



Reforming the Energy Vision

Reforming the Energy Vision Demonstration Project Assessment Report

Con Edison:
CONnectED Homes Platform

January 8, 2016

INTRODUCTION

In an order issued February 26, 2015, the Commission directed the six large investor owned electric utilities to develop and file a set of initial demonstration projects consistent with the guidelines adopted by the order on or before July 1, 2015.¹ These projects are intended to demonstrate the potential of various aspects of the Reforming the Energy Vision (REV), the regulatory initiative launched by the Commission as part of Governor Cuomo's comprehensive energy strategy for New York.

As the Commission noted, the projects are intended to demonstrate new business models, i.e. new revenue stream opportunities for third parties and the electric utilities. In that regard, the projects will inform decisions related to development of Distributed System Platform (DSP) functionalities, measure customer response to programs and prices associated with REV markets, and determine the most effective implementation of Distributed Energy Resources (DER). Further, as demonstration projects, they are intended to test new technology and approaches to assess value, explore different strategies, and innovate before committing to full-scale implementation. Therefore, demonstration projects should also be designed to deliver observable results and actionable information within a reasonable timeframe. During the demonstrations, the projects will be assessed regularly. Lessons learned should be incorporated into the projects or as appropriate into the utilities' operations as expeditiously as reasonable.

¹ Case 14-M-0101, Reforming the Energy Vision, Order Adopting Regulatory Policy Framework and Implementation Plan (Issued February 26, 2015) (Track One Order).

DISCUSSION

Con Edison's Proposal

In compliance with the Commission Track One Order, Consolidated Edison Company, of New York, Inc, (Con Edison or the Company) filed its demonstration project on July 1, 2015, and addendum on November 20, 2015 reflecting modifications to address concerns Staff raised with the Company. Con Edison's CONnectED Homes Platform (CONnectED Homes) is a multi-channel customer engagement and marketplace that combines home energy reports generated by Opower, advertising of DER products and services, and an online marketplace administered by Enervee. CONnectED Homes aims to increase customer engagement, drive the adoption of DER, and lower acquisition costs for DER providers. It aims to do this through a combination of specially trained customer service representatives from Bridgevine Inc., the Opower home energy reports containing targeted advertisements of DER products and services, and the Enervee online marketplace. According to the filing, Opower has extensive experience leveraging outbound communications to promote efficiency and DER-related offerings by motivating customers to take targeted energy efficiency actions. The project will engage residential customers by contextualizing their energy usage by comparing it to their neighbors' while simultaneously providing suggestions and products that can help control energy usage. CONnectED Homes will offer three categories of DER at its launch: solar photovoltaic (PV), home services such as energy efficiency audits and energy appliance installation and repairs, and smart thermostats. Con Edison will also integrate its existing demand side management programs into CONnectED Homes. Con Edison has stated it intends to add additional DER providers to CONnectED Homes in the future.

Department of Public Service Staff (Staff) Review

Staff reviewed Con Edison's CONnectED Homes demonstration project filing for consistency with the Commission's REV policy objectives and demonstration project principles. The REV policy objectives are: enhanced customer knowledge and tools that will support effective management of the total energy bill; market animation and leverage of third party contributions; system wide efficiency; fuel and resource diversity; system reliability and resiliency; and reduction of carbon emissions.² The Commission's demonstration project principles defined in the Commission's December 12, 2014 Resolution on Demonstration Projects are: third party participation; new business models; customer/community engagement; identification of economic value; pricing and rate design; system benefits; cost effectiveness; and implementation with constructive feedback within a reasonable timeframe.³

CONnectED Homes is the fourth marketplace REV demonstration project currently approved for implementation. The other three marketplaces are Central Hudson Gas and Electric's Central-E: Your Energy Exchange (Central-E), Orange and Rockland's DER Residential Offering, and Con Edison's Building Efficiency Marketplace. The four projects differ in terms of customer class, location, the level of data analysis performed, social aspects, and marketplace providers. Central-E and O&R's Marketplace are targeted towards consumers, while Con Edison's Building Efficiency Marketplace is targeted towards larger commercial buildings.

² Case 14-M-0101, Reforming the Energy Vision, Order Instituting Proceeding (issued April 25, 2014).

³ Case 14-M-0101, Reforming the Energy Vision, Memorandum and Resolution on Demonstration Projects (Issued December 12, 2014).

Staff also evaluated the extent to which the demonstration project maintains a reasonable relationship between costs and estimated benefits and believes CONnectED Homes is a demonstration project with the potential to add significant value to all customers and the Commission's REV proceeding. For the Company, benefits include not only the potential revenues generated by CONnectED Homes, but also the learning aspect of the demonstration. Staff's approach included examination of both qualitative and quantitative benefits, including how, to the extent possible, the project would leverage third party capital. While Con Edison's CONnectED Homes demonstration project does not utilize third party capital in this way, it does have extensive third party participation through Opower, Enervee, Bridgevine, as well as a number of DER providers. As Staff compared each of the electronic marketplace demonstration projects submitted by the utilities, Staff found that the assumptions related to both costs and revenues varied, and therefore concluded each should be examined on its own merits. Staff found Con Edison's assumptions to be reasonable and the cost of the project is appropriate for the quantitative and qualitative benefits the project is expected to provide.

Con Edison's CONnectED Homes project is designed to increase customers' awareness of DER and guide them towards the products and services that will be most beneficial for them. It will do this by engaging customers when they sign up for service, will continue that engagement through periodic home energy reports, and providing an online marketplace where customers can engage with pre-vetted DER providers. Staff believes that Con Edison's CONnectED Homes project will provide the opportunity for the Company to evolve from a monopoly provider to a market facilitator through this multi-channel platform that leverages targeted multi-media communications to

drive traffic to an online DER marketplace that brings together a variety of third party providers and residential customers.

CONnectED Homes will add value for consumers by making it easier for them to understand their energy usage and to find appropriate DER providers. Customers will receive periodic home energy reports designed to encourage customers to better manage their energy usage through behavioral changes and through the purchase of DER. The integrated online marketplace should then facilitate customer purchase and installation decisions.

CONnectED Homes will also add value for DER providers by reducing customer acquisition costs. To do so, the Company will deploy a comprehensive customer engagement effort. An initial set of three pre-qualified vendors will be promoted to participating customers via targeted marketing campaigns. The number of vendors will be expanded in a later phase of the demonstration project. Various channels will be used to communicate with customers, including direct, digital, online Marketplace and contact center, and will be administered by Opower.

In the Commission's Track One Order, the Commission states "...utilities acting in concert will constitute a statewide platform that will provide uniform market access to customers and DER providers." Marketplace REV demonstration projects such as Con Edison's will provide crucial insight into the optimal design and pricing of these marketplaces and the lessons learned from this demonstration project could be utilized in the creation of the statewide platform.

Staff has determined that Con Edison's CONnectED Homes demonstration project complies with the requirements of the Commission's Track One Order. Con Edison will file the implementation plan with the Secretary within the next thirty days.

REV OBJECTIVES ADDRESSED

Enhanced Customer Knowledge and the Provision of Tools that will Support Effective Management of the Total Energy Bill

Con Edison's project filing identifies a lack of customer understanding regarding energy usage and a lack of understanding of the DER options available to them as "[o]ne of the most significant barriers to wide scale adoption of DERs in the residential segment..."⁴ This is consistent with a critical aspect of REV, which is raising consumers' awareness of the energy they consume and the products and services that are available to help them manage their usage. Once consumers are aware of how and why they consume energy, they should be in a better position to manage and reduce that usage in an economic manner. Staff finds that Con Edison's demonstration project helps improve customer awareness through the use of home energy reports combined with targeted DER offers. These home energy reports will educate consumers on how much energy they consume, will provide tips for how to reduce that energy usage, and will also contain DER products and services that the consumer is most likely to take advantage of or benefit from, based on an analysis of the customer's energy usage, household characteristics, and other factors.

Leveraging of Customer Contributions

Con Edison's platform, by facilitating transactions between DER providers and customers, will help animate the DER market. Since these DER products and services will be purchased by consumers, this will also increase the adoption of DER without direct utility investment. Staff finds that Con Edison's CONnectED Homes project effectively leverages customer contributions to facilitate DER adoption.

⁴ See Con Edison's July 1, 2015 CONnectED Homes Platform Demonstration Project filing, p. 4.

Market Animation

While Staff has concerns that the initial set of DER providers on CONnectED Homes will be limited, Con Edison has included in its addendum filing a mechanism to allow additional DER providers onto CONnectED Homes in Phase 3 - Project Optimization of the demonstration. Con Edison will qualify additional DER products from energy service providers through a RFP process that seeks to provide a cost-effective, quality product for customers with responsive customer care capability. The RFP will be open to DER providers including energy services companies offering residential electric supply. The Company filing also included a detailed list of criteria for selecting additional DER partners. In order to create a truly animated market, there must be no significant barriers of entry for reputable parties, even when this is at the expense of existing third parties, who may lobby for market barriers to prevent increased competition. While Staff finds Con Edison's proposal to expand the DER providers to be reasonable and as such the process shall be reflected in the project's implementation plan, the Company shall continue to explore opportunities to effectuate the expansion sooner rather than later.

DEMONSTRATION PROJECT ELEMENTS

New Utility Business Models

CONnectED Homes represents a new business model for the utility and an opportunity to earn revenues in a number of ways. First, CONnectED Homes provides Con Edison with a channel to supplement customer learning with targeted DER advertising that will provide advertising revenues. Second, Con Edison will have the opportunity to earn revenues from fees for qualified leads and/or from a percentage of the revenues from a converted sale. Finally, CONnectED Homes should provide system benefits

from increased DER penetration. Instead of being a uni-directional network delivering electricity to end-users, Con Edison is testing the potential to engage with customers and to be a referral and transaction platform provider. Con Edison's customers will be able to directly purchase small energy saving products from the online marketplace, and will be able to access pricing and reviews for other DER products, with links to purchase DER from partner sites. This platform is designed to both provide consumers with information about appropriate DER providers, while simultaneously reducing customer acquisition costs for those providers.

Identification of Economic Value

The Commission expects that each REV Demonstration Project will create value for a number of stakeholders, including the utility, the utility's third party partners(s), and customers. It is also important that the expected beneficiaries of this value are identified.

Consumers will benefit from an increased awareness of their own energy usage and how it compares to similar households in their area through home energy reports. The project will also provide them increased knowledge on the various DER products and services available to help them manage their energy consumption. Additionally, consumers will benefit from having an easy to access portal where they can research and purchase DER, and will enjoy any energy savings generated as a result.

DER providers will also benefit from CONnectED Homes by reduced customer acquisition costs through CONnectED Homes since it will be targeting communications to connect specific DER providers with the customers who stand to benefit the most from their particular product or service. DER providers will also benefit from consumers higher level of awareness of DER

without the cost of having to locate and educate consumers themselves.

Value will be created for Con Edison and its partners in a number of ways. First, CONnectED Homes is expected to generate advertisement, conversion, and other fees resulting from advertising and sales on CONnectED Homes and Enervee's online marketplace. Second, Con Edison expects that the increased outbound communications related to the project will help proactively inform customers and will, in the long-term, help reduce the number of customers who call in to Con Edison's call center. This will also generate additional value for all customers in the form of reduced costs, particularly as the project scales up.

Scalability

This demonstration project has the potential to grow past the initial demonstration filing, and its addendum filing, in both scale and scope. The initial launch of CONnectED Homes will occur in Brooklyn and Westchester neighborhoods, a subset of Con Edison's total service territory. At the demonstration's conclusion, Con Edison will determine whether CONnectED Homes should be expanded to additional parts of its service territory.

The demonstration project is also being launched with a limited number of DER categories and providers in large part to easily track progress and carefully vet the initial set of DER providers. However CONnectED Homes will expand this initial set of products to additional DER categories, as well as increasing the number of DER providers within each category in Phase 3 - Project Optimization which is currently planned to begin mid 2017.

Timeframe

Staff has concluded that Con Edison's CONnectED Homes project will be implemented in a way that will provide valuable

data with respect to DER marketplaces and customer engagement strategies in a reasonable timeframe. Con Edison's project has four phases, starting with Phase 0 - Project Development. Phase 0 includes the creation of the project filing and its addendum, the creation of an implementation plan, and finalizing negotiations with Opower, Enervee, and Bridgevine. Phase 1 - Project Launch, begins in Q1 2016 and continues through Q2 2016 and will involve the technical launch including finalization of vendor agreements, contact center training, and end-to-end testing of CONnectED Homes. Phase 2 - Demonstration Implementation, will begin Q3 2016 and continue through Q2 2018. During Phase 2, Con Edison and its partners will introduce to customers, run, and maintain CONnectED Homes. Finally, in Phase 3 - Project Optimization, which overlaps Phase 2 since it begins in Q3 2017 and continues through Q2 2018, Con Edison will begin expanding the scope of the project, adding additional DER categories and providers. In Phase 3, Con Edison will also work to optimize pricing and make other program adjustments and improvements, including better leveraging more granular customer data when and where available. The demonstration project term ends July 2018, although Con Edison provides what it believes to be revenue projections through 2022 assuming the project proves successful and is made permanent.

Private Contribution of Capital to the Distribution Network

While Con Edison's CONnectED Homes project does not directly address the private contribution of capital to the distribution network (in the form of DER) through third party partnerships, CONnectED Homes will encourage the increased penetration of customer-financed DER in the distribution system through the engagement and education of customers. CONnectED Homes will also test if that engagement and education is

successful at driving increased DER penetration at the distribution level.

AREAS FOR FURTHER DEVELOPMENT

Price and Rate Design

One important component of REV that can benefit from comprehensive real-world testing are alternative rate designs that better align customer incentives with system conditions. As proposed, CONnectED Homes does not include a rate design component. Con Edison has stated that while there are potential synergies between increased DER adoption and residential demand tariffs, it intends to test alternative rate designs in a separate demonstration project.

Milestones and Check Points

Through this demonstration project, Con Edison will be testing a new business model for the utility, determining whether the utility can lower customer acquisition costs for DER providers and whether educating consumers about DER options and their own energy usage will drive DER adoption. For each test scenario, acceptance or performance criteria will need to be developed and included in the implementation plan. The project milestones will be used as communication and quality control mechanisms, and to set expectations, share status information, and develop lessons learned. In addition, the milestones and checkpoints will be used as opportunities to evaluate the program and if appropriate make changes. This is an essential activity to develop effective project recommendations to inform REV and therefore the implementation plan will reflect detailed milestones and checkpoints.

Customer Access to Data

Staff concludes that while CONnectED Homes as proposed will add significant value to DER providers and Con Edison's

customers, CONnectED Homes could provide even more value to consumers by enabling them to download their own usage information in a consumer and computer-friendly electronic format from the utility's secure website. This would allow customers to share the data with additional third parties not on CONnectED Homes if they desired, thereby expanding customer options and the overall utility of the information. Staff believes that Con Edison can achieve this by including Green Button capability, and therefore it shall be included in the implementation plan.

POTENTIAL LEGAL BARRIERS AND/OR AREAS OF COMMISSION ACTION

Protection of Customer Information

The Commission's existing customer data policy is that electric utilities and third parties must protect customer privacy when proposing projects that involve the collection and use of granular customer data. Staff believes that Con Edison's CONnectED Homes project appropriately balances existing policy and the exploration of a new business model.

With respect to the sharing of customer data with core third parties providing analytics functions for Con Edison, the proposed demonstration project must comply with the December 3, 2010 Order, where the Commission considered earlier Opower projects with Central Hudson Gas and Electric and Niagara Mohawk and stated:

Opower is prohibited from using the information for any purpose other than to perform the utility function of administering this program and may not contact customers in any fashion beyond what it was specifically contracted to do; provide usage analysis reports.⁵

⁵ Case 07-M-0548, Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, Order on

Con Edison will not be required to obtain affirmative customer consent before sharing customer information with a third party partner who is performing the analytics function (i.e., inducing customers to manage their energy usage by providing them with specific information about their usage and how it compares to that of other similarly situated customers) and where sharing such information is necessary to perform that function. The agreements between Con Edison and their third party partner will detail the protections afforded to customer information and the restrictions placed on those partners regarding the use of that information. Con Edison will be required to file with the Secretary any contract between Con Edison and a third party partner in order for Staff to ensure that sufficient consumer protections are offered in conformance with the December 3, 2010 Order.

Third party providers selling products and services on CONnectED Homes will not gain open access to customer data. Instead, only the third party partner addressed above will have access to such data as they will be the entity providing the analytics service to Con Edison. Along with usage information and suggestions for more efficient energy use, the customer will also receive information regarding additional products and services that best suit the individual customer and may help further the customer's energy goals. If the customer chooses to obtain one or more of these products or services from a third party provider, the customer will first need to affirmatively consent to the release of their data to that provider, if applicable.

CONCLUSION

Staff has determined that the proposed Con Edison CONnectED Homes demonstration project complies with the objectives set forth in Ordering Clause 4 of the Track One Order. Staff will continue working with Con Edison to develop a detailed implementation plan. The implementation plan will include a detailed schedule, budget, projected milestones, and checkpoints. Staff will also continue to discuss the areas of further development with Con Edison and identify any issues that requiring Commission action. The implementation plan will incorporate the results of these discussions.

The implementation plan is expected to evolve and incorporate lessons learned or new developments within the scope of the project. The project implementation plan will be updated quarterly. The implementation plan and updates will be filed with the Secretary within thirty days.