

NON-WIRES
SOLUTIONS
QUARTERLY
EXPENDITURES &
PROGRAM REPORT

Q1-2018

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1.0 Background

On January 25, 2017, the New York Public Service Commission (“PSC” or “Commission”) issued its *Order Approving Shareholder Incentives* (“Incentives Order”), requiring, *inter alia*, that Consolidated Edison Company of New York, Inc.’s (“Con Edison” or the “Company”) Targeted Demand Management Program end on January 25, 2017,¹ and that, henceforth, any non-wires solution (“NWS”) project be completed under the NWS provisions of the rate plan adopted in the Con Edison Rate Case order (“Rate Case Order”) issued on the same date.² The Incentives Order provides a methodology for determining incentives that applies to large as well as small NWS projects under the NWS framework approved in the Rate Case Order. The Rate Case Order required the Company to submit quarterly reports to the Commission on NWS expenditures and program activity, including project costs, project in-service dates, incremental costs incurred, operational savings, and other benefits.

2.0 Executive Summary

The Company filed its Distributed System Implementation Plan (“DSIP”) on June 30, 2016, and outlined multiple opportunities where NWS projects might be suitable for implementation to defer or offset the need for a traditional project over the next five years.³ This quarterly report provides updated information on the NWS projects outlined in the DSIP and identifies and describes other opportunities not included in the DSIP. The new projects that have been identified are the Newtown, Parkchester, and Chelsea feeder opportunities. Details on these projects can be found below.

2.1 Costs and Recovery

No active NWS projects were being implemented and the Company did not incur any expenditure related to NWS projects during the first quarter of 2018.

2.2 Projects Summary

The Company is developing solicitations for NWS opportunities it has identified. Traditional projects are reviewed at the sub-transmission, area substation, and primary distribution feeder levels for potential NWS opportunities. Opportunities have been identified utilizing suitability criteria that evaluate the project type, such as load relief (or load relief and reliability), project timeline, and cost.⁴ The NWS opportunities identified in the DSIP were selected prior to the determination of the suitability matrix

¹ Case 15-E-0229, *Petition of Consolidated Edison Company of New York, Inc. for Implementation of Projects and Programs that Support Reforming the Energy Vision*, Order Approving Shareholder Incentives (“Incentives Order”) (issued January 25, 2017), p. 9.

² Case-16-E-0060, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service*, Order Approving Electric and Gas Rate Plans (issued January 25, 2017).

³ Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, Con Edison’s Initial Distributed System Implementation Plan (filed June 30, 2016).

⁴ Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, Joint Utilities Supplemental Information on the Non-Wires Alternatives Identification and Sourcing Process and Notification Practices (filed May 8, 2018).

and some of these projects do not pass the current suitability criteria. However, Con Edison has decided to continue to pursue some of these projects for potential NWS opportunities as they can provide additional useful lessons to the Company during the early stages of NWS development.

Large projects are those on a major circuit or substation level while small projects are at the primary distribution feeder level or below. Projects that were identified for potential implementation include:

Large Projects

- **The Glendale Area Station project (“Glendale Project”):** The current traditional project requires upgrading related sub-transmission feeders to facilitate a large load transfer of approximately 60 MW of load from the networks in the Brooklyn Queens Demand Management (“BQDM”) Area,⁵ which will alleviate the forecasted overload and create additional capacity for growth within the network. The original traditional project had also included installing a new transformer and 138kV supply feeder at the Glendale substation, but after subsequent analysis and ensuing reinforcements related to the Newtown Substation the Company determined those components are no longer necessary. The transfer is a traditional solution component of the overall BQDM Program.⁶ The Company determined that there is an opportunity to defer the Glendale Project beyond its originally proposed 2019 date through implementation of non-traditional solutions using remaining BQDM Program funding.⁷ On July 13, 2017, the Commission issued its *Order Extending Brooklyn/Queens Demand Management Program*,⁸ which allows the Company to implement non-traditional solutions that will defer the need for Glendale Project beyond 2019.⁹
- **West 65th Street No. 1:** The West 65th Street No. 1 substation supplies power to the Plaza network in Manhattan. The traditional solution involves bus upgrades at 65th Street No. 1, either upgrading synchronous bus sections or installing cooling for the synchronous busses to provide greater capacity. This project was originally needed in 2020; however, due to a decrease in the load forecast in the area, the project has been deferred beyond the 20-year planning horizon and there is no need for a NWS at this time.
- **Nevins Street:** Continued robust load growth in the Borough Hall network supplied by Plymouth Street and the Williamsburg and Prospect Park networks supplied by Water Street is projected to create deficiencies at both stations within the next 10 years. This requires that load be transferred out of both stations, i.e., Water Street and Plymouth Street, to a new area substation to be constructed at Nevins Street by 2025. Additional infrastructure investment is

⁵ References to Brooklyn-Queens Area in this filing refer to north central and eastern Brooklyn neighborhoods, including parts of Greenpoint, East Williamsburg, Bushwick, Bedford-Stuyvesant, Crown Heights, East Flatbush, Brownsville, and East New York, and southwestern Queens neighborhoods, including parts of Richmond Hill, Howard Beach, Broad Channel, Ozone Park, South Ozone Park, Woodhaven and Kew Gardens.

⁶ See Case 14-E-0302, Petition of Consolidated Edison Company of New York, Inc. for Approval of Brooklyn Queens Demand Management Program (“BQDM Petition”) (filed July 15, 2014).

⁷ Because the work will be funded with BQDM Program funding, it is not technically a NWS project being developed pursuant to the Rate Case Order.

⁸ Case 14-E-0302, *Petition for Extension of Time to Implement Brooklyn Queens Demand Management Program*, Order Extending Brooklyn/Queens Demand Management Program (issued July 13, 2017).

⁹ *Id.*, pp. 6-7.

also required to expand the existing Gowanus Switching Station by 2024 to supply the new Nevins Street station. As a result, a portfolio of non-traditional solutions that can defer or offset the need for the traditional set of projects, i.e., Plymouth Street and Water Street, would be classified as one large NWS, named Nevins Street. The Company is currently evaluating potential options to address this need.

- **Plymouth Street:** Plymouth Street Substation supplies power to the Borough Hall Network in Brooklyn. To alleviate the constraint using traditional infrastructure enhancements, a combination of two traditional solutions would be necessary. The first traditional solution involves installing additional cooling systems on the transformers at both the Plymouth Street Substation and at its supply station, Farragut Substation, as well as upgrading the 138 kV feeders associated with these transformers. Second, a 110MW load Transfer to the new Nevins Street substation area, is required by 2025. This project is a NWS opportunity and a Request for Proposals (“RFP”) was released for this project. Potential solutions are under evaluation.
- **Water Street:** Water Street Substation supplies power to the Williamsburg and Prospect Park Networks. The traditional load relief solution would involve installing cooling systems on the transformers at both Water Street Substation as well as its supply station, Farragut Substation. Additional load relief will be required in 2026, and the traditional solution is to transfer the entire Prospect Park network to the new Nevins Street substation area by 2026. This opportunity is a potential NWS and a RFP was released to the market. Potential solutions are under evaluation.
- **West 42nd Street Load Transfer:** To avoid projected overloading of the W. 42nd St. No. 1 Substation that supplies the Pennsylvania Network in Manhattan, the traditional solution is for load to be transferred from W. 42nd St. No. 1 Substation to Astor Substation by 2021. This project is planned to be done subsequent to the Pennsylvania Network feeder installation project, which is in progress. This project is being considered for a NWS opportunity and a RFP was released to the market. Potential solutions are under evaluation.
- **Newtown Transformer Installation Project:** Newtown Substation serves Sunnyside and Borden networks in Queens, NY. As per Con Edison’s analysis, this area is projected to see new load growth in the next 10 years and will require additional infrastructure reinforcement at Newtown Substation to meet the expected demand. The traditional load relief solution will be the installation of a transformer in Newtown Substation to be supplied by a new 138kV sub-transmission feeder. The area will need about 4 MW of load relief in the year 2022, and will increase incrementally over the next 10 years. Currently, Con Edison is performing an engineering review of the project and finalizing the project scope needed to develop the RFP.
- **Parkchester No. 1 Cooling Project:** Parkchester No. 1 Substation serves the Southeast Bronx network and requires about 6 MW of load relief in the year 2021 to meet the projected demand. The traditional solution would involve the installation of additional cooling systems on two area substation transformers to increase capacity. Currently, Con Edison is performing an engineering review of the project and finalizing the project scope needed to develop the RFP.

Small Projects

- **Columbus Circle Feeder Relief:** The Company forecasts that the Columbus Circle Network will experience overloads in the year 2021. A reduction in network demand by summer 2021 would potentially help address these overloads. The traditional solution would require feeder upgrades that address this need. Alternatively, acquisition of sufficient, cost-effective load relief at customer locations in the network through implementation of an NWS could alleviate the reliability need. A portfolio of solutions has been developed for potential implementation. The Company is currently engaged with solution providers to develop and finalize contracts.
- **Hudson Feeder Relief:** The Company estimates that the Hudson Network will experience overloads on some of its feeders in the year 2021. A reduction in network demand by summer 2021 would potentially help address the overload. The traditional solution would be to perform feeder upgrades to help address this need. Alternatively, reducing load at customer locations in the network through implementation of a NWS could allow for potential load relief in the network, therefore this project was a candidate for an NWS. However, after releasing a RFP to the market and a detailed analysis of the proposals received, Con Edison was unable to assemble a portfolio from the those proposals that would provide enough load reduction in a cost effective manner to be a viable NWS.
- **Williamsburg Feeder Relief:** Two feeders in the Williamsburg Network are projected to experience overloads operating at emergency ratings by the summer of 2020. The traditional solution would be to build additional conduit systems to accommodate upgraded feeders to supply the projected load growth. This feeder overload happened to be in the same area as the Water St non-wires projects. Hence a RFP for this project was released in conjunction with those two large projects. Potential solutions are under evaluation.
- **Flushing Cable Crossing Project:** The traditional project addresses capacity constraints at six feeder crossings in the Flushing load pocket located in Queens. The feeders cross multiple geographical obstructions, including the Grand Central Parkway and the Flushing River. Some of the crossing work is already underway; the latter stages of the project will be the focus of a potential NWS opportunity and a RFP has been released to the market. Potential solutions are under evaluation.
- **Chelsea Network Feeder Overloads:** Four feeders in the Chelsea network in Manhattan are projected to experience overloads of approximately 3.2 MW. Relief is needed in the network by the year 2021. The traditional alternative for this solution would be to build additional conduit systems to accommodate upgraded feeders to supply the load growth. Since Chelsea has a network configuration and the overloads are on the feeders, there is no one-for-one correlation of impact on the overload due to network configurations. Targeting specific customers supplied by these feeders will allow for load reductions through DER, and a RFP is being developed to be released to the market.
- **Yorkville Crossing Project:** This project involves bifurcating feeders at Hellgate Area Station in the Bronx serving Yorkville Network in Manhattan. Importantly, this project is needed for risk reduction to enable Con Edison to continue to meet its second contingency reliability design criteria for Manhattan Networks and is not a candidate for NWS.

On May 8, 2017, the Joint Utilities filed a supplemental DSIP Plan¹⁰ providing more information on the NWS identification, sourcing and notification process. Once an NWS project is identified, the Company will pursue opportunities through a variety of buying approaches, which were described in an updated NWS implementation and outreach plan¹¹ as required by the Rate Case Order.¹²

2.3 Operational Savings and Other Benefits

The Company defines “operational savings” as reductions in costs incurred or expected to be incurred by the Company for the operation of the electric sub-transmission and distribution system as a result of implementing NWS projects. Because the Company has not yet implemented any NWS projects, there are no operational savings to report.

3.0 Program Activity

The Company continues to evaluate, identify, and develop buying approaches for potential projects that could be pursued as an NWS. The Company will report on program activities once an appropriate NWS project has been identified and actions are undertaken to begin implementation.

3.1 Communication

The Company has identified seven NWS opportunities in the Company’s service territory. On April 10, 2017, RFP solicitation communications were sent to vendors, as well as posted in the applicable New York Department of Public Service (“DPS”) website(s). These communications were intended to alert the market to upcoming solicitations and the webinar that would be held to provide information on the NWS projects.

On April 10, 2017, the Company hosted the webinar, which garnered over 100 attendees and generated multiple questions during the Q&A session. In the webinar, the following issues were addressed:

- Background on NWS
- High-level end-to-end NWS process from project identification to project implementation
- Types of projects
- What to expect in the RFP
- What the Company would expect in RFP responses
- Evaluation criteria
- Steps to become enabled in Con Edison’s system to submit a response

¹⁰ Case 16-M-0411, *In the Matter of Distributed System Implementation Plans*, Supplemental Distributed System Implementation Plan.

¹¹ Case 16-E-0060, *Proceeding on Motion of the Commission sa to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service, Non-Wires Alternatives Implementation, Customer and Community Outreach Plan* (filed January 31, 2017).

¹² Rate Case Order, Appendix A - Joint Proposal, p. 30.

- Key items to note when submitting an RFP
- High-level timeline for release of the RFPs

The Company also created a webpage dedicated to providing the most up to date information on NWS projects as well as a central location for RFPs released for identified NWS projects.¹³ Furthermore, the Company has developed a Hosting Capacity webpage to provide potential respondents a visual interface for finding and applying to NWS projects.¹⁴

3.2 Market Solicitations

For the Company to properly evaluate RFP Responses, respondents were required to submit a fully completed proposal outlining their proposed solution in accordance with the specifications in the RFP. All responses were required to include the respondent's professional background and experience with the proposed solution, a detailed proposed solution description, a detailed project plan and timeline to implement the solution, detailed costs associated with the proposed solution, and an NWS questionnaire.

First Round

On April 25, 2017, the first round of RFPs were released on the Con Edison NWS website portal. The first two projects released were the Columbus Circle Feeder Relief and the Hudson Network Feeder Relief projects, discussed in Section 2.2 above. Responses to clarification questions submitted by interested parties were posted on the Con Edison NWS portal.

The deadline for the first round of RFP responses was scheduled for June 6, 2017, however an extension was issued to provide additional time for Distributed Energy Resource providers and the due date moved to June 23, 2017.

For Hudson Project, after detailed analysis, Con Edison was unable to assemble a portfolio from the proposals received that would provide enough load reduction in a cost effective manner to be a viable NWS. Therefore, the Company will not be moving forward with the Hudson NWS Project.

For the Columbus Project, the Company has developed a portfolio that can potentially be implemented and will be engaging with selected vendors to determine the project scopes.

Second Round

On October 31, 2017, Con Edison released a second round of RFP solicitations for the Water Street Cooling, Williamsburg Primary Feeder Relief, and Plymouth Street Cooling projects, with an emerging technologies carve out for a utility-sited solution opportunity. The deadline for the second round of RFP responses was scheduled for January 12, 2018.

On November 14, 2017 an NWS webinar was held to answer questions from the market regarding the projects being released in the second round of solicitations. Over 120 viewers attended the webinar.

¹³ www.coned.com/nonwires

¹⁴ <https://www.coned.com/en/business-partners/hosting-capacity>

The presentation used during the webinar is available on the non-wires webpage. The following topics were addressed:

- Round 2 NWS market solicitations
- What to expect in the RFP
- How RFP responses should be made
- A timeline of important round 2 dates
- The upcoming round of NWS projects being released
- Q&A session

Following the webinar, on December 1, 2017, Con Edison released answers to clarification questions for the second round of NWS RFPs. Additional responses to clarification questions were added on December 15, 2017. The Clarification Question Response Document is located on the Con Edison non-wires website. On March 26, 2018, the Company issued status update letters to the respondents.

The Company has evaluated the proposals and is working to develop a portfolio that can potentially be implemented.

Third Round

The third round of NWS RFPs was released on December 18, 2017. The projects included in this solicitation were Flushing Cable Crossing and West 42nd Street Load Transfer. The deadline for RFP responses was March 16, 2018.

The Company is currently evaluating the proposals and will work towards developing a portfolio that can potentially be implemented.