INTRODUCTION

Consolidated Edison Company of New York, Inc. (Con Edison or the Company) submitted a petition for approval of a new Targeted Demand Side Management (New Targeted DSM) Program. The Petition was submitted in response to our June 24, 2010 Order in the Energy Efficiency Portfolio Standard (EEPS) proceeding. In that Order, we directed that Con Edison’s New Targeted DSM Program be addressed in this proceeding, which was established to consider Con Edison’s demand response initiatives separate and apart from the Company’s EEPS initiatives. In the Order instituting the EEPS proceeding, we required consideration of “demand response technology and utility

1 Case 07-M-0548, Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, Order Approving Three New Energy Efficiency Portfolio Standard (EEPS) Programs and Enhancing Funding and Making Other Modifications for Other EEPS Programs (issued June 24, 2010) (EEPS Order).
rate incentives to encourage customers to shift usage and reduce peak loads.”\(^2\) This proceeding was initiated to consider potential initiatives to promote demand response (DR) in parts of the State where peak load reduction would provide the greatest benefits to consumers in the form of reduced infrastructure investments and reduced emissions.\(^3\)

Con Edison’s petition requests recovery of program costs to contract for up to 100 megawatts (MW) of new targeted DSM and to recover the incurred costs through the Company’s Monthly Adjustment Clause (MAC). The program costs are estimated by Con Edison to be $25 million per year assuming the installation of approximately 25 MW of targeted DSM per year.

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), notice regarding the petition was published in the State Register on September 29, 2010. The public comment period ended on November 15, 2010. Comments were filed by New York University (NYU). NYU states that it has been part of the Company’s targeted DSM program in lower Manhattan since its inception by utilizing the program incentives and assistance to realize significant benefits. It supports Con Edison’s proposed New Targeted DSM Program and looks forward to being an active participant.

We will approve the Company’s New Targeted DSM Program with the modifications discussed herein and with a funding cap of $25 million per year for four years. Recovery of costs incurred under the New Targeted DSM Program will be collected through the MAC for the Company’s full service and retail access customers, and a portion of the program costs will be allocated to the Company’s NYPA delivery

\(^2\) Case 07-M-0548, supra, Order Instituting Proceeding (issued May 16, 2007) at 7.

\(^3\) Case 09-E-0115, Proceeding on Motion of the Commission to Consider Demand Response Initiatives, Order Instituting Proceeding (issued February 17, 2009) (February 2009 Order).
rate classes. We also determine that the Company may only invest in targeted DSM measures that pass the total resource cost test on an avoided or deferred Transmission and Distribution (T&D) project-by-project basis. Finally, we will require the Company to submit annual reports detailing the progress made and costs incurred under the new program.

SEQRA FINDINGS

Pursuant to the Commission’s responsibilities under the State Environmental Quality Review Act (SEQRA), in conjunction with this Order, we find that the program recommended for approval herein is within the overall action previously examined by us in Case 07-M-0548 and will not result in any different environmental impact than that previously examined. In addition, the SEQRA findings of the June 23, 2008 Order in Case 07-M-0548 are incorporated by reference and we certify that: 1) the requirements of SEQRA, as implemented by 6 NYCRR Part 617, have been met; and, 2) consistent with social, economic, and other essential considerations from among the reasonable alternatives available, the action being taken is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable.

BACKGROUND

Since 2003, we have granted various authorizations to Con Edison to implement demand side management programs to defer or reduce T&D system upgrades by employing various DSM measures to achieve permanent load reductions in targeted electric networks. The underlying assumption in targeting specific networks is that targeted DSM can result in greater avoided T&D benefits than larger amounts of DSM scattered throughout the system, while also achieving
electric energy and capacity benefits.\textsuperscript{4} The Company continues to administer its current targeted DSM contracts, which are effective through 2012. In September 2008, Con Edison included the proposed New Targeted DSM Program in its portfolio of energy efficiency programs submitted in the EEPS proceeding. In our EEPS Order, we determined that the appropriate forum for considering the New Targeted DSM Program is this demand response proceeding since the proposed New Targeted DSM Program focuses on peak load reduction.

The Company’s proposed New Targeted DSM Program is based on the targeted DSM programs previously authorized by us. Under its proposal, Con Edison seeks authority to contract for, or otherwise acquire, up to 100 MWs of additional targeted DSM over a four year period, with the primary goal of permanently reducing peak electric loads.\textsuperscript{5} As explained below, this amount assumes that the Company will contract for 20 to 30 MWs of substation level load relief in each of its annual planning cycles, and that its current efforts to target the secondary distribution system will increase to a level of 5 to 10 MWs of load relief each year. Con Edison proposes to recover the costs of its New Targeted DSM Program, as they are incurred, through the MAC.

\textbf{Substation Level Targeted DSM}

At the substation level (area substations and higher), the Company proposes to consider whether DSM is a practical and more cost effective solution for each T&D project identified in the Company’s normal planning process. For substation level projects required in the next one to five years, the Company proposes to acquire DSM using firm contracts similar to the contracts entered into under the

\textsuperscript{4} This assumption is supported by the Company’s analysis described later in this Order.

\textsuperscript{5} The EEPS DSM program differs in that the primary goal of that program is to reduce energy usage.
existing targeted DSM program. These contracts would be competitively bid using a Request for Proposal (RFP) process and would incorporate lessons learned from the existing program and recommendations from the evaluation of the Company’s current targeted DSM program.\(^6\) Targeted networks would be designated as either daytime or evening peaking. Potential bidders would be notified, via RFPs, of the peak interval that applies to each network, the level of firm load reductions targeted for each network, and when those reductions are needed. The RFPs would also list the number of customers by rate class to help participating vendors respond to the RFP. Winning bidders would then install various measures over a period of time that will result in permanent peak load reductions for the life of the measure(s) installed.\(^7\)

For longer-term substation level projects, those identified as needed in more than five years, the Company plans to leverage the current EEPS, New York State Energy Research and Development Authority (NYSERDA) and New York Power Authority (NYPA) programs in order to target the distribution of the EEPS, NYSERDA and NYPA program load reductions into targeted networks. The Company claims that this process could eliminate or mitigate the cost of subsequent firm contracts as these projects move to the near term, as well as allow forecasted demand uncertainty to resolve before entering into long term fixed price contracts.

The Company proposes to target the distribution of EEPS, NYSERDA and NYPA DSM program load reductions through additional

\(^6\) On May 8, 2009, the Company filed an independent evaluation of the Company’s Targeted Demand Side Management Program (Targeted Evaluation) as required pursuant to our Order in Case 07-E-0523, Con Edison – Electric Rates, Order Establishing Rates for Electric Service (issued March 25, 2008).

\(^7\) This differs from the typical Demand Response (DR) programs where customers are called on to reduce load for the next several hours or the next day.
marketing, added customer incentives, and/or additional coordination between the Company and other efficiency providers and program sponsors. For example, the Company could market an added customer incentive for certain large commercial measures in a targeted network in order to accelerate the potential of certain Company and NYSERDA EEPS measures that could create the proper load reduction to offset the expected targeted network peak load.

The Company proposes to only pursue DSM solutions that have a Total Resource Cost (TRC) test benefit-to-cost ratio greater than 1.0. It states that the benefit-to-cost ratio will be calculated in accordance with the methods approved by the Commission in the EEPS proceeding, except that the T&D deferral value of $100 per kilowatt year (kW-yr) will be replaced by the appropriate savings in carrying charges for the specific T&D project being considered for deferral. Where other programs such as EEPS programs are leveraged via an added incentive or added marketing, the benefit-to-cost ratio would be calculated considering only the excess T&D deferral value benefit. The excess value will be defined as the deferral value of the specific T&D project being considered minus the $100 per kW-yr value allocated to the approved EEPS program(s). This approach will insure that the benefits accounted for under the EEPS program will not be double counted under the Company’s New Targeted DSM Program.

Secondary Distribution System Targeted DSM

Secondary distribution system load relief projects are identified each year in the Fall (October) following the issuance of the Company’s peak demand forecast and a technical analysis of each circuit under normal and contingency loading conditions. Secondary load relief projects must then be planned and completed prior to the following Summer (May). Since this schedule does not allow for the more time-consuming RFP and contracting process traditionally used in the Company’s targeted DSM program, the Company
proposes to contract in advance for approximately five MW per year of DSM from one or more vendors and then deploy that DSM, beginning each October, in smaller increments to the secondary system circuits identified by the Company’s engineering groups.

In addition to the open RFP approach, the Company proposes to expand the efforts that it has begun to leverage Con Edison’s other DSM efforts in the secondary system. The Company reports that since July 2009 it has been marketing efficiency measures to highly localized areas of the secondary distribution system where 1) capital upgrades were being considered, and 2) EEPS programs or existing targeted DSM contracts could be leveraged. The Company indicates that based on input from its engineering groups, secondary system projects, such as transformer and feeder replacements, throughout the service territory were identified as potential candidates for load relief via DSM.

An assessment of the potential of available targeted, EEPS, NYSERDA and/or NYPA program measures was then completed based on the demographics of the customers associated with these overloaded circuits and the amount of load relief needed. Specific marketing strategies were then designed and implemented for each targeted circuit to encourage associated customers to adopt the relevant DSM measures. The marketing strategies included direct mail appeals, door-to-door sales sweeps, and direct appeals to high demand customers. The Company states that it has carried out these efforts using a limited resource which has limited the scope and reach of its marketing of the programs and therefore expanding this effort will require the additional resources it is requesting. For example, the Company states that it would like to be able to station a Company truck outside a designated multi-family dwelling for a few days and offer residents the opportunity to exchange used incandescent bulbs for new compact fluorescent light bulbs (CFLs).
Targeted DSM Program Evaluation

The Company’s filing included the TRC test evaluation of its existing targeted DSM program and it provided updated models which contained the details and assumptions of the full TRC test evaluation. The updated models indicate that the existing targeted program will achieve a TRC benefit-to-cost ratio of 3.2 and create $324 million of net savings for utility customers (2010 net present value (NPV)), including $230 million in carrying charges on avoided capital expenditures for T&D upgrades and the balance attributable to customer energy savings, reduced capacity requirements, reduced line losses, and reduced emissions. The average annual cost of the existing targeted DSM program over the last five years has been $23.2 million of which vendor payments (including customer incentives) account for 81% of the costs; measurement, verification, and evaluation (MV&E) account for 6%; and, the Company’s program administration accounts for 2%. Commercial customers provide the remaining 11% as contribution toward a specific DSM measure. Con Edison states that it expects the future allocation of funds among vendors, MV&E, and program administration to follow past trends, with the exception that the Company would take on a larger share of the marketing functions in order to better integrate the New Targeted DSM Program with its other demand side programs, as described above.

As mentioned above, in Case 07-E-0523, we ordered an independent evaluation of the Company’s existing targeted DSM program, which was conducted by Navigant Consulting (Navigant). The Targeted Evaluation considered only Phases II through IV of the existing program and was completed in May 2009. Navigant estimated that the program would achieve a TRC benefit-to-cost ratio of 1.45 when fully implemented and provided a number of recommendations to improve the targeted DSM program. The Company has implemented many of Navigant’s recommendations, as well as a number of other changes necessitated by the recession and its resultant impact on the

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Company’s annual load forecasts. In particular, between May and December 2009, the Company renegotiated all ten of the DSM contracts with vendors from Phases II through IV in its existing targeted DSM program, reducing contract costs by $50 million without reducing expected T&D deferrals. Several factors influenced the renegotiations including changes in load and vendor’s inability to meet the contracted load reductions. At the same time, changes to the load forecast resulting from the recession extended many T&D project deferrals. The Company argues that the benefits of these extended T&D deferrals should be credited to the program, as these projects would have been budgeted and built in the absence of the existing targeted DSM program. According to the Company, these reduced costs and enhanced benefits are the primary drivers behind the increased TRC benefit-to-cost ratio that the Company now expects to realize when the existing targeted DSM program is completed in 2012.

Finally, the Company reports that it conducted a study to understand the relative value of targeted and non-targeted DSM to the distribution system and found that targeting DSM can increase its T&D savings by a factor of two to ten compared to non-targeted DSM. This study involved creating simulations that compared the relative T&D benefits from incremental amounts of DSM at the area substation level of the distribution system for targeted and non-targeted DSM. In one scenario, each MW of DSM was allocated to the substation where it would contribute most to deferring a project and in another scenario DSM was distributed among the networks. The results of the study showed that when less than 100 MW of DSM was available, targeting it at places where it could defer specific projects increased the NPV of the T&D benefit by 10 to 100 times over randomly allocating it among 62 substations. However, even with 500 MW of DSM available, the T&D benefit from targeting was still more than twice that produced by a random allocation.
DISCUSSION AND CONCLUSION

The Company’s targeted DSM program has been an integral part of its portfolio of energy efficiency programs, all of which work together to save energy and reduce ratepayer costs. The targeted program’s focus on reducing peak load to avoid or defer specific T&D upgrades increases the overall benefits of the portfolio of energy efficiency programs. The Company’s proposed New Target DSM Program builds on the experience learned from the current targeted program with refined approaches to maximize benefits of the program. This is particularly true of the Company’s proposal to expand the program to address the secondary distribution system. There are significant levels of infrastructure investment, at both the substation and secondary system level that can be targeted for deferment through this program. However, there are certain aspects of the proposed program that we will modify. These modifications are specifically related to the cost effectiveness of the program and program cost recovery.

The Company requests approval to enter into 100 MW of targeted DSM under the New Targeted DSM Program. The Company estimates that expenditures will be approximately $25 million per year, assuming it achieves 25 MW of targeted DSM annually. The estimated cost is based on actual experience, and at this level, bill impacts should be *de minimis* since the average annual cost under the current program, which ends in 2012, has been $23.2 million per year. We will approve the 100 MW, but with a cap of $25 million per year for four years. The $25 million annual cap shall include the total dollar amount of all contracts entered into during the annual period and such annual period shall begin on the date of issuance of this Order. Since the collection of the targeted program costs related to multi-year targeted DSM contracts coincides with the multi-year payment obligations under those contracts, actual cost recovery from customers may occur beyond the four year period.
To monitor the actual expenditures and so we are able to track the contract costs and T&D project deferrals, we will require annual reporting by the Company. This report shall include details on all T&D projects that were targeted for deferral, the RFPs issued and the contracts awarded, as well as the results from its efforts on the secondary system and an accounting of all other costs incurred. The annual report shall also provide the TRC test results by project for all contracts that were entered into or other programs funded during that period. Furthermore, the report shall detail the Company’s accounting for deferring for the benefit of ratepayers of any cost recovery embedded in base rates related to the T&D projects that were deferred as a result of the Targeted DSM Program, to insure that ratepayers are not paying for both the targeted DSM measure and the carrying charges on projects that were deferred.

We have reviewed the detailed TRC test spreadsheets, related to the existing targeted DSM program, provided by the Company. Following several discussions between Department of Public Service staff (Staff) and the Company, revised spreadsheets were provided which corrected for minor errors and used the original T&D project deferral time frames that were assumed when the individual contracts were entered into. The T&D deferral time frame makes a significant difference in the TRC test results. The TRC test benefit-to-cost ratio is 2.2 assuming the original deferral time frames. Under the extended deferral timeframes scenario, the TRC test benefit-to-cost ratio increases to 3.2. While it is true that during the various phases of the current targeted DSM program certain assumptions that were made when entering into the various contracts (related to load and the economy) changed, which resulted in certain T&D projects being deferred further than expected and in some instances indefinitely, we will rely on the TRC test results assuming the original deferral time frames to judge the cost effectiveness of the program.
We find that the TRC test results for the existing targeted DSM program assuming the original deferral timeframes to be reasonable. First, the total program benefit-to-cost ratio of 2.2 is significantly greater than 1.0, which provides for a certain tolerance level associated with the TRC test input variable uncertainties. Second, the Company has incorporated impact adjustment factors (coincidence, free ridership, hours of use, rebound, spillover and measure retention)\(^8\) developed by Navigant for the Targeted Evaluation, actual and projected gross DSM installations from measurement and verification data, detailed T&D project carrying costs for each project, and actual and projected payments on vendor contracts. In addition, the model correctly applies our approved energy and capacity Long Run Avoided Costs (LRACs). We do, however, take note of the Targeted Evaluation’s conclusion that the TRC test results for projects carried out in residential networks were marginal when compared to projects implemented in commercial networks. Furthermore, the Company’s TRC test results when calculated on a specific network basis are less than one for certain networks. For this reason, we direct the Company to only invest in New Targeted DSM Program measures that pass the TRC test on a targeted T&D project-by-project basis. This will insure the cost effectiveness of each project deferral and maximize the benefits of the program.

When we approved the Company’s targeted DSM program for the first time, much of the energy efficiency investment in the state was being administered by NYSERDA. In order to determine a cap on the incentive that the Company was required to use to compare to the targeted program RFP bids, we relied in part on the average cost that NYSERDA historically paid for energy efficiency measures. At that

\(^8\) As defined and described in Appendix B of the Targeted Evaluation report.
time, this equated to $746/kW and that value was used as the proxy for avoided electric energy and capacity. The avoided T&D deferral value, calculated on a $/kW value, was then added to the $746/kW to arrive at an incentive ceiling or cap. Since then, we issued orders in Case 07-M-0548 related to our required TRC test approach as well as approved long run avoided costs of energy and capacity. For this reason, Con Edison shall no longer rely on the $746/kW proxy and instead calculate the incentive ceiling for each targeted network project by modeling the assumed TRC savings based on the specific measures to be installed, while incorporating the impact adjustment factors (coincidence, free ridership, hours of use, rebound, spillover and measure retention) from the Targeted Evaluation. In addition, when calculating the TRC test benefit-to-cost ratios, the Company shall apply a 25% downward adjustment factor to the avoided T&D deferral value to account for such things as the uncertainty in the T&D project cost estimate contingency factors, changes in load, and / or unanticipated load transfers among networks. This adjustment is intended to insure the cost effectiveness of the targeted DSM investment.

Costs associated with the current targeted DSM program have always been recovered through the MAC mechanism which is applicable to all full-service and retail access delivery customers, excluding NYPA customers. Con Edison requests that this cost recovery mechanism continue for the New Targeted DSM Program. While we find that cost recovery from all of the Company’s full-service and retail access delivery customers should continue to be through the MAC, NYPA customers should also be allocated a portion of the New Targeted DSM Program costs. The intent of the New Targeted DSM Program is to avoid or defer T&D infrastructure and all delivery customers including the NYPA delivery rate customers will benefit from such avoidance or deferral and therefore NYPA customers should be assigned a portion of the costs. For this reason, the Company
is directed to allocate a portion of the New Targeted DSM Program costs to the NYPA delivery rate classes (those customers served under the Schedule for NYPA Delivery Service – PASNY No. 4 (PASNY) and the Schedule for Economic Development Delivery Service – EDDS No. 2 (EDDS)). The allocation shall be performed on a pro-rata basis based on forecasted rate year delivery revenues under each rate schedule to the total combined forecasted delivery revenues under the full-service, retail access, PASNY and EDDS rate schedules. To effectuate this change, the Company shall submit compliance tariff revisions, on one day’s notice, incorporating tariff language regarding the collection of a portion of the New Targeted DSM Program costs from the NYPA delivery rate classes.

The Commission orders:

1. Consolidated Edison Company of New York, Inc.’s proposed new targeted Demand Side Management Program is approved with the modifications discussed in the body of this Order.

2. Consolidated Edison Company of New York, Inc. shall file annual reports with the Secretary to the Commission that contain the information discussed in the body of this Order. The first annual report shall be submitted on or before September 1, 2012.

3. Consolidated Edison Company of New York, Inc. shall file in compliance with the directives in the body of this Order, further revisions incorporating tariff language regarding the collection of a portion of the new Targeted Demand Side Management Program costs to the New York Power Authority delivery rate classes, within 30 days of the issuance of this Order, to become effective on not less than one day’s notice.

4. Consolidated Edison Company of New York, Inc. is granted waiver of the requirements of Public Service Law §66(12)(b) and 16 NYCRR §720.8.1, regarding newspaper publication of the further revisions directed in Ordering Clause 3.

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5. The Secretary at her sole discretion may extend the deadlines set forth in this order.
6. This proceeding is continued.

By the Commission,

JACLYN A. BRILLING
Secretary

Digitally signed by Secretary
New York Public Service Commission

(SIGNED) JACLYN A. BRILLING
Secretary