

BEFORE THE
NEW YORK STATE
PUBLIC SERVICE COMMISSION

-----X
Petition of New York State Electric & Gas Corporation
For Authorization to Construct a Natural Gas
Compressor Pilot Project in Tompkins County, NY
-----X

Case 17-G-0432

**NEW YORK STATE ELECTRIC & GAS CORPORATION PETITION FOR
APPROVAL OF NON-PIPE ALTERNATIVES**

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I. Introduction

New York State Electric & Gas Corporation (“NYSEG” or the “Company”) hereby requests authorization to undertake the Non-Pipe Alternative (“NPA”) portfolio of projects described herein and to recover the costs associated with these projects in the manner set forth below.

In its Order Authorizing Natural Gas Compressor Pilot Project,¹ the State of New York Public Service Commission (“NYPSC” or “Commission”) directed NYSEG to issue a Non-Pipe Alternatives Request for Proposals, within 30 days of issuance of this Order, to seek proposals to address not only the current pressure and reliability issues in the Ithaca Division and the Town of Lansing, but also to address the pending demands for the provision of gas service in the area, for both existing customers as well as new customers. As described below, NYSEG conducted the Commission-directed process and issued an initial Request for Proposal (“RFP”). However, the Company did not receive any acceptable bids during that required process. As further described below, the Company continued to seek Non-Pipes Alternatives through the Commission-directed process of a second Request for Information (“RFI”)/RFP process focused solely on the pressure and reliability aspects present in the Lansing area. The NPA portfolio identified herein reflects the results of that process and the Company herein requests Commission authorization for implementation and cost recovery.²

¹ Case 17-G-0432 - Petition of New York State Electric & Gas Corporation for Authorization to Construct a Natural Gas Compressor Pilot Project in Tompkins County, Order Authorizing Natural Gas Compressor Pilot Project (issued Nov. 16, 2017) (the “Compressor Project Order”) at p. 9, Ordering Paragraph 3.

² The NPA portfolio contained herein also is consistent with the terms of the Joint Proposal filed on June 22, 2020 in Cases 19-E-0378 et al. – Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of New York State Electric & Gas Corporation (the “2020 Joint Proposal”).

II. Background and Executive Summary

A. Overview of Lansing Natural Gas Distribution System Reliability Concerns

In recent years, NYSEG's Ithaca Division has experienced significant growth on its natural gas distribution system resulting in lower system operating pressure. Although NYSEG has completed system reinforcements to the gas distribution system over the years in order to support this growth, those reinforcements have reached or exceeded the limits of their ability to satisfy peak day conditions. During peak day conditions, minimum acceptable delivery pressures cannot be maintained at the north end of Ithaca's gas distribution system in Lansing, New York and NYSEG's modeled low design day pressures create reliability concerns for these very cold days. Due to these reliability concerns, NYSEG issued a moratorium on the provision of new and expanded gas service in the Lansing area, which remains in place today ("2015 Lansing Gas Moratorium"). NYSEG has continued to plan and develop projects to otherwise assist in remediating these reliability concerns.

B. Projects Designed to Mitigate Lansing Reliability Concerns

NYSEG has developed several projects to address the reliability concerns since the 2015 Lansing Gas Moratorium began, including the Lansing /Freeville Reinforcement Gas Pipeline Project, the Lansing Compressor Project, the East Shore Drive Reliability Project, and the Lansing Non-Pipes Alternative Request for Proposals ("NPA RFP") (the last including three (3) iterative versions leading to the current Lansing "NPA RFP II"). NYSEG has worked closely with local stakeholders and Department of Public Service ("DPS") Staff throughout the development and exploration of potential improvement projects, and during that time local, state, and national environmental concerns and policies have also developed which have, and will continue to, shape the most appropriate solutions to the Lansing reliability concerns. State environmental targets and policies include greenhouse gas emission reduction targets of 85% by 2050 (<https://climate.ny.gov/>), the Climate Leadership and Community Protection Act which calls for significant de-carbonization, and reduction in Greenhouse Gas emissions. Additionally, the 2020 Joint Proposal reflects the commitment of the parties to a goal of zero-net increase in gas use.

For the reasons explained below, of the projects developed to help remediate the Lansing reliability concerns, the East Shore Drive Reliability Project and the Lansing RFP II have emerged as the most appropriate short to medium term potential solutions. The East Shore Drive Reliability Project awaits permit resolution. The Lansing NPA RFP II has emerged as a viable additional solution to help mitigate the reliability concerns.

III. Lansing Reliability Issues and Remediation Actions

A. Reliability Concerns and Moratorium

In recent years, NYSEG's Ithaca Division has experienced significant growth on its natural gas distribution system from new and expanding residential, commercial and industrial facilities.³ Although NYSEG has completed system reinforcements to the gas distribution system over the years to support this

³ NYSEG does not expect any COVID driven total gas use changes, although there may be a shift between residential use and commercial use.

growth, those reinforcements have reached or exceeded the limits of their ability to satisfy peak day conditions. Specifically, during peak day conditions, minimum acceptable delivery pressures are at risk of being maintained at the north end of Ithaca's gas distribution system in Lansing.

NYSEG's Ithaca-Lansing gas distribution system operates with a Maximum Allowable Operating Pressure ("MAOP") of 60 Pounds per Square Inch Gauge ("PSIG"). NYSEG's system planning pressure loss criteria for gas distribution systems begins evaluating and monitoring the need for system improvements when operating pressures are modeled below 70% of MAOP for the design day, peak hour condition. Systems operating between 50% and 70% of the maximum operating pressure (30 - 42 PSIG) have limited capacity to support gas load growth. Existing design day (75 Heating Degree Day (HDD)) pressure on NYSEG's Ithaca-Lansing gas distribution system is calculated to be 14 PSIG at the system endpoint which is substantially lower than the desired minimum 50% of maximum operating pressure of 60 PSIG during times of peak operating conditions.⁴

The steady decline in the percentage (%) of MAOP modeled, resulting in low design day pressures, creates reliability concerns for the Lansing distribution system on very cold days. Due to these concerns, on February 9, 2015, NYSEG notified the Secretary of the Commission that it was unable to accept applications for expanded gas service from new or existing customers in the Town of Lansing, in Tompkins County, New York.⁵ This restriction constitutes the Lansing Gas Moratorium on new and expanded gas service provisions, which remains in place today.

B. Proposed Lansing/Freeville Reinforcement Pipeline

Since mid-2013, NYSEG has been planning for a new gas supply project called the Lansing/Freeville Reinforcement Pipeline Project ("Pipeline Project") to mitigate the identified reliability concerns of the Ithaca-Lansing gas distribution system. The project includes 7 miles of 10-inch distribution main along West Dryden Road, a new regulator station at Warren Road to connect to NYSEG's existing distribution system, and a rebuild of the Dominion Transmission Freeville Gate Station which serves NYSEG. The Company included the Pipeline Project to address the need for additional gas supply and pressure reinforcement in the Town of Lansing, in Cases 15-G-0284 et al. The approximate cost of the Pipeline Project at that time was \$18.6M. As part of the rate case process, capital expenditures which included the planned spending on the Pipeline Project were included in the Joint Proposal approved by the Commission in its Order Approving Electric and Gas Rate Plans in Accord with the Joint Proposal, issued June 15, 2016 in Cases 15-G-0284 et al. However in the further development of the Pipeline Project, NYSEG was unable to secure enough community support for the project to obtain the number of property easements which would have been necessary to build the

⁴ Most of the references to Lansing area system design pressure were developed using the model design currently in use at the time. That is the case with the following sentence: "Existing design day (75 Heating Degree Day ("HDD")) pressure on NYSEG's Ithaca-Lansing gas distribution system is calculated to be 14 PSIG at the system endpoint which is substantially lower than the desired minimum 50% of maximum operating pressure of 60 PSIG during times of peak operating conditions." However, in 2019, NYSEG began using an updated model to assess design day pressure. In the new (2019) model, the current design day pressure is 11.33% of MAOP, equating to 6.8 PSIG.

⁵ See Appendix B which is a copy of NYSEG's February 9, 2015 Letter to the Secretary, New York State Department of Public Service, notifying the NYPSC that NYSEG would be unable to accept applications for expanded gas service from new or existing customers in the Town of Lansing, in Tompkins County, New York.

pipeline.⁶ Further environmental developments in the Lansing area and in New York State resulted in NYSEG seeking solutions other than the Pipeline Project to address the Lansing distribution system needs.⁷

C. Proposed Lansing Compressor Project

As a potential shorter term alternative for the Pipeline Project, in July 2017, NYSEG petitioned the NYPSC to proceed with a Compressor Project in the Lansing area (“Compressor Project”), and agreed to pursue NYSEG’s first Non-Pipe Alternative Request for Proposal(s) (“NPA RFP”) upon approval of the Compressor Project and related cost recovery. As previously noted, the Commission approved the Company’s petition to proceed with the project.⁸ The Compressor Project was designed to address the safety and reliability issues associated with the low pressure on the system, through the installation of four (4) compressor skids placed strategically within the Lansing area gas distribution system to boost the system pressures in stages during peak demand times. The goal of the Compressor Project was to increase 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 dropped below 20 degrees Fahrenheit.

The intent of the initial NPA RFP was to provide additional gas usage reduction or increased supply to further address the pressure/reliability issues, to address the pent up demand for natural gas in the area, and provide capacity for future growth and potentially lift the moratorium on new and expanded gas service. Due to ensuing local and state environmental items including certain difficulties and costs associated with the actual siting of the four compressor packages, it is unlikely that NYSEG will pursue the Compressor Project, but NYSEG remains committed to an NPA RFP solution.

D. Upcoming East Shore Drive Project

As part of NYSEG’s ongoing efforts to mitigate the Lansing area low pressure situation, a smaller construction project has been designed to connect a higher operating pressure area to a lower operating pressure area within the Lansing area in order to improve the design day northernmost endpoint pressure in the Town of Lansing.⁹ The sole purpose of this project is to improve reliability on the system, not to serve additional gas customers. This project is estimated to cost \$2.5M and is nearing the start of construction. It is estimated to take less than one year to complete. The East Shore Drive Project will help the pressure situation in Lansing by providing up to an additional 14.9 PSIG increase in pressure (or the equivalent of a 10 MCFH addition).

⁶ NYSEG tried but was unable to secure at least 50% of the easements needed to install the Lansing/Freeville-Reinforcement Pipeline.

⁷ These environmental and regulatory developments include greenhouse gas emission reduction targets of 85% by 2050 (<https://climate.ny.gov/>), the New York Climate Leadership and Community Protection Act (CLCPA) which requires aggressive emissions reductions, NYSEG’s 2020 Joint Proposal, which commits to a goal of zero-net increase in gas use and local sentiment in Lansing which largely does not favor expanded natural gas use or infrastructure.

⁸ Case 17-G-0432 - Petition of New York State Electric & Gas Corporation for Authorization to Construct a Natural Gas Compressor Pilot Project in Tompkins County, NY, “Order Authorizing Natural Gas Compressor Pilot Project” (“Compressor Order”) (issued Nov. 17, 2017).

⁹ The East Shore Drive project is estimated to cost \$2.5M and is included in the Company’s planned capital spend reflected in the 2020 Joint Proposal.

E. First NPA RFP

NYSEG's First Lansing NPA RFP ("RFP I")¹⁰ was issued in December 2017, in furtherance of the Company's agreement and the Compressor Order's requirement to seek NPA proposals through an RFP. RFP I was the first alternative to traditional natural gas infrastructure supply which the Company pursued. In preparing RFP I for initial distribution and establishing prospective RFP response review processes, NYSEG utilized concepts and formats created in its electric Non-Wires Alternatives ("NWA") program, which included the RFP document itself, the contact/ mailing list for notification of the NPA opportunity and steps in the proposed NPA process and schedule. Although these elements derived their genesis from the NWA process, significant changes were made to adapt the process and documents for NPA requirements. In developing the Lansing NPA RFP I, NYSEG frequently informed DPS Staff and potential stakeholders of objectives and progress toward achieving those objectives.

RFP I contained 22 pages, included two additional attachments (a confidentiality agreement which was intended to protect confidential information of the Company and bidders, and the February 9, 2015 Letter establishing the Lansing Moratorium which included a map of the moratorium area). The RFP also contained a non-binding "Letter of Intent" which NYSEG required potential bidders to indicate their interest in responding to the RFP, and to associate them with the group which would receive future informational updates regarding the RFP.

Through RFP I, NYSEG sought the equivalent of 430 MCFH in either new supply or demand reduction alternatives to natural gas to be provided within the moratorium area. Provision of that level of reduction and/or supply would have addressed the reliability requirements as well as both current and future demand for natural gas service in the Lansing area. To address NYSEG's responsibility to provide safe and reliable service, and to satisfy the need identified in the RFP, any resource proposed in response to the RFP was required to be able to maintain NYSEG's design day operating pressure of 42 PSIG at the system endpoint. The RFP estimated that approximately 20 – 30 days per year would require peak shaving or another supply alternative. With this RFP, NYSEG was anticipating that either a single proposal or a group of proposals which could be combined could achieve the 430 MCFH reduction or supply addition while meeting the rest of the requirements of the RFP. One of the requirements of RFP I was that community support of the NPA alternative could be achieved.

NYSEG received 13 proposals in response to RFP I. Proposals (or ideas) included in responses to RFP I included ground source heat pumps/geothermal resources; air source heat pumps; energy efficiency; demand response, some coupled with other electric resources; and alternative supply. Although many of the responses were incomplete and none met all of the requirements of the RFP, significant lessons were learned which positively impacted the later RFI/RFP process and results. Ultimately the RFP I timeframe expired, and respondents were notified that they could (in anticipation of a second RFP process): withdraw their proposal, submit their existing proposal as a response to the next RFP, or modify and respond with a revised RFP proposal. Many of the respondents to RFP I also responded to the later RFI and RFP II.

F. Market Development and Second RFP issued in December 2019

To foster local stakeholder engagement on a much greater scale and to gather input for improvement if a subsequent second RFP was published, NYSEG hosted two technical conferences in the

¹⁰ Appendix A contains a summary of all three Lansing NPA proposals.

Ithaca-Lansing area; one at the end of 2018 and the second at the beginning of 2019. These in-person conferences were well attended by local stakeholders, potential respondents, NYSEERDA, and DPS Staff, and generated significant feedback about the Lansing area natural gas needs, types of projects which might be supportable or not supported, the format and presentation of a potential next RFI or RFP document and local economic and environmental concerns.

Utilizing the feedback received from the two technical conferences, and as the next step toward securing a solution to the Lansing natural gas distribution system needs, in June 2019, NYSEG published an RFI to further engage the local community, stakeholders and potential developers in the design of a second RFP which was to follow. The RFI gathered information about potentially-available technologies and developer interest and terms which was used to inform the second NPA RFP. Some modifications NYSEG made in the RFI process as a direct result of the Technical Conferences were to streamline and simplify the language in the RFI (and later RFP II), to reduce the volume of relief requested through the RFI/RFP and to significantly expand the distribution of the RFI/RFP document. For the RFI, NYSEG utilized an emailing list of over 4,000 recipients and received indications of interest from ninety-eight entities. For both the RFI and the RFP II, NYSEG helped to facilitate respondent collaboration. Nineteen RFI responses were received which proposed an array of potential ideas and/or solutions ranging from energy efficiency and demand response programs to heat pump installations with additional incentives, heat recovery, on-demand fuel switching, education and outreach, Compressed Natural Gas (“CNG”) and Liquefied Natural Gas (“LNG”) supply solutions. Many proposals included multiple products or resources that targeted some level of energy efficiency. The RFI was non-binding for both NYSEG and the respondents, but it provided significant additional feedback and indications that a future RFP II would be a useful tool in developing the plan to continue to remedy the Lansing area reliability issues.

NYSEG incorporated technologies which were proposed in the responses to the RFI in the second RFP that was released in December 2019 (“RFP II”). In RFP II, and based on ongoing dialogue with stakeholders and DPS Staff, NYSEG reduced the target amount of MCFH needed and clarified that the goal of this RFP would be to improve system reliability – and would not result in the lifting of the moratorium. This change in focus allowed the target gas load reduction or increase in gas supply to be reduced from the 430 MCFH requirements included in RFP I, to 120 MCFH (which was considered the minimum to restore the system northernmost endpoint pressure on the design day to 42 psig or 70% MAOP) in RFP II. The expanded emailing list used for the RFI distribution was further refined to remove some listings for parties who were no longer interested and to add parties who had recently expressed interest, and was ultimately sent to about 3,600 parties, 55 of whom expressed an interest in responding. Among the proposals received in response to RFP II, multiple technologies with multiple portfolio options were proposed. Solutions included heat pumps, energy efficiency measures, dynamic electrification, heat recovery, hydrogen injection, education and outreach, CNG and LNG attribute solutions. Additional high level information about the technologies proposed, the RFP II current status and next steps/schedule follows in Section IV.

IV. Second NPA RFP Results

A. Process for Review of Proposals

NYSEG received 16 proposals from 15 entities in response to the Lansing NPA RFP II. The technologies proposed varied from non-gas solutions such as: heat pumps (air, ground, water, community

loop), heat recovery, energy efficiency measures, hydrogen injection, dynamic electrification, a demand response thermostat program and outreach and education; to gas injection solutions such as: CNG and LNG (with and without RNG attributes). Program delivery models included shared savings, direct installs/builds, installer consortium with enhanced rebates, not-for-profit outreach to include low to moderate income customers and utility distribution of products.

In the interest of achieving consistency, accuracy and completeness of the data reviewed across all proposals, NYSEG conducted research and exchanged several rounds of questions and answers with the responding developers to clarify inconsistencies and provide data which was missing from the developer proposals.

All developers responded to a first round of clarifying questions during the initial proposal review step. During this initial review of proposals, a decision was made to stop the review of three of these proposals (proposals 11, 12 and 13) for reasons such as: they did not meet the RFP needs or the system design characteristics explained in the RFP, and/or the proposed technologies were not commercially in use with enough operating data to allow NYSEG to confirm their potential efficacy when used as proposed. An explanation of those decisions is included in Appendix D of this petition.

NYSEG initiated two additional types of review of the remaining 13 proposals: a technical review, and then a Benefit Cost Analysis (“BCA”) review. As part of the technical review process, NYSEG reviewed the savings proposed by each developer and proposal to ensure the savings were attainable. Some proposal savings projections were deemed unlikely to be attained within the parameters of the proposal and the available participant base and were adjusted. After the technical analysis and using in some cases these savings adjustments, the 13 proposals underwent the BCA process.

During the BCA process, developers were asked a second round of clarifying questions relating more specifically to the data that was needed to accurately complete the BCA for each proposal. Assumptions regarding costs and benefits to be included were reviewed, and in many cases DPS Staff were consulted to assure consonance. BCAs were completed for each proposal individually, and because none of the non-gas proposals individually came close to meeting the MCFH need identified in the RFP, a BCA was completed for the entire group of non-gas projects together and for various combinations of non-gas proposals in different portfolios.¹¹ These portfolios of projects were created to examine various options for cost effectiveness, savings achievement potential, and how the costs associated with the various portfolios compared to the estimated costs for various physical infrastructure options discussed in Section II of this petition. Additional information describing the BCA process and the various portfolios considered including the recommended portfolio is provided in Section IV of this petition.

¹¹ Only the non-gas proposals were aggregated into various potential portfolios because the gas proposals (CNG, LNG) each met the MCFH need identified in the RFP, thus there was no need to combine them with other proposals.

B. Description of Proposals

The following is a high-level description of all proposals received, including the key proposal details.^{12,13} If the proposal made it through BCA process, the BCA ratio utilizing the Societal Cost Text (“SCT”) is shared below. If a BCA was not completed for a proposal, that decision is explained in Appendix D. Finally, each proposal description concludes with whether or not the proposal is included in the recommended portfolio solution. Please be aware that the savings shown for each entity may include savings which have been adjusted by NYSEG.

1. Proposal One

The first proposal is proffered by a consortium of installers who are in the business of heat pump and HVAC installation. They propose a significant number of residential heat pump installations and supportive or complementary energy efficiency solutions, within the zone of highest impact in the Lansing gas moratorium area.^{14,15} The proposal is designed to ultimately achieve an hourly savings of approximately 42.7 MCFH after an installation period spanning 3 years (2021-2023). Some NYSEG – sponsored marketing efforts are required to assist in achieving the customer acquisition goals; these costs are estimated and included in the BCA. The BCA ratio for this project by itself is 0.29. This project is part of the recommended final NPA solution portfolio.

2. Proposal Two

The second proposal offers the installation of a ground source heat pump and additional complementary energy efficiency solutions at one non-residential building, as proposed by the building owner to be installed in 2021. This facility is located in the second highest impact zone and would effectively save 0.41 MCFH in the moratorium area.¹⁶ The BCA ratio for this project is 0.04. This project is part of the recommended final NPA solution portfolio.

3. Proposal Three

The third proposal is from another HVAC installation company proposing a community loop ground source heat pump project with additional gas energy efficiency solutions. This community heat pump project targets a specific neighborhood in the highest impact zone, for a combined savings of 2.05 MFCH. Installation is anticipated to occur in 2021. The BCA ratio for this project is 0.13. This project is part of the recommended final NPA solution portfolio.

¹² For transparency, all proposals received are described in this section, including the proposals for which NYSEG stopped the review prior to completing the BCA. Proposals which are described in this section but for which no BCA was performed are designated as such in the descriptions, and information regarding those decisions is provided in Appendix D.

¹³ Due to the confidential nature of the submitted proposals, the information provided is not detailed enough to allow the potential identification of the developer submitting the proposal.

¹⁴ This proposal attempts to provide an option for all potential participants, including gas-savings options for those participants who do not opt for the fuel-switch choice from gas to electric heat pumps.

¹⁵ For more information about the zones of impact and their impact in the Lansing Gas Moratorium area, see the Appendix C to this document.

¹⁶ The actual savings at the customer facility will be more, but the location is further from the primary area of need, thus the results are discounted. For more information about the zones of impact and their impact in the Lansing Gas Moratorium area, see Appendix C to this document.

4. Proposal Four

The fourth proposal is for the installation of a geothermal heat pump and energy efficiency measures at a non-residential building located in the zone of highest impact. Although this project was completed in 2019, the proposer submitted their proposal prior to completion of their project and the proposed MCFH savings were not in place when the last engineering analysis projecting the Lansing NPA need was published. This project is estimated to provide a reduction of approximately 1.8 MCFH. The BCA ratio for this project is 0.06. This project is part of the recommended final NPA solution portfolio.

5. Proposals Five and Six

The fifth and sixth proposals were submitted by one developer for two buildings owned by a public authority in Lansing, located in the zone of highest impact. There are two proposals described here; each proposal is a different way of addressing the gas use at both buildings, and the proposals are mutually exclusive. In other words, the proposals accomplish the same things, but the first proposal utilizes a more efficient set of gas boilers, and the second proposal utilizes a ground source heat pump. NYSEG can choose either proposal but not both because they employ different solutions for the same facilities.

The first proposal offers gas energy efficiency solutions at both buildings (including new energy efficient natural gas boilers at one building) to be installed in 2020 and 2022 with a total savings of 4.08 MCFH after the project is complete. The BCA ratio for proposal five is 0.10, and it is part of the recommended final NPA solution portfolio.

The second proposal offers gas energy efficiency solutions at both buildings and fuel-switching to an electric heat pump at one of the buildings. Installation for the second proposal is anticipated to take place in 2020 and 2022 with a total of 6.2 MCFH saved after the project is complete. The BCA ratio for proposal six is 0.07; proposal six is not part of the recommended final NPA solution portfolio.

6. Proposal Seven

The seventh proposal is for an industrial heat recovery solution in the zone of highest impact, which would save 5.3 MCFH and would be completed in 2021. The BCA ratio for this project is 2.60. This project is part of the recommended final NPA solution portfolio.

7. Proposal Eight

The eighth proposal involves several non-residential customers identified in the zone of highest impact for which the developer will undertake fuel switching from natural gas to electric, dispatched when needed (and switched back to natural gas after each dispatched “reliability event”). This gas demand response solution would save 1.42 MCFH after the installations in 2021. The BCA ratio for this project is 0.29. This project is not part of the recommended final NPA solution portfolio.

8. Proposal Nine

The ninth proposal is a smart thermostat gas demand response solution. The developer would target participants in the zone of highest impact with an installation plan that begins in 2021 and operates

through 2025 projecting a total of 2.0 MCFH saved. NYSEG marketing efforts are requested by the developer. NYSEG would also need to create and implement a gas demand response program for this solution to be utilized. The BCA ratio for this project is 0.02. This project is not part of the recommended final NPA solution portfolio.

9. Proposal Ten

The tenth proposal involves the installation of proprietary heat pumps targeted to customers across all three zones beginning in 2021 and operating through 2023. The proposal requests NYSEG marketing efforts and suggests a total savings of 1.4 MCFH at the end of the three years. The BCA ratio for this project is 0.11. This project is not part of the recommended final NPA solution portfolio.

10. Proposal Eleven

The eleventh proposal offers a proprietary fuel cell solution for residential and commercial customers. The proposal also suggested hydrogen injection to the NYSEG natural gas distribution system. The proposal was targeted to the Lansing zone of greatest impact. This proposal did not meet the requirements to move on to the BCA evaluation step. Appendix D contains additional information. This project is not part of the recommended final NPA solution portfolio.

11. Proposal Twelve

The twelfth proposal consists of hydrogen generation and injection into the NYSEG gas distribution system. The developer proposed one injection site in the highest zone of impact, and one injection site in the second highest zone of impact. At this time NYSEG does not believe that injection of hydrogen gas or a mixture thereof, into its system meets the requirements of a reliable, proven technology for the purposes of this RFP, and therefore the proposal did not meet the requirements to move on to the BCA evaluation step; see Appendix D for additional information. This project is not part of the recommended final NPA solution portfolio.

12. Proposal Thirteen

The thirteenth proposal offered CNG delivery with on-site compression and decompression capabilities. This solution would provide 120 MCFH for the entirety of the 10-year contract, commencing in 2021. The proposal did not meet the requirements to move on to the BCA evaluation step; see Appendix D for additional information. This project is not part of the recommended final NPA solution portfolio.

13. Proposal Fourteen

The fourteenth proposal was a LNG solution that would supply the total 120 MCFH for the entirety of the 10-year contract, commencing in 2021. The BCA ratio for this project is 0.95. This project is not part of the recommended final NPA solution portfolio.

14. Proposal Fifteen

The fifteenth proposal consisted of two variations, both offering a LNG solution that would supply the total 120 MCFH. Both solutions would be available for the entirety of the 10-year contract,

commencing in 2021. One variation offers the benefits of Renewable Natural Gas (“RNG”) attributes for an additional cost, while one did not. The proposal that did not offer RNG attributes yielded a BCA ratio of 1.12, and the proposal that offered RNG attributes had a .86 BCA ratio. Neither of these proposals are part of the recommended final NPA solution portfolio.

15. Proposal Sixteen

The sixteenth proposal includes education and outreach in the Lansing School District area coupled with an “extra” heat pump incentive for interested households who switched from NYSEG natural gas heating and/or water heating to electric heat pumps, on top of the existing NYSEG energy efficiency heat pump incentives. Targeted to audiences within the highest impact zone, the project is planned to operate for 5 years. The program delivery model includes attracting participants through school-based education as well as community outreach, and suggests a total savings over the 5 years of 9.7 MCFH via the residential conversions which received rebates. The BCA ratio for this project is .43. Key education and outreach elements of this project are part of the recommended final NPA solution portfolio.

V. Proposed Solution to Lansing System Needs

A. Portfolio Development

During the Lansing NPA Proposal review it was determined that all CNG/LNG proposals met the entire 120 MCFH supply/reduction goal and that no non-CNG/LNG proposal met the entire goal. However, CNG/LNG projects are not being recommended to move forward due to local concern for resulting safety and environmental issues. NYSEG believes that inclusion of CNG/LNG projects would generate public opposition which may result in significantly increased costs and delays.¹⁷

The strategy for creating the portfolio from non-gas proposals sought to achieve the highest MCFH savings potential (56.34 MCFH), with the greatest customer impact and the most diverse set of solutions, with developer costs which were less than or equal to the Compressor Project costs. This portfolio solution achieves all those goals while keeping the total developer cost of the projects within the portfolio to NYSEG at less than the avoided cost of the compressor project.

Multiple vendors with proposals that remained in consideration for the portfolio were competing in some way for the same residential gas heating and hot water customer base. These overlapping vendor proposals provided varying levels of MCFH savings, offered more or less complete and viable programs, and requested varying levels of NPA financial assistance. For these reasons, when selecting the proposals to be included in the portfolio, two additional criteria were considered to eliminate projects with overlapping target customers: (1) whether the proposal provides a complete and viable program, which can be expected with confidence to yield the natural gas MCFH projected savings; and (2) would the proposal detract (or compete) from the opportunity for other proposals to achieve a greater natural gas

¹⁷ On March 16, 2018, the Tompkins County Legislature passed resolution 2018-55, “Resolution Opposing the Use of Compressed Natural Gas (CNG) or Liquefied Natural Gas (LNG) in Response to New York State Electric and Gas's Non-pipe Alternative Request for Proposal”, in which Tompkins County opposed the injection of CNG or LNG as a non-pipe alternative solution in response to NYSEG’s non-pipe alternatives RFP.

MCFH projected savings that which is proposed by the “detracting” proposal. Proposals for which a positive response to (1), and a negative response to (2) were selected and other projects were not.

B. Description of portfolio

The NPA portfolio solution consists of varying technologies from heat pumps to heat recovery, gas energy efficiency measures to education and outreach programs. Table 1 below identifies the individual proposals chosen and provides their project summaries.

Table 1¹⁸

Proposal #	Technology Type	MCFH Reduction	Cost	Location
1	Residential heat pumps	42.70	-	Zone 1
2	Single commercial ground source heat pump	0.41	-	Zone 2
3	Community ground source heat pump	2.05	-	Zone 1
4	Single commercial geothermal heat pump	1.80	-	Zone 1
5	Energy efficiency at two schools	4.08	-	Zone 1
7	Industrial heat recovery	5.30	-	Zone 1
16	Education & outreach program	0 ¹⁹	-	Zone 1
	Totals	56.34	\$9,625,978	Zones 1 & 2

¹⁸ Individual developer costs are considered confidential information and are not shown here.

¹⁹ Although this proposal as included in the portfolio is not expected by itself to yield direct savings, it is chosen to complement and to help to ensure the other proposals can achieve their projected savings.

In some cases, award dollars to be offered will differ from the original bid price. An average cost per MCFH saved across similar projects was identified and used in the BCA analysis to achieve the desired portfolio balance. Project 16 is included in the portfolio with no MCFH savings because this project is thought to complement the other proposals and should help build community support, which covers school and potentially community-based outreach, for the entire Lansing NPA project.

C. BCA Results

1. BCA Process

NYSEG has and continues to work with a consultant on a working tool/model for calculating BCAs for individual and portfolios of NPA proposals. The Company's BCA model for NPA utilizes NYSEG's Gas BCA Handbook.²⁰ The working BCA model utilizes software (known to users as the "ProCESS model"), which is primarily built on a proprietary software platform with Excel inputs and outputs. The inputs include:

- The "Input Template" which is an Excel workbook tailored with general inputs from NYSEG's BCA Handbook, as well as project specific inputs for each NPA project.
- The "Data Request Template", which is an excel workbook which each developer receives electronically and uses to populate their own project specific data – to be imported by NYSEG into the Input Template. Populating the Data Request Template was a requirement for developers who responded to the Lansing NPA RFP II. The ProCESS model Input Template is uploaded to the software platform where the data is analyzed based on parameters set forth in NYSEG's Gas BCA Handbook.
- The "Output Template" records the results of running the model for each developer's Data Request Template and can also record the results for a portfolio or portfolios of developer projects.

For each individual proposal NYSEG reviewed the data request template that was submitted with the RFP response for completeness, accuracy and consistency between the template and the written proposal. NYSEG also cross-referenced data between the Data Request Templates received from different developers where information was provided for similar technologies to be consistent in evaluations. Internal research and additional rounds of questions were sent to developers seeking clarification on inconsistencies or missing data within the templates.

Next, responses were run through the ProCESS model as individual projects to determine the initial BCA ratio for each project individually. Once all individual BCA analyses were completed and verified, NYSEG created and evaluated portfolio options with the BCA tool comparing portfolios' combined cost-effectiveness and total MCFH projected to be saved.

2. SCT Benefits and Costs Utilized

²⁰ As noted in the 2020 Joint Proposal, NYSEG proposes to work with other New York utilities, DPS Staff ,and other interested parties to develop a state-wide Gas BCA handbook.

The SCT is the primary measure of cost-effectiveness utilized in the BCA for the Lansing NPA RFP responses. Once project costs and benefits have been appropriately identified and evaluated by NYSEG, the SCT is used to assess the overall costs and benefit of the project to society, and to assess the relative benefits of competing projects. Table 2 further summarizes the SCT.

Table 2 - Societal Cost Test Definition²¹

Cost Test	Market Perspective	Key Question Assessed	Calculation Approach
Societal Cost Test (SCT)	Society	Is the State of New York better off as a whole?	Broadest measure. Includes direct costs and benefits of project (e.g., capital costs, avoided upstream supply costs) but also broader externalities associated with the program (e.g., CO ₂ and other net non-energy benefits). Calculation considers New York residents as a whole.

3. Benefits Defined

An array of benefits is evaluated under the SCT because their impact can be applied to society as a whole. The specific benefits used in this analysis include:

- ***Avoided Upstream Supply benefits*** are benefits derived from avoiding the need to acquire or invest in infrastructure or incremental supply resources that deliver gas to the NYSEG citygate (e.g., interstate pipeline capacity or delivered services). These generally consist of avoided fixed costs (e.g., capital expenses and/or demand charges) and associated avoided variable costs (e.g., volumetric charges for the costs associated with the physical delivery of natural gas molecules to the citygate).
- ***Avoided distribution infrastructure benefits*** result from distribution load reductions (or supply resources) that are valued at a distribution system infrastructure’s marginal cost that is avoided or deferred by an NPA project or program. In August 2017, NYSEG petitioned the PSC to allow a compressor project. The petition was approved in November 2017. With the issuance of the second RFP in December 2019, the decision was made to use the most recent estimated full cost of the Lansing compressor project alternative as the value of the avoided distribution capacity infrastructure benefit. This avoided distribution infrastructure benefit value was apportioned to individual projects based on the individual project’s proposed MCFH savings over the total savings of 110 MCFH. 110 MCFH was used for the peak period need in place of the 120 MCFH reduction which was referenced in the second RFP, because the Lansing NPA need will be reduced due to East Shore Drive project, once it is completed. With the completion of

²¹ Page 30, Benefit Cost Analysis (BCA) Handbook /Version 3.0; NYSEG-RGE BCAH V3.0 06-30-2020, June 6, 2020.

the project, the equivalent of 10 MCFH is estimated to be saved and therefore works to lower the MCFH requirement for the NPA portfolio solution.

- ***Avoided distribution O&M benefits*** include variable operation and maintenance benefits on the distribution system realized from a proposed program or project.
- ***Reliability/resiliency benefits*** of NPA projects and programs reflect how these programs and projects affect overall system reliability and ability to maintain system standards and recover from system outages.
- ***Avoided CO2 emissions benefits*** account for avoided CO2 emissions due to a net reduction in natural gas use or replacing gas consumed with RNG (where CO2 emissions are reduced via the fuel's creation).
- ***Other avoided methane emissions benefits*** account for the value of avoided methane emissions from reduced losses on the gas delivery system.
- ***Other non-energy benefits*** cover other benefits (or reduced costs) accruing to the utility related to other non-commodity aspects of a proposed project or program.
- ***Other external benefits*** may also include land or water benefits associated with a project or program. In general, other external benefits would only apply to the SCT. To the degree these benefits exist but are not readily quantifiable, their impacts may be qualitatively assessed.

4. Costs Defined

An array of costs is evaluated under the SCT because their impact can be applied to society as a whole. The specific costs used in this analysis include:

- ***Program administration costs*** include the cost to administer and measure an NPA program or project. This may include the cost of incentives, marketing and outreach, measurement and verification, and other program administration costs to start and maintain a specific program.
- ***Incremental distribution system investment costs*** include those costs incurred by the utility to support the NPA project or program. These are distinct from program administration costs and can include incremental distribution system infrastructure costs, including O&M on the distribution system, any capital or other direct expenses (e.g., special meters, monitoring systems, and/or upgrades), opportunity costs associated with any utility-owned land or infrastructure granted or dedicated to the project, and indirect administrative costs related to the program (i.e., its impact on broader administrative costs).

- **Participant NPA costs** are costs that would be incurred by providers of NPA services, less incentives recognized in program administration costs. For the purpose of performing the BCA, participant NPA costs are applied net of rebates and incentives that have been accounted for under program administration costs. The participant NPA costs include the installed cost of the device or system and any ongoing O&M expenses to provide the solution. Installed costs include the capital cost of the equipment, other capital investments required by the installation, and labor for the installation. Actual participant NPA costs will vary by project based upon several factors specific to each project. In this case, NPA Participant DER Costs are gross project costs, not incremental project costs, because NYSEG believes that it is correct to assume projects that result from the NPA RFP would be “early retirement” projects, not at the end of the equipment’s useful life. This allows the total project cost to be evaluated as it affects society as a whole.
- **Alternative fuel costs** include the cost of using an energy source other than natural gas. For example, fuel switching in the form of consumers installing electric heat pumps in place of traditional natural gas boilers is a measure to reduce the demand for natural gas.
- **Alternative fuel CO2 emissions costs** include the emissions generated from producing the alternative fuel and from the end use of the alternative fuel by the consumer.
- **Alternative Fuel Other Emissions costs** covers other emissions costs (other than CO2) associated with using an energy source other than natural gas to replace the service provided by natural gas.
- **Net non-energy costs** are other, non-commodity impacts on the utility’s costs resulting from an NPA project.
- **Other External Costs** covers external costs not addressed in other categories, including land and water impacts associated with an NPA program or project. To the degree these benefits exist but are not readily quantifiable, their impacts may be qualitatively assessed.

5. Collaborative Treatment of NPA and Energy Efficiency Benefits and Costs

The second Lansing NPA RFP allowed respondents to “stack” incentives. In other words, respondents could propose projects that not only requested NPA funding, but also planned to utilize other available incentives that are available through NYSEG or other entities. These other available incentives primarily include NYSEG Energy Efficiency (“EE”) incentives for heat pump technologies. Following a review of the costs and benefits being considered in both the NPA program’s and the EE program’s BCAs, the decision was made to omit or reduce certain applicable costs or benefits for all residential heat pump NPA proposals, in an effort to ensure that no costs or benefits were double counted between the NPA and EE BCAs.

- **Emissions Benefits** - EE included avoided CO2 emissions in their BCA, so NPA removed avoided CO2 emissions from their BCA. EE did not include a benefit for

avoided SOX, NOX, and CH4 emissions; therefore, the NPA BCA will include a benefit for these avoided emissions.

- **Cooling/Heating Costs and Benefits** - EE included electric heating and cooling costs and benefits (i.e. the reduction or increase in gas or electricity costs) therefore, these costs and benefits were removed from the NPA BCA. The EE BCA did not include peak MCFH benefits for heat pump installations; therefore the NPA BCA will include this benefit since all heat pump installations under the NPA program replace natural gas equipment.
- **Treatment of Participant Incremental Cost (Participant DER Cost)** - NPA Participant DER Costs are gross project costs, not incremental project costs, because NYSEG believes that it is correct to assume projects that result from the NPA RFP will be “early retirement” projects, not replacements at the end of the equipment’s useful life. The EE BCA is performed with the assumption that EE rebates are for projects that replace equipment at the end of the equipment’s useful life. Therefore, EE uses the incremental cost of the project in their BCA. Since it will be accounted for in the EE BCA, the incremental cost amount has been removed from the Participant DER cost in the NPA BCA.

D. Proposed Portfolio Solution

1. Recommended Portfolio

As part of the second Lansing NPA RFP, NYSEG evaluated proposals individually and in various portfolios of proposals to determine the combination of projects which was the most cost-effective with the highest amount of realistic MCFH savings, with Developer costs which were not more than the Compressor Project cost. This included the addition of NYSEG costs as applicable (i.e. program administration, construction, and marketing). NYSEG recommends the portfolio of proposals shown in Section D.2. which encompasses proposals received from seven respondents. Some projects included in the proposals may reflect savings or developer costs (or both) which have been adjusted in either the proposal analysis or the final portfolio design. In summary, the selected portfolio characteristics are:

- Highest MCFH savings potential (56.34 MCFH);
- Highest customer impact;
- Diverse set of solutions; and
- Developer resource cost totals \$9.6M < compressor project cost - \$11.8M.

2. BCA Results of Proposed Portfolio Solution

The recommended Lansing NPA portfolio is made up of seven separate proposals. The technologies included in this portfolio of proposals are:

- Industrial Heat Recovery;
- Residential Heat Pumps;
- Community Loop Heat Pumps;
- Gas Energy Efficiency;

- Education & Outreach;
- Non-Residential Ground Source Heat Pump; and
- Non-Residential Ground Source Heat Pump & Energy Efficiency.

Since the Lansing NPA is one of the first pilot projects of this kind in the state of New York, NYSEG held various collaborative meetings with DPS Staff to ensure consonance with the logic of the calculations utilized, including the benefits and costs which directly impact the BCA. During this collaboration, NYSEG was advised to evaluate the BCA for the portfolio solutions two ways: (1) using CH4 benefits; and (2) not using CH4 benefits. Accordingly, the Portfolio BCA results are shown below. Please note that the calculations of CH4 emissions shown below are estimated to come from line losses and not from any other source.

SCT BCA Ratio *with* CH4 Emissions Reductions
Emissions Reductions

SCT BCA Ratio *without* CH4

Total Societal Benefits	Total Societal Benefits
\$ 14,632,883	\$ 14,626,055
Total Societal Costs	Total Societal Costs
\$ 24,697,134	\$ 24,697,134
SCT Ratio 0.59	SCT Ratio 0.59

Overall, the portfolio’s benefits differ by \$6,828 due to the inclusion and removal of the CH4 savings. However, the portfolio’s total MCFH savings and total societal costs remain unchanged at 56.34 MCFH saved and \$24,697,134²², respectively, both yielding a BCA of 0.59.

Although, the BCA is 0.59, NYSEG recommends this portfolio of proposals be implemented. This portfolio proposal: (1) increases the reliability of service to existing customers in the Lansing area; (2) is consistent with and progresses toward the CLCPA goals of reducing emissions by 85% by 2050; (3) supports the goals in the 2020 Joint Proposal in which NYSEG commits to a goal of no net new increase in gas utilization; and (4) it supports local environmental advocacy which makes a poignant case for solutions which do not increase natural gas utilization in the area.

3. Qualitative Benefits

As noted in the definition of benefits applicable to the SCT, other external benefits exist but are not readily quantifiable; their impacts may be qualitatively considered. The proposed NPA solutions are

²² The portfolio’s total societal cost equals \$24,697,134, whereas the Developer Resource Costs within that portfolio total \$9,625,978.

working towards achievement of critical CLCPA GHG reduction initiatives. They support the carbon reduction and environmental emission goals of CLCPA by advocating for broad scale decarbonization. The CLCPA requires New York to adopt measures to reduce statewide GHG emissions 40% from 1990 levels by 2030 and 85% from 1990 levels by 2050.

There are other state policies/goals that the NPA portfolio of projects will support as well. These include the goals in the January 2020 heat pump/energy efficiency order²³ for conversions to heat pumps and other energy efficiency goals. NYSEG's 2020 Joint Proposal also contains a number of environmentally salient goals. The Lansing NPA project should be viewed as a pilot/demonstration project for NPAs in New York. It is the first such project for NYSEG and the net cost proposed is reasonable for a pilot which will provide learning and input into future similar NPA efforts. The NPA solutions further the 2020 Joint Proposal goal of no net increase in natural gas usage. A successfully concluded Lansing NPA project will positively impact the above environmental policies and/or regulatory programs.

In the interest of improving the reliability in the moratorium area, another qualitative benefit of some of the smaller projects within the portfolio is that they are direct install projects with a known customer or customers that developers have already been in contact with. These already existing relationships should increase the portfolio project's potential for success, which will increase the reliability of the Lansing natural gas distribution system in the moratorium area.

VI. Portfolio Implementation

A. Timeline for project implementation

The timeline for each NPA project component's implementation varies, which will result in phased implementation of the complete portfolio. Proposal 1 has an installation period spanning over three years, beginning in 2021 through 2023 for their residential heat pumps and gas energy efficiency measures. Proposal 2 and Proposal 3, both residential heat pump installations, are targeted to be completed in 2021. Proposal 7, a heat recovery project, will be completed in 2021. Proposal 4, also a nonresidential heat pump installation, was completed in 2019. Proposal 5 has two installation phases for gas energy efficiency measures, one to be completed in 2020 and the other in 2022. Proposal 16, which is the marketing and outreach program is expected to run for five years, beginning in 2021 through 2025.²⁴

B. Contracting

Each successful proposal in the Lansing NPA portfolio will result in the applicable entity entering into NPA agreements with NYSEG. Each entity will have its own contract with NYSEG. Each contract will contain measurement and verification requirements and performance measures specific to that developers' proposal and the expectations set forth in it. The timeline for completion of the NPA projects will also vary based on the time required to secure agreements with the individual proposal developers.

²³ Case 18-M-0084 - In the Matter of a Comprehensive Energy Efficiency Initiative, Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios Through 2025 (issued Jan. 16, 2020).

²⁴ The outreach and marketing activities to be conducted through proposal 7 are intended to extend beyond the potential timelines for other projects, to reinforce activities and behaviors and to offer support for projects should the timeframes need to be extended.

VII. Regulatory Treatment of NPA Costs

A. Description and treatment of NPA costs from the NYSEG 2020 Joint Proposal

As noted above, the 2020 Joint Proposal contains cost recovery provisions applicable to NPA costs that authorizes the Company to recover costs associated with the Lansing NPA consistent with the provisions of the 2020 Joint Proposal. Specifically, the 2020 Joint Proposal provides that: “The Companies will recover costs of their NWA and NPA programs as follows:

- (1) General NWA/NPA costs not applicable to specific NWA/NPA projects will be considered O&M expenses.
- (2) Applicable for NWAs, not reproduced here.
- (3) Costs incurred by the Companies for implementation of new NPAs during the Rate Plan will be deferred with carrying costs.²⁵ Recovery of such costs will be amortized over the anticipated “used and useful” life of installed assets and equipment with offsetting credits to the extent that an NPA Project defers the need for a traditional infrastructure project included in the Company’s Average Gas Plant in Service Balance. NPA projects without a clearly measurable period for amortization shall use a 20-year default amortization period. During the term of the Rate Plan and until base rates are reset, the amortized portion of such costs will be recovered through a separate surcharge. Any unamortized costs plus carrying charges will be incorporated into base rates when gas base rates are reset.
- (4) Costs incurred by the Companies to advance wires or pipeline projects which are ultimately deferred or avoided by an NWA or NPA would be deferred for future recovery and would remain in Construction Work in Progress until addressed in a future proceeding.”

VIII. Conclusion

A. Review of Lansing Natural Gas Distribution System Reliability Concerns

In summary, on November 16, 2017, the NYPSC directed NYSEG to seek innovative alternatives to the proposed Lansing/Freeville Reinforcement Gas Pipeline Project. After an initial RFP and subsequent RFI, a second RFP was published on December 4, 2019. It was sent to more than 3,600 recipients and published on NYSEG’s website. NYSEG received expressions of interest from 55 entities and ultimately received proposals from 15 different entities. The proposals leveraged various technologies, utilized different programs and methods, and had a range of resulting impacts and costs.

The RFP target was 120 MCFH of additional supply and/or demand reduction. Certain proposals utilizing new supply of natural gas (CNG, LNG) were proposed to meet this target fully. However, as noted previously, these proposals are not being further considered.

²⁵ Carrying costs shall be at the pre-tax weighted average cost of capital per Appendix S, Schedule 1, P. 5 of the 2020 Joint Proposal.

B. Proposed Portfolio Designed to Mitigate Lansing Reliability Concerns

NYSEG selected the final portfolio of projects to include in the Lansing NPA Portfolio because their combination results in the highest MCFH savings, highest customer impact, and has a diverse set of solutions. This portfolio will have the following attributes:

- Number of projects: 7;
- Total projected supply reduction: 56.34 MCFH;
- Anticipated NPA Developer costs: \$ 9,625,978;²⁶
- Portfolio BCA result: 0.59; and
- As requested in the NPA RFP, resources to begin being placed in service: November 2021 (or sooner).

Impact of System Improvements and NPA Portfolio on system design day MAOP:

- Current design day MAOP – 11.33%;
- + East Shore Drive Project – moves up to 36.17% (the equivalent of a 10 MCFH addition); and
- + East Shore Drive Project + NPA Portfolio – moves up to 43.62%.

C. Proposed Lansing NPA Cost Recovery

For the above-stated reasons, NYSEG requests that the Commission authorize NYSEG to undertake the Lansing NPA portfolio of projects described herein and to recover the costs associated with these projects in the manner set forth herein.

Respectfully Submitted,

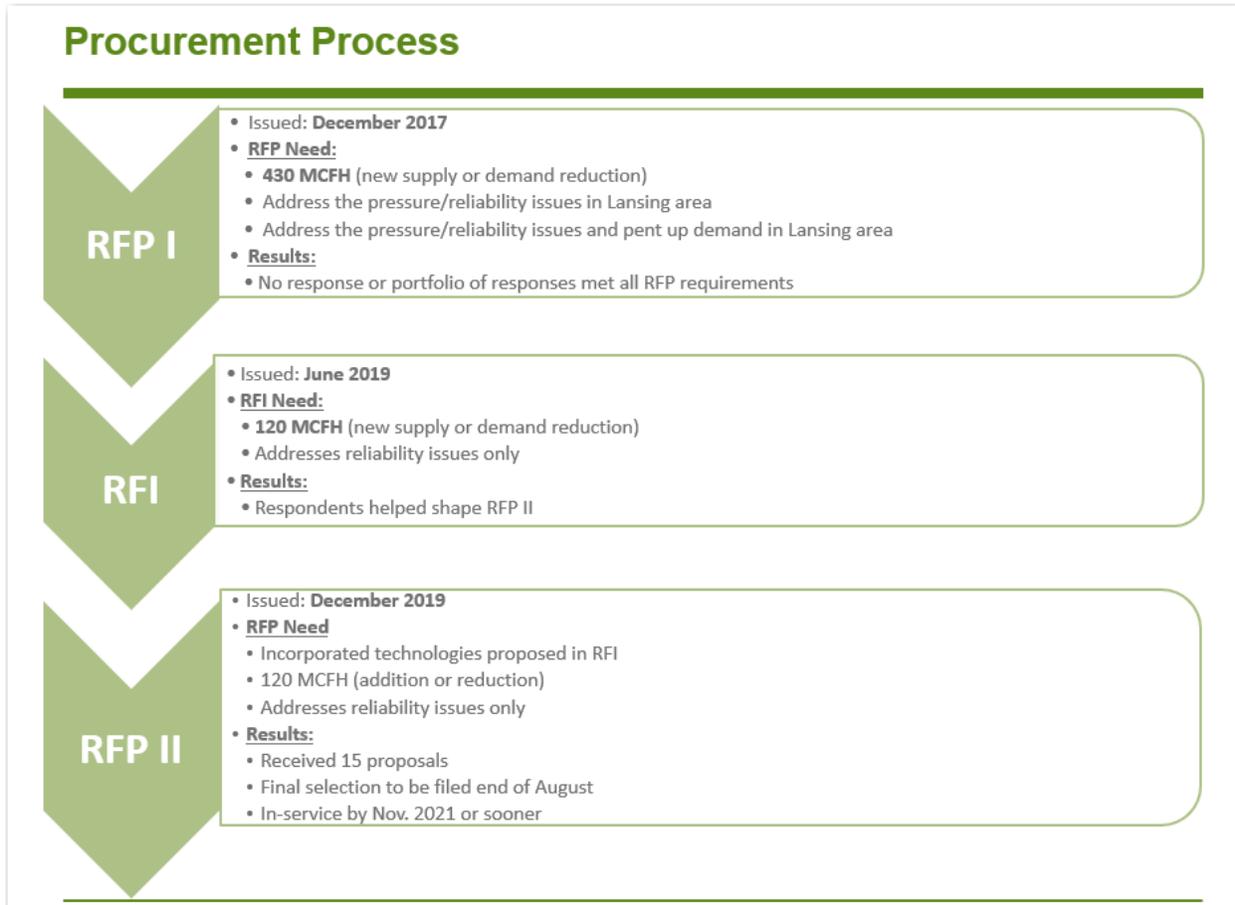


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²⁶ Please see footnote 17.

Appendix A– Summary of Lansing NPA Procurement Activities





Mark O. Marini
Director - Regulatory

February 9, 2015

VIA ELECTRONIC SERVICE

Honorable Kathleen H. Burgess, Secretary
New York State Department of Public Service
3 Empire State Plaza, 19th Floor

Albany, NY 12223

Dear Secretary Burgess:

In accordance with the New York State Electric & Gas Corporation ("NYSEG" or the "Company") Gas Tariff (PSC 90, Leaf No. 86, Section 10. Conditions of Gas Service, Provision J), the Company hereby advises the New York State Public Service Commission ("PSC" or the "Commission") that it is unable to accept additional applications for gas service from new or existing customers in portions of the Ithaca franchise area.

The Company continues to receive requests for incremental natural gas services from both new and existing customers in its Ithaca franchise area. Due to current pressures on the distribution system on cold weather days and design-day predicted pressures in the Lansing area, NYSEG cannot provide the requested incremental natural gas service at this time. The area where NYSEG cannot provide incremental service is in the Town of Lansing as bounded by the lake on the west and NYS Route 13 on the south. This area is shown on the attached figure. NYSEG started work in 2014 on the Lansing/Freeville reinforcement project along West Dryden Road. NYSEG is actively working on obtaining easements from residents along West Dryden Road. To date, NYSEG has obtained approximately half of the required 100 easements. The residents own to the centerline of the road and many residents have denied NYSEG the requested 15' wide easement. The project includes 7 miles of 10" distribution main along West Dryden Road, a new regulator station at Warren Road to connect to NYSEG's existing distribution system, and a rebuild of Dominion Transmission's Freeville Gate Station serving NYSEG. NYSEG did consider other reinforcement options prior to this project and is currently re-evaluating based on the possible need for condemnations along West Dryden Road. NYSEG will continue to consider all available options in an effort to accommodate future service requests.

Appendix B - Lansing Gas Moratorium Letter

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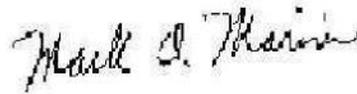
Honorable Kathleen H. Burgess, Secretary

Page 2

February 9, 2015

The Company will keep PSC Staff informed of any further developments regarding requests for new or increased gas service.

Respectfully submitted,

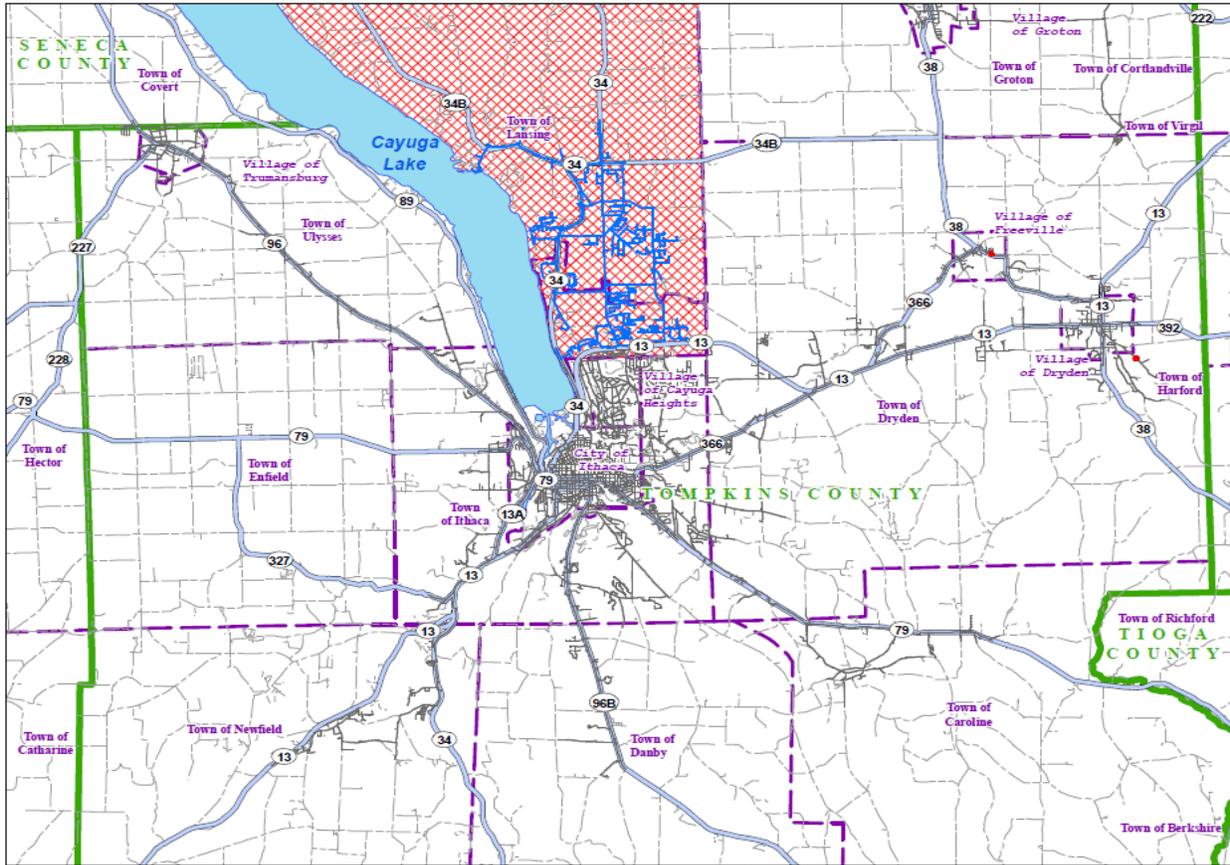


Mark O. Marini

Attachment

CC: Cindy McCarran - Deputy Director, Gas and Water

Appendix B– Lansing Gas Moratorium Letter



Appendix B – Lansing Gas Moratorium Letter

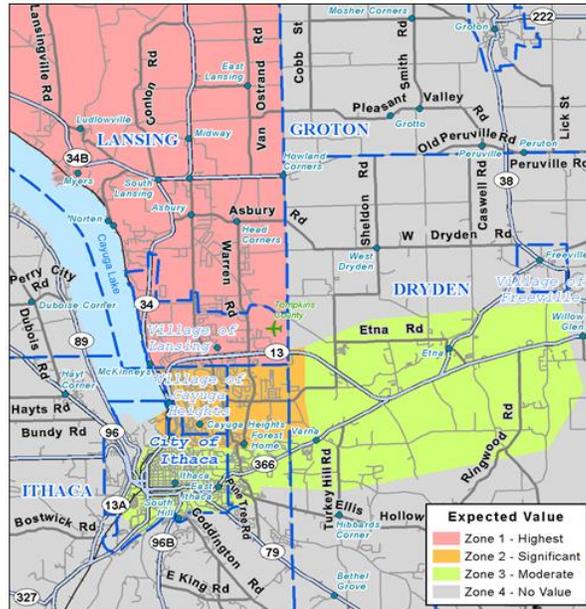


Background

Areas of Impact to Lansing Gas Moratorium

Figure shows expected impact value of NPA solution based on the location

- Zone 1- Highest
- Zone 2- Significant
- Zone 3- Moderate
- Zone 4- None



Appendix D – Documentation of Decisions Not to Conduct BCA for 3 Proposals

Proposal #11 (Natural Gas Powered Fuel Cell)

- This proposal would consume natural gas to make electricity in a fuel cell, with some thermal output as well.
- This proposal does not project a reduction in the amount of natural gas expected to be consumed in the Lansing Moratorium area.
- After careful deliberation, this proposal was determined not to meet the needs outlined in the 2019 Lansing NPA RFP, so an internal decision was made not to continue to review the proposal through the BCA process.

Proposal #12 (Hydrogen Injection into Distribution System)

- The Lansing NPA RFP required that technologies proposed be proven reliable technologies.
- At this time, the viability of hydrogen gas injection into the NYSEG system is unknown and NYSEG does not have the experience or expertise on this technology required to use it as a solution to a reliability need, therefore NYSEG does not believe this proposal meets the requirements of a reliable, proven technology for the purposes of this RFP.
- After careful deliberation, this proposal was determined not to meet the needs outlined in the 2019 Lansing NPA RFP, so an internal decision was made not to continue to review the proposal through the BCA process.

Proposal #13 (NG compression, storage and CNG injection into Distribution System)

- The Lansing NPA RFP noted that NYSEG's system operating pressure in the Lansing area is 60 PSIG.
- In the Proposal #13 response to additional NYSEG questions, the developer noted that an inlet pressure of 300 pounds (PSIG) is required for their proposed system operation.
- After careful deliberation, this proposal was determined not to meet the needs outlined in the 2019 Lansing NPA RFP, so an internal decision was made not to continue to review the proposal through the BCA process.