STATE OF NEW YORK PUBLIC SERVICE COMMISSION

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

Proceeding on Motion of the Commission as to the Rates,
Charges, Rules and Regulations of Consolidated Edison
Company of New York, Inc. for Gas Service

Proceeding on Motion of the Commission as to the Rates,
Charges, Rules and Regulations of Consolidated Edison
Case 13-G-0031
Company of New York, Inc. for Steam Service

Case 13-S-0032

COMMENTS OF THE CITY OF NEW YORK IN RESPONSE TO CONSOLIDATED EDISON COMPANY OF NEW YORK INC.'S STORM HARDENING AND RESILIENCY COLLABORATIVE PHASE TWO REPORT

November 10, 2014

COUCH WHITE, LLP 540 BROADWAY P.O. BOX 22222 ALBANY, NEW YORK 12201-2222 (518) 426-4600

PRELIMINARY STATEMENT

The resilience of utility infrastructure has gained substantial prominence over the past few years, and it was a core theme of the City of New York's ("City") testimony and position in Consolidated Edison Company of New York, Inc.'s ("Con Edison" or "Company") 2013 electric, gas, and steam rate cases. The City advocated for changes to the manner in which Con Edison approaches planning, design, construction, and operations, and it demonstrated both the need to address the effects of climate change and extreme weather events, and measures and techniques to make its infrastructure more resilient.

The City has been appreciative of Con Edison's acceptance of these issues, and of its extensive resilience-related actions. Indeed, many of the programs, projects, and measures that Con Edison is undertaking, or plans to undertake in 2015 and 2016, are consistent with the recommendations advanced by the City. These efforts should help to ensure that the Company's systems are better able to withstand future severe meteorological events and to quickly recover and resume normal operations after such events.

The Company's *Storm Hardening and Resiliency Collaborative Phase Two Report* ("Phase II Report"), which was filed with the Public Service Commission ("Commission") on September 2, 2014, is a positive development regarding its new approach to planning, design, construction, and operations. The City generally supports the plans, initiatives, and recommendations set forth in that Report, and it respectfully recommends that the Commission authorize Con Edison to proceed in accordance therewith, with three modifications.

First, Con Edison is in the process of installing pumps, back-up generators, and related equipment at its substations and other facilities to protect against and respond to flooding events and other adverse conditions. Almost all of these pieces of equipment operate on liquid

fuels that require on-site storage and replenishment by trucks. In light of the known risks that major storms present to the liquid fuel supply chain, Con Edison expeditiously should transition the existing equipment to natural gas firing, with liquid fuels serving as a back-up fuel source. For equipment to be installed in 2015 and beyond, the equipment should be installed with natural gas as its primary fuel source. An added benefit to this recommendation is the lower emissions associated with burning natural gas compared to liquid fuels.

Second, the resilience program developed in the rate cases, supported by the City and other parties and approved by the Commission, comprised a four-year plan for strengthening the Company's infrastructure. The funding was premised on completing all of the identified projects within that four-year period. During meetings of the Storm Hardening and Resiliency Collaborative ("Collaborative") this past summer, and in documents circulated to the Collaborative members, Con Edison has indicated an intent to unilaterally modify these agreed-upon plans and extend the time frame for completion of the projects to 2020. Absent a compelling demonstration that specific circumstances warrant a modest extension for specific projects, all of the work should be completed by December 31, 2016. Third, the City's risk assessment model should be incorporated into the risk assessment model being developed by Con Edison.

COMMENTS

POINT I

NATURAL GAS SHOULD BE THE PRIMARY FUEL FOR CON EDISON'S BACK-UP GENERATORS, PUMPS, AND OTHER SIMILARLY USED EQUIPMENT

Following Hurricane Sandy, and during the cold weather periods in January and February 2014, concerns with the adequacy and availability of liquid fuels within New York City became readily apparent. Not only were there shortages of such fuels, the ability to transport the

fuels from their storage depots to their points of use was also restricted. After Sandy, there were fewer problems with the supply and transport of natural gas. During the cold snaps, the availability of natural gas was a concern, but price was more of a concern than availability.

In the aftermath of Hurricane Sandy, the City developed policies and programs to improve the resilience of utility and other infrastructure throughout the City. In June of 2013, this effort culminated in *PlaNYC: A Stronger, More Resilient New York* ("Resiliency Report"). One section of that Report considered the liquid fuels system and how that system was affected during and after Sandy.¹ It then identified future risks to the system and set forth a suite of strategies to address those risks.²

Accordingly, the City advocated in the rate cases and in the Collaborative that backup generators, and pumps and other equipment needed to avoid and/or respond to an outage be connected wherever possible to the natural gas system, with reliance on liquid fuels serving as a back-up alternative.³ This approach also would eliminate or reduce harmful air emissions, which is consistent with State and City policy goals.⁴

As discussed in the Phase II Report, Con Edison's plans call for the use of liquid fuels as the primary fuel source for most or all of the back-up and site protective equipment. Con Edison noted that electric backup generators installed at its substations will have dual fuel (*i.e.*,

Resiliency Report at 133-142. The Resiliency Report is available at http://www.nyc.gov/html/planyc/html/resiliency/resiliency.shtml.

² *Id.* at 140-142.

Cases 13-E-0030, *et al.*, Consolidated Edison Company of New York, Inc. – Electric, Gas, and Steam Rates, Direct Testimony of New York City Gas and Steam Infrastructure Panel (dated June 3, 2014) at 24.

⁴ *Id. See also* 2014 Draft State Energy Plan, Volume 1: Shaping the Future of Energy at 23, 57 (describing the State's goals of reducing pollutants that impact public health).

natural gas and diesel) capability, with two exceptions.⁵ According to the Company, each site will store sufficient diesel fuel to support continuous generator operation for approximately 24 hours under full load, and it will make arrangements for replenishment thereafter.⁶ As to the City's recommendation that the Company use more reliable natural gas, the Company said only that it would evaluate the potential conversion of these units to gas supply, and that it will address this conversion in a Phase III Report to be filed with the Commission on or before September 1, 2015.⁷

Con Edison's installation of back-up generation, pumps, and associated equipment at its substations and other critical facilities is an appropriate action, and one the City fully supports. Such equipment should reduce the potential for flooding-related outages and expedite system restoration when flooding does occur. The use of on-site generation is also meritorious, as it will allow for continuous operation of the protective equipment even when power to the surrounding area is shut off. However, there is a weakness in the Company's approach because of its reliance on liquids fuels to run the equipment.

The weakness was demonstrated during Sandy, when access to off-site storage facilities was curtailed or significantly restricted. The fuel supply problems confronting New York City and the downstate area more broadly extended for multiple days. In the future, the reliance on liquid fuels could be problematic for at least five reasons: (i) Con Edison may not be able to access its off-site supply facilities due to damage or the loss of power to those facilities; (ii) Con Edison may not be able to secure sufficient transport capacity to timely replenish its on-site storage; (iii) there could be damage to roads or bridges that prevent the trucks from getting to the

⁵ Phase II Report at 35, n.28.

⁶ *Id*.

⁷ *Id*.

Con Edison sites; (iv) there could be damage or obstructions within the Con Edison sites that prevent access to the storage tanks; or (v) there could be damage to the storage tanks or fuel handling equipment.

An additional concern pertains to the emissions from burning liquid fuels, which can be higher than the emissions from burning natural gas (*e.g.*, particulates). State and City policies call for reductions in all types of air emissions, and although the equipment at issue would be used infrequently, there is no reason to disregard these policies.

Reliance on natural gas is superior to reliance on liquid fuels because it avoids the potential problems described above, and because of its lower emissions profile. The gas systems owned by Con Edison and National Grid extend throughout most of the City, so access to natural gas should not be a concern, except in a few outlying areas. As necessary, liquid fuels could be used as a back-up fuel source, if gas is not available.

Accordingly, the Commission should direct Con Edison to develop and implement a transition plan to convert its existing back-up generators and pumps to natural gas. For 2015 and thereafter, the Commission should require Con Edison to use natural gas as the primary fuel source for such equipment. These steps should enhance the resilience of the Company's infrastructure and are in the best interests of the Company, its customers, and New York City, generally.

POINT II

ALL RESILIENCE PROJECTS IDENTIFIED DURING THE RATE CASES AND IN THE COLLABORATIVE PROCESS SHOULD BE COMPLETED BY THE END OF 2016

The Company's resilience plan covers the period January 1, 2013 through December 31, 2016.⁸ The City has supported such investments, in part, because that timeframe represents a reasonably-paced response to the present and continuing threat of severe climate events. Although resilience considerations should remain a central feature of the Company's infrastructure investments beyond 2016, Con Edison committed to undertaking, and completing, a discrete set of projects by the end of 2016. Notwithstanding this commitment, the Phase II Report indicates that Con Edison does not plan to complete certain projects until 2020.⁹

This cycle of resilience investment should not be delayed or extended beyond the December 31, 2016 target completion date. All of the projects described in the Phase II Report should be completed during this time frame, absent a compelling demonstration made on a project-specific basis that extenuating circumstances warrant a modest extension or delay. To date, no such demonstration has been made for any project.

The City recognizes that the cost of the resilience projects can be substantial, and the work effort significant. In some cases, there may be a necessity to remove major system components from service to effect needed work. Even in that instance, however, there normally should be sufficient opportunities to do so during off-peak demand periods in the two full calendar years between now and December of 2016. In contrast, the potential ramifications and impacts of a prolonged power outage are far more burdensome.

⁸ *Id.* at 9-10.

⁹ *Id.* at 11, 41-42, 49.

The scope and cost of the projects were carefully evaluated during the rate cases and in the Collaborative, and they were found to be achievable and reasonable. Having received revenue requirements designed to achieve the program's goals by December 31, 2016, the Company should not be allowed, as a general matter and without further justification, to delay and defer completion of the projects.

POINT III

THE CITY'S RISK ASSESSMENT AND PRIORITIZATION MODEL SHOULD BE INCORPORATED INTO CON EDISON'S MODEL

The City developed an outage risk assessment model to evaluate the need for, and appropriate level of, resilience-related expenditures based on a probabilistic analysis of the risk of future storms affecting specific facilities and their associated economic impacts. The model is a macro-level analysis using City gross domestic product as an indicator of societal costs. It can provide insight on the optimal level of resilience-related investments in Con Edison's facilities and systems. Also, it enables forward-looking system planning that reflects long-term evolving risks. The model presents a useful methodology for doing so in a quantitative and rigorous science-based approach.

Con Edison and the parties agreed during Phase I of the Collaborative that the Company should develop and implement a risk assessment prioritization model.¹⁰ That decision marked an important step in the development of planning processes that the Company will rely on to anticipate and address future climate risks. The City supported this decision, but recommended

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¹⁰ *Id.* at 96.

certain modifications thereto in its initial Phase I Comments.¹¹ In particular, the City urged Con Edison to incorporate the City's model, and its attributes, into its own risk assessment model. Importantly, no party disputed the validity or usefulness of the City's model during either the rate cases or the Collaborative discussions.

The Phase II Report sets forth certain revisions to the Company's risk assessment and prioritization model. Enhancements to this model include dynamic probability simulations of flood, wind damage, and durations. While the City generally agrees with factoring such simulations into the model, the City noted that the model did not incorporate the suggestions that the City raised in its comments on the Phase I Report. The City continues to believe that its quantitative and science-based approach would enhance Con Edison's model and improve its effectiveness.

The Commission should carefully examine the Company's model and ensure that it is appropriate and comprehensive in scope and operation. To the extent the Commission determines that the model, and its value to Con Edison's planning and its customers, would be improved by incorporating the attributes of the City's model, the Commission should direct Con Edison to merge the latter into the former.

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Cases 13-E-0030 *et al.*, *supra*, Comments the City of New York In Response to Consolidated Edison Company of New York, Inc.'s Storm Hardening and Resiliency Collaborative Report (filed January 10, 2014) at 7.

CONCLUSION

The City supports Con Edison's continuing effort to make its utility systems more

resilient. To the extent the Phase II Report is consistent with this effort, the Commission should

approve it. With respect to the three topics discussed in these comments, the Commission should

direct the Company to conform its plans and processes with the City's recommendations.

Dated: November 10, 2014

Albany, New York

Respectfully submitted,

Isl S. Jay Goodman

S. Jay Goodman, Esq. COUCH WHITE, LLP Counsel for the City of New York 540 Broadway P.O. Box 22222

Albany, New York 12201-2222

Tel.: 518-426-4600 Fax: 518-426-0376

E-mail:jgoodman@couchwhite.com

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