

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

Petition of Consolidated Edison Company of New York, Inc. for Approval of Brooklyn Queens Demand Management Program	CASE
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**PETITION OF CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. FOR
APPROVAL OF BROOKLYN/QUEENS DEMAND MANAGEMENT PROGRAM**

**CONSOLIDATED EDISON COMPANY
OF NEW YORK, INC.**

By its Attorney

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I. INTRODUCTION

Consolidated Edison Company of New York, Inc. (“Con Edison” or “Company”) hereby petitions the Public Service Commission (“Commission”) for approval of its Brooklyn/Queens Demand Management (“BQDM”) Program so that it can seek non-traditional customer-side and utility-side electricity demand reduction solutions to postpone a forecasted need for distribution system improvement. These solutions, in conjunction with a more limited set of traditional utility-side solutions, would be used to defer more expensive traditional utility investments, including an extension of an existing transmission substation and a new distribution substation. The need is the result of increased electricity demands from customers that overload subtransmission feeders serving the Brownsville No. 1 and No. 2 substations located in Brooklyn

that support neighborhoods in both Brooklyn and Queens (“Brooklyn/Queens”).¹ Approval of the BQDM Program will permit the Company to seek 52 MW of non-traditional customer-side solutions and utility-side solutions by summer 2018. The mix of customer- and utility-sided solutions may vary. The Company’s proposal anticipates approximately three-quarters of the reduction would come from the customer-side, typically deployed on customer property and behind the customer’s meter, and the remainder from the utility-side, directly connected to the distribution network.

As described below, the BQDM Program embodies the goals of the Commission’s Reforming the Energy Vision (“REV”) proceeding² by incorporating both customer-side and utility-side solutions in a program designed to engage customers and to help meet system planning criteria by relying on distributed energy resources (“DER”) as an alternative to more traditional utility solutions. In addition to providing the demand reduction required in Brooklyn/Queens to permit deferring construction of traditional utility assets, the BQDM Program will provide an important opportunity for stakeholders to learn from an effective test of REV ambitions. The Company’s more robust utility reliance on a set of assets and other solutions that can defer peak electricity needs will inform all stakeholders, while allowing the Company to gain a more informed perspective of its ability to rely on such assets. Further, customers that choose to participate may also be able to gain additional benefits by managing their own energy usage.

¹ References to Brooklyn/Queens 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.

² Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, *Order Instituting Proceeding*, issued and effective April 25, 2014.

II. BACKGROUND

A. Immediate Need for Customer-Side Solutions

Areas of Brooklyn and Queens have been experiencing unexpectedly high demand growth for a variety of reasons, including significant growth in residential electric demand in a number of neighborhoods. In 2013, increased customer demand began to exceed current system capabilities of the subtransmission feeders into the Brownsville No. 1 and No. 2 substations. These substations provide service to the Company's three electric distribution networks covered by this proposal: the Ridgewood, Richmond Hill and Crown Heights networks. After accounting for demand growth, the Company forecasts that the total resource need for the subtransmission infrastructure serving Brownsville No. 1 and No. 2 will be 69 MW above the system's current capabilities to meet reliability requirements by 2018; the expected extent of such overload per year is approximately 40 – 48 hours per year (these hours occur in the summer months). To meet this need in 2014-2015, the Company is implementing operational measures. Customer-side and utility-side solutions are needed to address forecasted summer overloads beginning in 2016, for which the Company proposes a multi-track solution comprised generally of the installation of capacitors (approximately 6 MW), load transfers (approximately 11 MW), and other non-traditional measures and approaches (approximately 52 MW) consistent with a more distributed set of energy resources which are described more fully in this filing.

If successful, non-traditional customer-side and utility-side solutions will enable the Company to defer the need for traditional infrastructure, including: 1) construction of a distribution substation that would have been constructed by 2017 ("New Substation"); 2) construction of a subtransmission feeder between the existing Gowanus 345 kV switching station ("Gowanus") and New Substation; and 3) the expansion of the Gowanus substation to accommodate the feeders (collectively the "New Substation/Gowanus Package").

The combination of the capacitors, load transfers and the non-traditional solutions would allow the Company to defer capital investment in the New Substation/Gowanus Package until 2024 and potentially beyond.³ The Company plans to begin deploying both customer-side solutions and utility-side solutions this year and seeks to have fully deployed the solutions by summer 2018.⁴

B. The Company's Experience with Targeted Demand Side Management

The BQDM Program builds on the Company's extensive experience with its targeted demand side management programs, which began with a pilot in 2004. Since 2003, Con Edison has obtained various Commission authorizations to implement demand side management ("DSM") programs to defer or reduce capacity upgrades to its transmission and distribution ("T&D") system in targeted networks by employing various permanent DSM measures to achieve permanent firm customer demand reductions.

In 2003, the Company solicited proposals for the delivery of targeted customer demand reductions in New York City and Westchester County as part of a pilot program to determine if capacity upgrades could be economically deferred with DSM measures. Contracts were eventually awarded for 47 MW of DSM, and three large infrastructure projects were successfully deferred or reduced in scope.

Pursuant to the Company's 2005-2008 Electric Rate Plan, the Company contracted for a total of 148 MW of DSM to be delivered from 2008–2012 for a number of different networks

³ The non-traditional solutions defer the New Substation/Gowanus Package from 2017 to 2019. The installation of a fourth transformer at the Newtown Substation in 2019 and a fifth transformer at the Glendale substation in 2019, with their supporting infrastructure, will allow for 80 MW to be transferred from Brownsville No. 1 and No. 2 into Glendale substation and, together with the non-traditional solutions, allow the deferral to be extended to 2024. The Company is not requesting funding for these transformers and attendant infrastructure in this filing.

⁴ As discussed in this filing, approximately three-quarters of the solutions are anticipated to be customer-sided solutions, with the remainder being non-traditional utility-sided solutions such as battery storage. The exact breakdown of customer-side and utility-side solutions will be determined as the BQDM Program is implemented.

throughout the service territory. In 2008, the Commission authorized the Company to contract for an additional 30 MW of targeted DSM during the 2008-2009 rate year; however, the Company did not find an opportunity to contract for the additional amount.⁵

In 2010, the Company filed a petition requesting recovery of program costs to contract for up to 100 MW as part of the Targeted Demand Side Management (“TDSM”) Program. The Commission approved this petition and authorized the Company to spend and collect \$25 million each year for four years to achieve 100 MW of targeted load relief.⁶

Respondents to this Petition may well believe that the TDSM Program should be the model for the Company’s current proposal. The Company disagrees. As will be discussed in more detail below, there are important differences between the Company’s experience with targeted DSM and the demand management needed in the BQDM Program.

First, the Company generally retained a single contractor for targeted DSM projects. The BQDM Program will seek multiple solution providers so that multiple approaches and technologies can be evaluated to determine the best aggregate solutions. In other words, the Company will be acting as the aggregator of a variety of solutions, taking on a more proactive management and implementation role.

Second, the Company’s targeted DSM programs used known technology solutions, with more than 95 percent of the demand reductions obtained from increased lighting efficiency. The

⁵ TDSM is not used to avoid construction necessitated by the need to replace failing equipment; it is used to address growth in demand and the need for attendant new infrastructure. Also, TDSM is not used to replace projects in the second half of the Company’s ten-year plan, since the Company waits to see how the need develops and demand reduction measures (e.g., various types of lighting solutions) may become less expensive if the Company waits.

⁶ Case 09-E-0115, Proceeding on Motion of the Commission to Consider Demand Response Initiatives, *Order Adopting with Modifications a New Targeted Demand Side Management Program for Consolidated Edison Company of New York, Inc.*, issued and effective June 1, 2011. To date, the Company has used a very small part of the funds authorized in the June 2011 Order, because, based upon the Company’s forecasts during this period, very few TDSM projects were cost justified. Of the \$75 million authorized through May 31, 2014, \$63.8 million was not contracted. Twenty-five million dollars remain available for use for the period June 1, 2014 – May 31, 2015 and will be available for Brooklyn/Queens demand management in the networks identified above.

BQDM Program proposes, in part for the REV learning experience, a combination of technologies with which the Company, and end use customers, have varying levels of experience and confidence.

Third, the previous targeted DSM programs generally did not include complex customer engineering or site disruption requiring extensive customer engagement. The BQDM Program will likely require the Company to engage customers in developing complex and evolving solutions. In addition, while some solutions are well known and mature, the development of new strategies and customer engagement and education efforts beyond that historically undertaken in the targeted DSM program will be required to achieve the BQDM goals.

Fourth, the targeted demand side management programs were limited to demand reduction. The BQDM Program, by contrast, will be a more interactive two-way demand *management* program with increasing use of controllable DERs.

Fifth, the targeted DSM programs used solutions solicited through Requests for Proposals (“RFPs”) where the vendor with the best priced proposal was selected. The BQDM Program will use a more complex, matrix-based selection criteria that will consider a variety of solutions received in response to a more open-ended Request for Information (“RFI”).

Sixth, the targeted DSM programs addressed either daytime or nighttime peaks, which were six hours or four hours, respectively.⁷ By contrast, the BQDM Program will address a 12-hour peak lasting from noon to midnight.

Finally, the BQDM Program will provide flexibility and allow the Company to bring technologies to the distribution system directly, to enable a more robust set of resources and

⁷ Historic targeted DSM efforts addressed daytime peak from noon to 6:00pm during summer weekdays and nighttime peak from 6:00 pm to 10:00 pm during summer weekdays.

system-management tools as an alternative to traditional investment, while furthering the REV learning process.

III. THE BQDM PROGRAM

The traditional solution to address the projected overload in Brooklyn/Queens would be to build the New Substation/Gowanus Package. New Substation would be built within the area served by Brownsville No. 1 and No. 2; the location is not finalized because the Company does not currently own land in this area sufficient for a new distribution substation. Land purchase would be the first step to build the New Substation/Gowanus Package; finalizing the location determines the length of the needed subtransmission feeders and the final substation layout.

The Company has instead developed the BQDM Program, a set of non-traditional customer-side and utility-side solutions that, together with traditional utility solutions, will defer the construction of the New Substation/Gowanus Package for at least seven years, from 2017 to 2024.⁸ Contemporaneously with this filing, the Company will issue an RFI as part of the process of implementing the approximately 52 MW of non-traditional customer-side and utility-side solutions. The remaining 17 MW will be obtained through load transfers and capacitor installations, with all the solutions in place by June 1, 2018.

Because of the need to move quickly to acquire the 52 MW of non-traditional customer-side and utility-side solutions, the Company respectfully requests Commission action on this Petition within 60 days and not later than September 30, 2014.

⁸ See, fn. 3.

A. Scope of Projects

Addressing the overload in Brooklyn/Queens is complicated by its very long (12-hour) daily peak load, which occurs from noon to midnight.⁹ To address this lengthy peak, the Company plans to consider a number of different options for non-traditional solutions, including energy efficiency, demand management, demand response, distributed generation (“DG”), and energy storage technologies. All solutions will be subject to an appropriate level of measurement and verification. The Company plans to solicit and evaluate the following types of customer-side solutions:

- Customer-Sided Energy Efficiency – targeted to reduce base demand of buildings, may include measures addressing building envelope, lighting, central and room air conditioning, refrigerator replacement and white roofs.¹⁰ Appropriately targeted energy efficiency will produce long-duration demand reduction that can also reduce customer energy use both during network peak hours and outside of the peak hours, as well as broader benefits.¹¹
- Demand Management – may include measures such as integrated controls (building management and energy management systems), daylight harvesting, storage (battery and thermal), demand response and automated demand response. Premium incentives, perhaps including an hourly peak event premium, may encourage additional use of batteries or participation in demand response

⁹ The 12-hour peak is comprised of both commercial and residential demand.

¹⁰ The Company will review whether it is appropriate to utilize alternatives to cash payments to provide customers with incentives. For example, providing bill credits may make it easier to work with government customers.

¹¹ Ancillary benefits may include: load reduction in the target area beyond the target date; emissions reductions that accrue to all customers as well as society generally; job training/creation; and reduced load requirements for back-up power.

programs, as these additional incentives may help to offset additional customer discomfort resulting from participation in the programs.

- Distributed Generation – may include facilities that serve base load (e.g. combined heat and power (“CHP”)), standby load (e.g., fossil fuel-fired generation), and, to the extent feasible, distributed renewable energy sources).
- Other Innovative Solutions – may include retro-commissioning projects, microgrids, new building designs for natural lighting and passive climate control projects.

B. Principal Customer-Side Program Activities

TDSM Programs – The existing TDSM program can address certain opportunities through May 31, 2015. Using TDSM, the Company plans to carefully layer additional incentives onto existing programs to engage customers to undertake both cutting edge demand management building projects as well as other more routine and well-understood projects (e.g., heating, ventilation and air conditioning (“HVAC”), lighting).

- Adder to existing customer incentive programs – The Company will build on existing programs by providing additional incentives for demand reductions in the relevant area. TDSM incentives will be layered onto existing incentives for the Energy Efficiency Portfolio Standard (“EEPS”) programs, Indian Point Demand Management Program, and New York State Energy and Research Development Authority (“NYSERDA”) CHP program, and other incentives that are available to the Company’s customers.

- NYCHA and other NYC agency-based programs – The Company will build upon New York City Housing Authority (“NYCHA”) and other City of New York agency-based programs, including:
 - Standard offerings to incentivize upgrades to building envelope, central and room air conditioning,¹² including controls for such air conditioning, and lighting, as well as painting of white roofs.
 - Advanced offerings to encourage greater use of controls, storage, DG, and microgrid solutions.

Request for Information – The Company believes the BQDM Program will be facilitated by engaging third-party market participants by asking for their input into how the solutions should be constructed. Contemporaneously with this filing, the Company is issuing an RFI seeking both non-traditional customer-side and utility-side solutions.¹³ The RFI (which will be one approach in a portfolio of complimentary approaches to the area’s overload) will be constructed so that it attracts the broadest range of potential solutions. Simply identifying innovative solutions will not be enough, it will also be important to identify solutions that are viable for timely deployment and that provide direct benefits to customers. In addition, the RFI seeks to identify solutions that support the Indian Point Energy Center contingency plan and may be replicable outside of the BQDM target area. The Company hopes to identify solutions through the RFI that can commence contracting, if appropriate, as early as the fourth quarter of 2014. The funding and timing of contract awards will follow approval of this Petition.

¹² The standard offers will likely include an offering to allow/encourage utilization of the CoolNYC program’s Modlet technology in NYCHA housing units.

¹³ http://www.coned.com/energyefficiency/competitive_solutions_opportunities.asp

The RFI is an open solicitation that will provide a framework to identify a wide range of both well-established and new innovative opportunities. Solutions will be selected using a matrix-based evaluation with high-confidence, low-cost solutions balanced with newer, higher-cost developing solutions that are more aligned with broader policy objectives, but have not necessarily been tested in the marketplace.

A team of experts from within the Company will establish a selection process to evaluate opportunities, and ultimately, to recommend projects or proposals. The process will be designed to facilitate broad experience sharing and the identification of opportunities to leverage State and federal funding, and to test various concepts contemplated in the REV proceeding.

Engineering Checkpoints and Alternatives – In order to track progress and assess whether non-traditional customer-side solutions are providing the necessary demand reduction, the Company will develop and use checkpoints on the solutions’ progress and will prepare contingency alternatives in case it is not possible to rely upon the non-traditional customer-side solutions. The Company intends to use the following checkpoint dates for customer-side solutions:

- By Jan 1, 2015, contract a total of 9 MWs for June 1, 2016
- By Jan 1, 2016, contract a total of 32 MWs for June 1, 2017
- By Jan 1, 2017, contract a total of 41 MWs for June 1, 2018

In addition to the specific checkpoints above, the Company will continue to track project progress, both at the overall BQDM Program level and individual project levels. The Company will follow a disciplined project lifecycle that includes Initiation, Planning and Design, Implementation, Monitoring and Controls, and Closing so that any delivery risks (deployment delay, cost over-run, impact level) may be identified early and mitigated quickly.

The Company will develop backup plans that include additional utility-side solutions that can be addressed through a separate utility-side procurement process, where the utility would employ various contractors to install technologies directly to the distribution system, including microturbines, utility scale energy storage, and voltage optimization, and could include advancing installation of the fourth transformer at the Newtown substation.¹⁴

Customer and Community Engagement – The Company will promote the BQDM Program through a comprehensive customer engagement strategy that incorporates direct marketing and sales to customers and enhanced customer outreach and education through engagement with community groups, the City of New York, key community stakeholders and non-government organizations. The Company will work with government officials and non-government organizations and will also pursue existing market partners, emerging market participants and Company contact points (e.g., call centers, events, traditional and social media).

The Company will employ direct sales and marketing to large customers through its account executives and program staff, vendor collaborations where appropriate, and by continuing to work closely with government entities.

The Company will also leverage its GreenTeam marketing strategy and existing EEPS programs within the service territory for direct and indirect sales and marketing to residential and small business customers.

C. Utility-Side Solutions

The Company will develop 11 MW of “non-traditional” solutions that leverage technologies, alternative business arrangement models, and innovative equipment configurations

¹⁴ The backup plans are separate from the 11 MW of utility-side solutions in the BQDM Program and would only be utilized to the extent sufficient customer-side solutions were not under contract or delivery risks are identified at the engineering checkpoints described above.

in the network areas supplied from the Brownsville No. 1 and No. 2 substations. The Company will develop and demonstrate technologies and models, based in part on responses to the RFI described above, that will enable the distributed energy future, can be replicated to address increasing customer demand elsewhere, will engage third parties, and leverage other financial resources. The lessons learned from these demonstrations will also provide examples, models and experiences that can be shared with other utilities throughout the State. Utility-side solutions could include: large-scale electricity storage/microgrids at the utility level; large apartment-complex microgrids, a generator and DC link at the Brownsville substations; Volt/Var Optimization, and a Distribution Management System (“DMS”).

Distribution Engineering Storage Solution Request for Proposal – The Company plans to seek distribution engineering storage solutions (“DESS”) for two separate functional options through an RFP. The two options would be for one and two MW of power for 12 hours of continuous use. DESS proposals must include: 1) the ability to recharge during the remaining 12 hours of the day; 2) connection at the 4kV level; and 3) and the ability to stand alone to support critical customers as a microgrid. The batteries could be sited at as many as three of the Company’s unit substation properties in the Richmond Hill network.¹⁵ Systems could be designed at one location or across several locations and would be managed by the Company’s DMS.

The Company is looking for a packaged product that can be managed remotely. Normal operations would follow an automatic schedule for daily discharge and charge schedule, or a logic scheme based on system load or conditions. A remote override capability would allow a

¹⁵ For ease of deployment, the Company is proposing to site the batteries at existing unit substation locations; other locations will also be considered.

control center operator to make changes to the normal operating cycle as required by system conditions or contingencies.

As the Company develops expertise and additional battery projects, it may use its new knowledge and expertise in battery installation and battery maintenance to further encourage such solutions in the future, including at the customer-side. Moreover, the Company will seek to use these resources to enhance, where possible, the integration of renewable or other intermittent supply options.

Apartment Complex Microgrid – The Company will work with apartment complexes within Brooklyn/Queens to determine the feasibility of developing one or more microgrids. Any such microgrid could be owned by the Company, the customer or another party. Various options will be considered, with significant weight given to being able to meet the Company’s demonstration and time constraints.

The Company is looking for a packaged turnkey product and delivery. The Company will require remote operating capability from its Control Center to control the unit’s output. The Company will look to leverage its Distributed Energy Resource Management System (“DERMS”), built on one of its American Recovery and Reinvestment Act stimulus projects, to perform secure control functionality.

Generation and DC Link at Brownsville Substation – The Company will leverage the DC link that it developed on a parcel of Company-owned property adjacent to Brownsville Substation to allow a synchronous generation source to feed through the DC link into the secondary grid. The DC link provides the ability to limit fault current contributions from the generator, ride through voltage sags or rapid load changes without tripping the generator, and detect and disconnect islanded systems. In this demonstration, the Company also wants to

demonstrate the ability for the DC link to “throttle” energy flow passing through it. This may not be critical to this application, but may prove very useful for customers who want to limit their “standby” requirements.

Volt/Var Optimization – The Company will examine the possibility of applying voltage sensors and communications equipment on pole-mounted transformers in the 4 kV grid in the Richmond Hill network. The information communicated from these sensors will be leveraged as a feedback loop for Volt/Var optimization within the 4 kV grid. A voltage reduction of 2.25% would provide 2 MW of demand reduction. Additionally, the customers in the grid would experience year round energy savings of about two percent, and the public would benefit from a reduction in greenhouse gas emissions of approximately 1,750 tons.

Distribution Management System – The 4 kV grid will be managed via a demonstration of a DMS, enabled by the DERMS. The DMS will control tap changers at the 10 unit substations, the batteries described in the DESS above, the turbines at any apartment complex described above, and the generation incorporated with the DC Link described above. It will incorporate feedback from the voltage sensors to determine optimal settings of all equipment. In addition, it will identify system improvements required to obtain marginal optimization and savings.

D. Projected Cost

The BQDM total program cost is anticipated to be \$200 million, inclusive of capital costs and incentive payments. The Company will spend up to \$25 million from the current TDSM Program on the BQDM Program, pending approval of this Petition. The Company is requesting approval through this Petition to spend up to a total of \$200 million on the BQDM Program, with

the amount to be recovered through the BQDM Program reduced by the amount of TDSM funds expended on the BQDM Program.

Customer-Side Costs – The total cost of the 41 MW of customer-side reductions is projected to be approximately \$150 million, at an estimated average cost of \$3.7 million per MW. The cost is higher than previous network-oriented solutions because the resources being considered here, and the nature of the need, is significantly different and more complicated.

The approximately 12-hour peak in the impacted Brooklyn/Queens networks (noon - midnight) is significantly longer than in previous targeted efforts. Addressing the unusually lengthy peak will require reliance on non-traditional solutions in addition to those historically used to reduce demand in targeted networks. While much of the resource need is anticipated to be addressed through traditional savings achieved through lighting, HVAC, building envelope improvements, and other similar measures, employing alternative technology solutions such as those identified in the REV proceeding (e.g., DERs - battery storage, CHP, fuel cells and microturbines and microgrids) will result in a more challenging and expensive solution set. Battery solutions, for instance, may require multiple banks of four-hour batteries to cover the full 12-hour peak.

In addition, the Company anticipates that the customer base in the targeted Brooklyn/Queens area will make it a relatively more expensive area to seek and acquire customer-side solutions as the Company must engage with landlords, tenants, and other entities in an area that is predominantly residential and small commercial. In fact, approximately 85 percent of customer accounts in the targeted Brooklyn/Queens area are residential and most of the commercial accounts are “small commercial.” While the demand in the area is nearly evenly split between the commercial and residential sectors, larger commercial customers (those with

demand over 500 kW) make up only approximately 13 percent of the demand. Larger commercial customers typically have more sophisticated knowledge of their energy use and can address larger quantities of potential reduction per capita. By contrast, it is significantly more costly to engage the relatively large number of residential and small commercial customers in demand-side management, particularly in the rental community because of issues arising from split incentives.¹⁶ Both population and housing unit growth during the years 2009-2014 in the Brooklyn/Queens networks have been among the highest in New York City and have been largely in renter-occupied housing. Further impacting costs, a significant portion of the population in the networks associated with the project lives in housing that is not individually metered. These customer conditions require the customer engagement strategy outlined above, including a substantial and broad investment in consumer education and outreach that will be far greater than in previous TDSM projects.

Utility-Side Costs – The total cost of the 11 MW of non-traditional utility-side reductions is projected to be approximately \$50 million, for an estimated average cost of \$4.5 million per MW. While this cost is higher than the customer-side solutions, many of which will be time-tested and relatively inexpensive lighting and HVAC measures, the utility-side solutions are likely to be more expensive and long lasting. The Company proposes to deploy limited applications of advanced technologies, such as storage and fuel cell technologies, to demonstrate their effectiveness for similar applications around the system, behind the meter, and at other utilities throughout the State. Deploying these solutions will provide important and valuable “learning” opportunities that will provide long-term benefits to the Company’s customers.

¹⁶ Split incentives is a commonly-recognized problem wherein renters pay the full cost of utility services, and would be the sole beneficiary of efficiency savings. This provides a disincentive to the landlord, who would be responsible for the cost of installing energy efficiency, but would receive none of the benefits.

While the solutions are more expensive on a per kW basis than the customer-side solutions, they will not have a larger impact on customers since they are expected to be paid for over a longer period of time. Any opportunities to obtain third party investments or apply grant funding will be leveraged to expand the scope of the demonstrations and increase the benefits to the Company and its customers.

E. Program Management

The BQDM Program has the potential to be a model of how New York State's utilities can engage customers so that they become active partners in managing the grid through increased energy efficiency and by developing, operating, and maintaining DERs. In order to implement the model, the Company requires the flexibility to respond to market needs and opportunities.

The Company proposes that it be given broad authority to work with customers and offer them the types of business terms that will achieve the desired outcome and best fit their needs, including consideration of ownership, lend/lease, and co-ownership of materials and assets installed within their premises and located behind the utility meter. The Company plans to use various purchasing models, from sole-source solutions to RFPs, to enable the Company to manage programs costs while maintaining the flexibility necessary to find and employ the most innovative solutions.

The Company's goal is to find and deploy technology solutions in the targeted areas that will achieve the desired outcome and also will advance the REV concepts that support a future with a more distributed set of energy resources than exists today. For example, the owner or manager of a multifamily residential building (or neighborhood) may have no interest in owning

a battery storage solution, but may be amenable to having a utility-owned battery nearby, or on its premises, if it facilitates renewable resources or perhaps mitigates a peak demand.

Because the BQDM Program will necessarily be testing new approaches to engaging customers and achieving the 41 MW of customer-side demand reductions, the Company will need flexibility to invest in various types of business relationships. Similarly, the Company in some instances may need to retain some or all aspects of operation, maintenance, and technical support responsibility for customer-side solutions offered under the program in order to maximize reliability.

F. Measurement and Verification Procedures

The primary goals of the measurement and verification (“M&V”) procedures will be to: 1) measure and verify demand reductions during the needed hours; 2) provide confidence in the sustainability of the reductions over the years the reductions are needed; and 3) maintain positive customer satisfaction. For each type of non-traditional customer-side and utility-side solution selected, the M&V processes and methodology will be developed and included in an implementation plan.

G. Cost Management

The up to \$25 million of TDSM solutions will be managed as currently approved by the Commission. The majority, but not necessarily all, of the non-TDSM BQDM Program proposed solutions will be competitively solicited from third parties.¹⁷ Rather than being able to dictate the terms and size of the incentives, the Company will be generally limited to evaluating and choosing from the market proposals that are submitted through the RFI and RFPs and will rely upon the market to identify costs. The Company anticipates that the RFI and RFP method for

¹⁷ The Company may commit a portion of the BQDM Program funds to solutions developed with City of New York and State agencies outside of the RFI process.

competitive solicitation will be informative to the REV proceeding and will help the Commission and other stakeholders determine how to animate the market in the future.

H. Expanded Benefits

The Company anticipates that the Brooklyn/Queens non-traditional solutions will yield benefits that can serve as a guide for the REV proceeding. Such benefits may include wholesale energy market price reductions, resiliency, reduced carbon emissions, avoided traditional construction impacts, and other non-financial benefits. Studying and evaluating the impacts will inform the REV proceeding on the benefits of BQDM solutions, and may be a useful tool for determining how the Distributed System Platform Provider (“DSSP”) may value such solutions in early years of operation.

I. Recovery of Incurred Costs

The Company proposes that it be permitted to defer and recover the costs of the BQDM Program, other than the up to \$25 million allocated from the current TDSM Program, over a five-year period and 10-year period for customer-side and utility-side expenditures, respectively.¹⁸ The shorter amortization periods than those traditionally afforded in rates reflect the nature of the expenditures, including new technology, new applications of existing technology, and expenditures on customer-side solutions where no physical asset exists.

The Company proposes to recover costs allocable to Con Edison customers through a new component of the MAC and the costs allocable to NYPA customers through a new surcharge mechanism established for purposes of these programs. The MAC component and the

¹⁸ The Company will recover up to \$25 million of customer-side demand management programs through the surcharge mechanism established in Case 09-E-0115, which provides for the portion of costs allocated to Con Edison customers to be recovered through the Monthly Adjustment Clause (“MAC”) and the portion of costs allocated to NYPA to be recovered through the special surcharge established pursuant to the order issued on June 1, 2011 in that case.

NYPA surcharge would be updated on a regular basis, as costs are incurred and/or incentives earned, through quarterly filings with the Commission.¹⁹

Program costs recovered through the surcharge, which will be incremental to costs already reflected in base rates, would include all program costs for customer-side and utility-side demand management programs, including operation and maintenance costs, program incentives, and payments to independent contractors for operating portions of the BQDM Program. The Company would receive a return on the deferred BQDM Program costs equal to the Company's overall rate of return authorized in the Company's latest electric rate proceeding.

Based in part upon the stakeholder proposals advanced through the RFI process, the Company will be delaying the need to make traditional investments. Consistent with the vision of the REV proceeding, ratemaking should make the Company indifferent to whether it invests in traditional or non-traditional solutions, as well as whether it invests in customer-side or utility-side solutions. Accordingly, earning a return on the costs for these programs, and recovering these costs over a period as described herein, would be consistent with the REV vision.

The Company also proposes that the Commission establish up to a 100 basis point incentive on BQDM Program investments to encourage the Company to not only invest in non-traditional solutions, but to also have a direct interest in the overall program success. The basis point incentive would be incremental to the authorized rate of return if the Company achieves performance metrics based upon meeting specific goals of the BQDM Program.

The Company also proposes that the Commission establish a sharing of the annual net savings of the BQDM Program, with the Company receiving 50 percent of the net savings.

Annual net savings will be calculated as the difference between the annual carrying cost of the

¹⁹ The Company will evaluate including the recovery of these BQDM Program costs in base rates in the Company's next rate proceeding, maintaining the same recovery periods for customer-side and utility-side expenditures.

New Station/Gowanus Package as originally anticipated and total annual collections for the BQDM Program.²⁰ Approval of the proposed incentives will align customer, Company and Commission interests to achieve performance targets.

Upon Commission approval of the cost recovery mechanisms requested in this Petition, the Company will make the appropriate compliance tariff filings to enable the Company to begin recovering the BQDM Program costs. Through the quarterly filings discussed above, the Company proposes to update the MAC and NYPA surcharges to reflect (i) costs incurred during the prior quarter, including the return on investment, and to the extent applicable, (ii) any basis point incentive and/or share-of-net-savings incentives determined to be earned after evaluating the Company's performance against the established targets.

J. Reporting Requirements

The Company will provide the Commission with quarterly reports describing expenditures, the extent to which expenditures have been recovered through customer surcharges, and major activities.

²⁰ Other benefits will accrue to customers including energy capacity reductions and non-monetized impacts as discussed in the REV proceeding.

IV. CONCLUSION

For the reasons stated herein, the Company requests that the Commission approve the BQDM Program within 60 days and not later than September 30, 2014.

New York, New York
July 15, 2014

Respectfully submitted,

CONSOLIDATED EDISON COMPANY
OF NEW YORK, INC.

By its Attorney



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