	09/01/2017	11/01/2017
Engineering and Detailed Design	11/01/2017	02/28/2018
Property & Easements	10/19/2017	07/15/2018
Long Lead Material Procurement	10/19/2017	10/15/2018
Permitting & Site Plan Approvals	03/15/2018	06/15/2018
Short Lead Material Procurement	03/15/2018	06/15/2018
Construction Bid/Award & Installation	03/15/2018	11/30/2018
Check-out & Commissioning	12/01/2018	12/31/2018
In-Service		12/31/2018
Initial Performance Evaluation	01/01/2019	03/31/2019

4.3.Participation

NYSEG Resources

Department	Role
Gas & Electric Engineering Services	Develop RFP, Owners' Engineer
Gas & Electric Operations	Assist in Start-up, Testing & Equipment Training
Project Management	Coordination & Project Oversight
Property Management	Property and Property Rights Acquisition
General Counsel	Contract Review
Procurement	Material & Service Contract Procurements
GIS & Mapping	System Mapping Support
Public Affairs	Community Outreach Program

Third Party Resources

Resource Type	Role
Engineering & Design Services	Detailed Engineering & Design
Construction Installation Services	Installation of Infrastructure
Municipality Review/Approval	Site Plan Approval
NYS Department of Environ. Conservation	Storm Water Plan
NYS Public Service Commission	Necessary Approvals

4.4.Outreach to Targeted Communities

As with any project that involves property acquisition along with planning and construction of utility infrastructure, NYSEG will plan and implement appropriate outreach to the affected communities. Outreach will involve the following:

Elected and Municipal Officials: To ensure that elected and municipal officials are fully aware of the proposed pilot project, internal Company Public Affairs staff will reach out, at a minimum, to the following:

- Town of Lansing Supervisor
- Town of Lansing Planner
- Village of Lansing Mayor
- Village of Cayuga Heights Mayor
- Tompkins County Legislator representing Lansing and Cayuga Heights
- Tompkins County Legislative Chairman
- Tompkins County Planning Commissioner

- Tompkins County Planning, Development and Environmental Quality Committee Chair

Community Leaders: Public Affairs will also conduct outreach to community leaders and organizations that have expressed interest in the Lansing-Freeville Gas Reinforcement Project in the past, including:

- Tompkins County Area Development
- Tompkins County Chamber of Commerce
- Tompkins County Energy Task Force
- Tompkins County Climate Protection Initiative (TCCPI)
- Area developers
- Tompkins County Energy and Economic Development task force members

Customers: Customers in the project area will receive communications as necessary. These avenues may include but are not limited to:

- Direct mail letters
- Project information sessions at locations in the community
- Fact sheets and FAQs
-

Media: The Company will be prepared to respond to media requests, and seek proactive media involvement if/when appropriate.

4.5.Conditions / Barriers

This project will require SEQR review for environmental impacts and approval through the Site Plan Approval process from Village/Town Planning Boards. In addition, the project is contingent on NYSEG acquiring four separate parcels of property on which to locate the compressor equipment (the parcels must be in the vicinity of the locations identified in the network model analysis associated with the project).

5. Regulatory Considerations

5.1.Cost

Total cost, including design engineering, material, equipment, labor, and overheads to install and commission four (4) complete compressor station sites is currently estimated at $3,956,000. Given the unique nature of this pilot project and its dependence on associated property acquisition, it is likely that the actual project costs could range from -10% to +40% of

the current estimate. Given the project is installing equipment which has not been used previously by NYSEG, it is likely that the initial annual O&M costs associated with the monitoring, maintaining, testing and otherwise supporting the project will be between 5% and 15% of the project capital cost.

ESTIMATED PROJECT CAPITAL COSTS	
ITEM	**ESTIMATED COST**
Engineering Services	$ 176,000
Public Outreach & Legal	$ 78,000
Material Procurement	$ 2,064,000
Real Estate & Permitting	$ 98,000
Construction & Commissioning	$ 1,540,000
TOTAL CAPITAL COST	**$ 3,956,000**

5.2.Accounting Treatment

The Company is requesting Commission approval to capitalize all actual costs incurred for the development and implementation of the compressors and to include those costs in gas rate base once the compressors are in service. The Company is also requesting Commission approval to defer on the Company books all incremental O&M costs incurred that are associated with the project until such time as those O&M costs are included in base delivery rates.

6. Reporting

Quarterly project status reports will be provided to the DPS Staff and will include a description of progress toward project milestones, project cost performance (actual expenditures compared to budget), and the measurement of Lansing terminal pressure as described in section 4.1 above.

7. Conclusion

7.1.Post Pilot Project Benefits

7.1.1. Qualitative

The qualitative benefits related to this project include: Maintaining existing customer satisfaction by operating a safe and reliable system; Working with the stated needs of engaged stakeholders through a proactive proposal to meet the gas distribution system reliability needs.

7.1.2. Quantitative

The quantitative benefits related to this project include maintaining system pressure within design standards as measured throughout the Lansing gas distribution system.

7.2.Plans to Scale

If the Compressor Project is successful, the Company may consider similar applications in other areas where conventional methods for meeting system reliability may be addressed by an alternative economical solution.

7.3.Advantages

In summary, operation of the four skid mounted compressor package units, when placed strategically within the existing gas distribution system will result in elevated system pressures in the Lansing area during times of peak gas demand. Operation of the compressor infrastructure is intended to reinstate system reliability, allow for the safe and continued uninterrupted supply of natural gas service to the existing customers in the Lansing area and the return of gas distribution system operation to within infrastructure design conditions.