



CONnectED Homes Platform

Demonstration Project

Addendum

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1.0 EXECUTIVE SUMMARY

This Addendum for the CONnectED Homes Platform (Platform) Reforming the Energy Vision (REV) Demonstration Project (Project) is a complete companion document to the Project outline filing dated July 1, 2015 (the Project Filing). The primary addition in the Addendum is the proposed online Marketplace described below. The Project Filing combined with this Addendum constitutes the entire filing.

The Project Filing was provided to the Department of Public Service Staff (Staff) in compliance with the Ordering Clause 4 of the Public Service Commission's (Commission) *Order Adopting Regulatory Policy Framework and Implementation Plan*, issued and effective February 26, 2015. Staff provided comments and feedback to Consolidated Edison Company of New York, Inc. (Con Edison) on the Project Filing.

The Project will now be executed in three phases:

- Phase 0: Project Development
- Phase 1: Project Launch
- Phase 2: Demonstration Implementation
- Phase 3: Project Optimization

This Addendum adds to the Platform an online Marketplace and includes a process for selecting additional distributed energy resource (DER) products from vetted third-party energy service providers (ESP). The expansion of the Platform aligns with Staff comments and feedback to the Project Filing, which centered around:

- Expanding customer choice
- Focusing on cost-effectiveness
- Providing an integrated marketplace
- Addressing customer motivation

Specifically, the Platform will include: (1) an online Marketplace for energy products and services, which will be available at the beginning of Phase 2, managed by Opower's partner Enervee; (2) outbound communications to customers that will feature explicit links to the Marketplace promoting a wider variety of DERs and integration with existing Con Edison demand side management (DSM) programs, also available at the beginning of Phase 2; and (3) a process for partnering with additional ESPs, which will be incorporated in Phase 3.

2.0 BUSINESS MODEL OVERVIEW

2.1 PROBLEM

As noted in the Project Filing, one of the most significant barriers to wide-scale adoption of DERs in the residential segment is a lack of customer understanding of which offerings are best suited to help them manage their energy usage, energy costs, and comfort in their homes.

On the partner side, leading and new market entrants in the DER space are making inroads in developing customer brand awareness. However, the cost of identifying, qualifying, and closing on new residential customers can be significant. Customer acquisition costs are widely considered to be a significant barrier to the expansion of DER markets. These costs will likely continue to be a barrier to wide spread adoption of DERs in Con Edison's service territory, even if they are reduced over time with the economies of scale and technological advances that are likely to accompany increased penetration of DERs.

2.2 SOLUTION

The CONnectED Homes Platform (Figure 2-1) is designed to remove barriers to residential adoption of DERs and animate the DER market by using customer usage data and advanced data analytics to match customer needs with vetted ESP DER products. In Phase 2, a set of pre-qualified vendors will be promoted to participating customers via targeted marketing campaigns to demonstrate and evaluate the proof of concept. The targeted marketing campaign will utilize various channels to communicate with customers, including direct, digital, online Marketplace, and contact center, and will be administered by Opower. Con Edison's DSM programs will be integrated into the targeted marketing campaign. In Phase 3 Con Edison will utilize a standardized process to vet additional ESPs and associated DER products across DER categories which are consistent with the Project's hypotheses, to participate in targeted marketing campaigns. Additional DER products vetted will include energy services companies (ESCOs) offering supply services to residential customers. The Platform will include Enervee's online DER Marketplace and use Con Edison's third-party contact center, administered by Bridgevine, to amplify the analytical value of the Platform and encourage the adoption of DERs at the point of customer connection.

Through this Project, Con Edison will deploy a comprehensive customer engagement effort as part of the Platform (Figure 2-1) in order to bridge the gap between ESPs and potential customers. Opower will deliver personalized communications about energy usage combined with actionable insights and specific energy-related offers that are matched to a customer's personal energy profile. Opower-developed communication will include offers and messages directing customers to the online Marketplace. The addition of the online integrated Marketplace, powered by Enervee, will expand customer choice by providing a website linking customers directly to retailers where they can purchase energy saving DERs at a competitive price. Customers will also have the opportunity to purchase small energy-saving products directly on the website.

Enervee will manage the Marketplace website and operate closed-loop online advertising marketing activities to maximize the website’s impact. Specifically, Enervee will:

- Provide an online Marketplace that includes a broad selection of energy-related products paired with customer educational tools, such as energy ratings and customer reviews
- Conduct online lead generation through digital advertising
- Manage relationships with retailers of DERs featured on the Marketplace website
- Enable a consistent and integrated experience between the Marketplace website and other Platform channels

Figure 2-1: CONnectED Homes Platform



HYPOTHESIS BEING TESTED

The expansion of the Platform to include the Enervee Marketplace in Phases 2 and 3, and the qualification of additional ESPs in Phase 3 will provide the ability to more robustly evaluate the Platform across all four stated hypotheses in the Project Filing.

2.3 LINKS TO DEMONSTRATION PRINCIPLES

This Addendum addresses in particular the REV goal embodied in the principle shown below.

Principle	Proposed Measures
5. Propose rules that will help create subsequently competitive markets; establish regulatory proposals to ensure safety, reliability, and consumer protection. [Service providers can retain intellectual property that results from base data that would be available to others.]	Con Edison will open the Platform to vetted ESPs in Phase 3, creating a competitive market for CONnectED Homes Platform.

3.0 MARKET ATTRACTIVENESS

3.1 UNIQUE VALUE PROPOSITION

3.1.1 Participating Customer

In addition to the benefits of outbound communications, which will provide customers with improved insights about their energy needs and access to personalized solutions and vendors to help address those needs, customers will also be linked to an online Marketplace. The Marketplace will provide customers with a comprehensive suite of tools designed to help them make informed DER choices, including product information, unbiased energy ratings, energy insights, and customer reviews.

3.1.2 Partners/Third-Party Providers

In addition to partnerships with Opower (providing customers with Home Energy reports and conducting targeted marketing campaigns) and Bridgevine (operating the contact center), Con Edison, through Opower, will partner with Enervee to build and manage the online Marketplace.

Third-party providers will benefit from direct access to Con Edison's customers through the Platform. Phase 3 of the Project will expand the offering of ESP DER products. During Phase 3, Con Edison will qualify additional DER products from ESPs through a Request for Proposal (RFP) process that seeks to provide a cost-effective, quality product for customers with responsive customer care capability. The RFP will be open to DERs consistent with the Project's hypotheses, including energy services companies offering residential electric supply. Below is a list of key criteria for selecting additional DER partners:

Selection Criteria	Relevance to Success
Reputable firms with established history of successful installations and quality products	Order fulfillment and product quality critical to sustained success
Willingness to pay advertising premiums and lead and conversion fees	Necessary to establish value of platform
Best in class companies with prominent market presence and signaling power	Participation of market leaders will signal value of platform to rest of market
Willingness to collaborate on data sharing of converted customers	Necessary to track demonstration project success
Customer service capability	Ensure customer questions and inquiries can be appropriately fielded

3.1.3 Utility and Customer Benefits

The Platform expansion to include the online Marketplace, beginning in Phase 2, and process for partnering with additional ESPs in Phase 3, will have the potential to drive customer actions that result in long-term energy efficiency and demand response benefits for Con Edison and customers including up to:

- 47,300 MWh of lifetime¹ energy savings from products sold during the demonstration phase on the online Marketplace
- 27,700 MWh of lifetime energy savings from behavioral energy efficiency
- 10% uplift in participation in promoted Con Edison DSM programs

3.2 CUSTOMER SEGMENTATION

All Platform customers will be targeted to engage in the online Marketplace. The Marketplace will have a wide range of appliances and large and small electronics that provide energy efficiency benefits to all customers.

3.3 CHANNELS

In addition to the three primary outbound channels (direct-mail Home Energy Reports, e-mail Home Energy Reports, and e-mail bill-ready notifications) and the contact center, customers will be engaged and motivated to pursue energy efficiency through the Enervee online Marketplace. The Marketplace will address a specific gap in the market for large energy-consuming appliances, providing a clear source of independent, high-quality information about product energy usage in combination with customer reviews and pricing. It will aggregate available products and consumer reviews from major sites, and it will provide an independent energy score for each product that is more selective and informative than currently available rating systems. The Marketplace will include hyperlinks that can bring customers directly to retailers' websites where they can purchase energy saving DERs at competitive prices. Customers will also have the opportunity to make direct purchases of small energy saving products on the site itself.

In addition to the online Marketplace, the Company also expects to drive revenue streams by offering DER products via ESPs in three categories in Phase 2 and expanding the initial DER categories and number of participating third-party ESPs in Phase 3, once proof of concept is achieved in the initial following areas:

¹ Lifetime savings for product sales from the Marketplace are calculated by multiplying the measure lives of a set of products that will be promoted on the Marketplace, forecasted savings for those products based on current market data from the Marketplace platform, and projected purchases influenced to more efficient models for each product category on Con Edison's Marketplace.

- **Solar Systems:** SunPower will pay conversion and referral fees for use of the analytical platform. Products will include residential PV systems and, potentially, residential solar plus storage systems.
- **Residential Energy Services:** HomeServe USA, which provides in-home energy services and product installation, will pay conversion and referral fees for use of the analytical platform. Initial products and services will be energy efficient audits/retrofits and energy appliance installations and repairs.
- **Con Edison/Nest Exclusive Bundles:** Con Edison and its partner, Nest, will promote an exclusive bundle of smart thermostats with energy saving services, which includes seasonal savings, a service that helps customers save on their cooling and heating energy usage by adjusting temperature settings.

3.4 ABILITY TO SCALE

The Project’s phased, progressive approach (Table 3-1) will allow sufficient evaluation of the various demonstration hypotheses and enable a determination, upon Project completion, of the long-term market viability of the Platform and its ability to deliver energy efficient savings.

Table 3-1: Project Phases

Phase	0. Project Development	1. Project Launch	2. Demonstration Implementation	3. Project Optimization
Milestone (Stage Gate to Next Phase)	Negotiations Complete <ul style="list-style-type: none"> • Partner contracts signed • DPS approval 	Successful Platform Build: <ul style="list-style-type: none"> • Attract vendors in key categories • Successful data transfer 	Platform Utilization: <ul style="list-style-type: none"> • Click-through rates • Qualified leads • Contact center volume • Vendor retention • Customer satisfaction 	Revenue Realization: <ul style="list-style-type: none"> • Revenue per source • Customer satisfaction • Vendor retention
Key Elements	<ul style="list-style-type: none"> • Platform provider contracted • DER providers signed-on 	<ul style="list-style-type: none"> • Develop platform • End-to-end testing • Contact center training • Platform go-live 	Evaluate response of specific audiences to: <ul style="list-style-type: none"> • DER combinations • Channels • Messages 	<ul style="list-style-type: none"> • Learn how to leverage more granular customer data • Optimize profit by refining categories and pricing • Optimize for energy efficiency gains
DER Categories	N/A	N/A	<ul style="list-style-type: none"> • Solar • Home services • Smart thermostats 	<ul style="list-style-type: none"> • Further expansion of DER products and providers • Expand to ESCOs

4.0 DEMONSTRATION PLAN

4.1 METRICS FOR SUCCESS

This Project will have a project management team, led by Con Edison that will conduct reviews and utilize metrics, as listed in the Project Filing.

4.2 TIMELINES, MILESTONES, AND DATA COLLECTION

The timeline of the Project Implementation and Evaluation Phases is not impacted by the expansion of the Platform scope. The Implementation Phase is projected to begin mid-2016 and continue for two years through mid-2018. The Evaluation Phase will run concurrent with the Implementation Phase.

4.2.1 Implementation Phase

The Project Implementation Plan, to be filed upon approval of the Project Filing and this Addendum by DPS Staff, will provide a work plan with milestones and checkpoints throughout the Project phases.

4.2.2 Evaluation Phase

The Project Implementation Plan will include an outline of the quarterly reports to be provided to the Commission. The reports will provide an update on implementation progress and spending, detailing deviations and noting task and activity progress.

4.3 PARTICIPATION

4.3.1 Target Population, Sample Size, Control Group

The target populations will remain as stated in the Project Filing. In addition, Platform customers will have access to and be engaged to utilize the online Marketplace. The Marketplace will have a wide range of appliances and large and small electronics that provide energy efficiency benefits to all customers.

4.3.2 Third-Party Partner(s) – Specifics of Agreement

The Company has selected Opower to build the CONnectED Homes Platform. Opower will partner with Enervee to build and manage the online Marketplace. Enervee will provide a unique Marketplace website for enabling customers to understand DER products' energy efficiency benefits and providing a clear source of independent, high-quality information about product energy usage in combination with customer reviews and pricing. Customers will have access to a comprehensive suite of tools designed to help them make informed DER choices, including product information, unbiased energy ratings, energy insights, and customer reviews. The website will link customers directly to retailers where they can purchase DERs at the lowest

price. Customers will also have the opportunity to make purchases of small energy saving products directly on the website.

4.3.3 Motivating Customers/Communities

Through this Project, Con Edison will deploy the CONnectED Homes Platform, which includes a comprehensive customer engagement effort (direct, digital, online Marketplace, and contact center) in order to bridge the gap between DER providers and their customers. It will do so by delivering personalized communications, in-line with Project strategy, by target segment, about energy usage combined with actionable insights and specific energy-related offers that are matched with customer's personal energy profile. The Company hypothesizes that the Platform will lower the cost of customer acquisition for DER providers and has the potential to:

- Generate up to \$1.9M in new revenue for Con Edison
- Prompt customers to invest in thousands of DER products and services including solar systems, smart thermostats, home energy services, and energy-efficient appliances and electronics featured on the marketplace
- Deliver up to 75,000 MWh in savings from both cost-effective behavioral energy efficiency and from lifetime savings from energy efficient products that are sold during the demonstration phase for customers and the State of New York

The online Marketplace website will enable customers to understand the energy efficiency benefits of DER products. The Marketplace will be completely digital, and will be promoted through a comprehensive online and outbound communications strategy, tied to the targeted campaigns, in order to drive customer participation.

The communication touch-points (direct, digital, and contact center) will also be used to promote and educate customers about the Company's approved DSM programs.

4.4 CONDITIONS AND BARRIERS

4.4.1 Market Rules and Standards

The Enervee Marketplace solution does not require the disclosure of any customer information. Customers who use the Marketplace functionality may need to provide some limited data (e.g., name, address, and account numbers) to Enervee to use certain product offerings, such as rebate processing. To the extent additional Marketplace functionality involves the direct disclosure of customer data, the offerings are consistent with Opower's existing energy efficiency services as provided for under the 2010 Commission Order on Customer and Data Disclosure, which provides guidelines regarding the direct disclosure of customer data used to drive energy efficiency savings through increased rebate program participation and the sale of energy efficient products.

4.4.2 Consumer Protection

Enervee's e-mail communications with customers will contain similar elements to Opower communications as necessary to comply with CAN-SPAM². Enervee's advertising content will be properly vetted for potential false or misleading claims under the Federal Trade Commission Act³. Incentives may be provided to customers to participate online.

4.4.3 Channel or Market Challenges

There always exists the challenge, in an online marketplace, of gaining consumer confidence and trust. Joining the marketplace technology with Con Edison, a trusted agent, and engaging customers through proactive and branded communications, will reduce the adoption risk associated with this challenge. There are no additional channel or market challenges that will impact the Project with respect to addition of the Enervee online Marketplace or partnering with additional ESPs in Phase 3.

² CAN-SPAM (Controlling the Assault of Non-solicited Pornography and Marketing Act), Pub. L. No. 108–87, §1, 117 Stat. 2699 (Dec. 16, 2003), codified at 15 U.S.C. §7701 *et seq.* 18 U.S.C. §1037.

³ Section 5 of the Federal Trade Commission Act (FTC Act), Ch. 311, §5, 38 Stat. 719, codified at 15 U.S.C. §45(a).

5.0 FINANCIALS

5.1 UTILITY REVENUE STREAMS

The online Marketplace will provide an added revenue stream incremental to the revenue streams listed in Section 5.1 of the Project Filing. Consumers will be provided with a choice of energy efficiency products along with information on price and efficiency levels. Con Edison will earn revenue when informed and motivated consumers choose to purchase these high efficient appliances or large electronics in the online Marketplace, or when purchasing small energy-saving products directly on the website, and Con Edison will also earn revenue promotions placed on the Marketplace portal.

5.2 INVESTMENTS

5.2.1 Timing of Investments

Investment timing and details will be finalized upon approval of the Project Implementation Plan and contracts with partners. Estimated project cost is provided in Table 5-1. Costs will be shared between the Company and its partners.

Table 5-1: Total Costs

	2015	2016	2017	2018*
Total Costs	\$0.67M	\$7.99M	\$7.65M	\$2.37*

**Demonstration ends July 2018. Figures are representative of first seven months of 2018.*

5.3 RETURNS

In addition to anticipated energy efficiency savings and increased customer participation in DSM programs, Con Edison expects the Platform to generate additional revenue from the online Marketplace and expansion, in Phase 3, of vetted ESPs. Additional revenue generated for Con Edison during the demonstration period from the Platform expansion is expected to be approximately \$650,000. Total estimated Con Edison revenue due to the Platform expansion through 2022 is approximately \$14,500,000.

Table 5-2: Estimated Total Project Revenue*

	2015	2016	2017	2018**
Con Edison Estimated Revenue	\$0.0M	\$0.523M	\$0.926M	\$0.488M*

**Revenue represents proceeds generated from DER providers. These figures are not inclusive of projected benefits from energy and demand savings or reduction in cost of service.*

***Demonstration ends July 2018. Figures are representative of first seven months of 2018.*

5.4 COST EFFECTIVENESS

5.4.1 Qualitative Benefits

In addition to the benefits identified in the Project Filing, the Project will provide Con Edison with valuable data and research that can help answer the following questions:

- Will an online Marketplace accelerate and increase DER adoption?
- What is the revenue generation potential for Con Edison from fees associated with an online Marketplace?

5.4.2 Quantitative Benefits

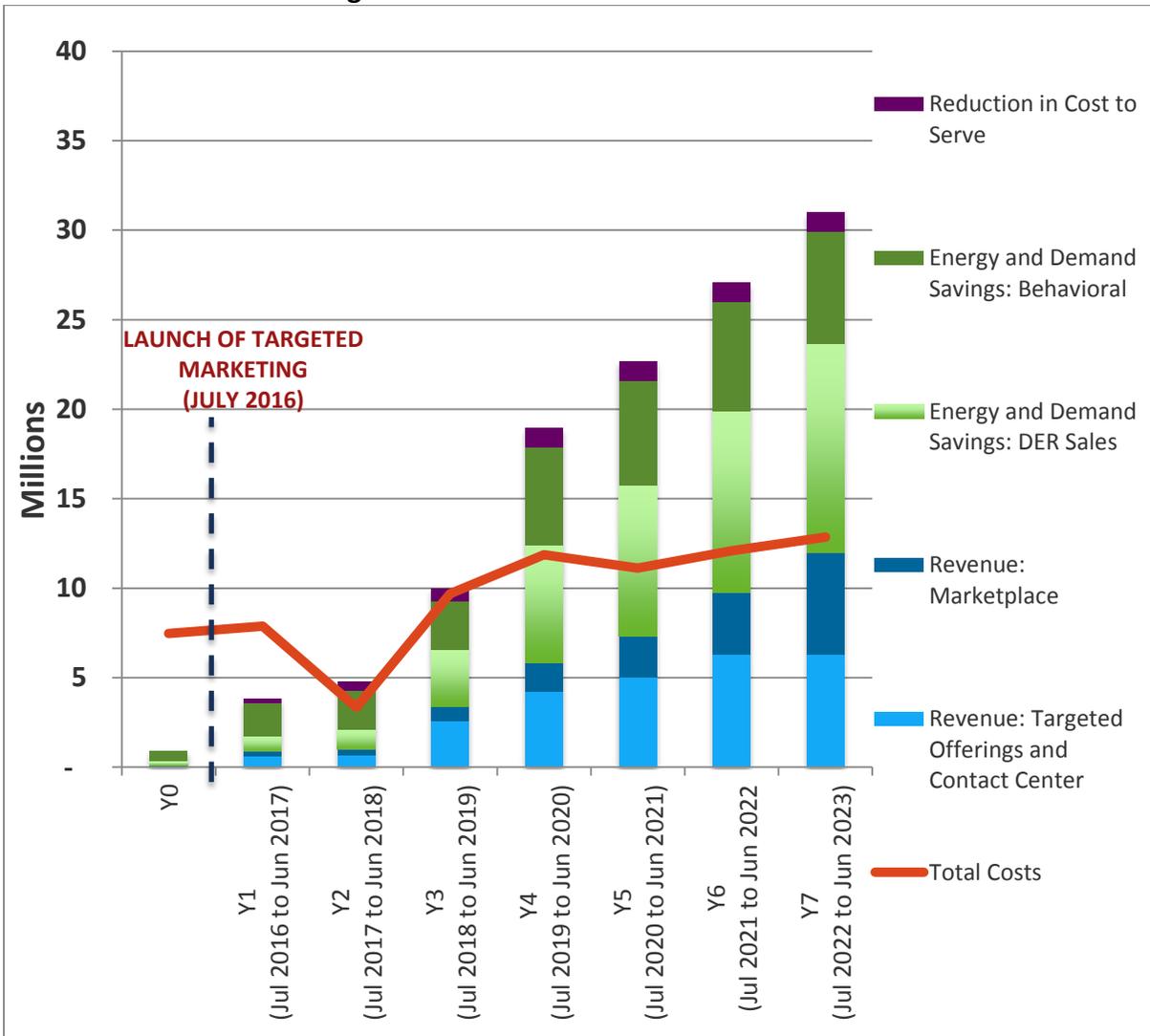
The addition of the Enervee online Marketplace will increase the overall estimated quantitative benefits from the CONnectED Homes Platform. The benefits fall into four categories, updated from the Project Filing as follows:

- 1) **Customer Engagement:** The Platform will aim to engage approximately 1,115,000 customers within the demonstration territory with personalized energy information and insights, providing increased comfort and control as well as energy savings and energy options.
- 2) **Revenue from DER conversions and advertising:** The Platform has the potential to generate up to \$770,000 per year in revenue for Con Edison from third-party partners during the demonstration period.
- 3) **Cost-to-Serve savings:** Outbound communications, like those included in this Platform, can help proactively answer customers' questions about their energy usage or can direct customers' to self-service digital tools available on Con Edison's website, which can, in the long run, help mitigate the number of customers who call in to the Con Edison call center. Potential cost-to-serve savings during the Project could be up to \$750,000 in 2016 and 2017 combined, and could potentially increase as the Platform grows in subsequent years.
- 4) **Energy Efficiency:** A variety of messages will be used in the Platform's communications that have also been proven to motivate customers to reduce their energy usage, when used as a part of more traditional behavioral energy efficiency programs. Con Edison estimates that the Platform will prompt behavioral changes and lead to the sale of energy efficient products in 2016 and 2017 that can generate lifetime savings of 75,000 MWh that could translate to over \$6 million in benefits using current methods of calculating the system benefits of energy efficiency investments.

5.4.3 Cost Effectiveness

In addition to potential revenue earned and the areas identified in the Project Filing, the Marketplace is expected to provide energy efficiency and DSM benefits as well as cost-savings from reduced service costs. Figure 5-1 depicts the cumulative potential benefits of the Platform.

Figure 5-1: Platform Cumulative Benefits



* Y0 represents Phase 0 and 1 activities

** Y1 – Y2 represent Project Implementation phase’s cumulative benefits

*** Y3-Y7 represents post-demonstration Platform cumulative benefits

**** Energy efficiency savings represent the NPV of lifetime savings

6.0 REPORTING

Quarterly reports will be filed with the Commission Secretary and provided to Staff for the period of the demonstration. The report will provide Staff an update on implementation progress according to the work plan and budget, detailing deviations and noting task and activity progress. In addition, the report will capture, to the extent available at the time of the report, key project information, such as in-service dates, incremental costs incurred, operating results, market learnings, and other project benefits that are observed.

7.0 CONCLUSION

The CONnectED Homes Platform has the potential to deliver added benefits to customers, ESPs, and Con Edison with the inclusion of an online Marketplace, integration of Con Edison's DSM programs and a process to include additional vetted ESPs.

Customers will benefit from:

- Increased ESP competition and DER selection
- Wide choice of competitively priced DER products
- Increased energy efficiency from greater DER adoption, equating to a reduction in energy costs
- Energy efficiency and DSM education resulting in measurable energy savings through behavior changes

ESPs will benefit from:

- Reduced customer acquisition costs
- Ability to target customers most likely to benefit from DER products
- Engaged and knowledgeable customer base

Con Edison will benefit from:

- Engaged and motivated customers focused on energy efficiency and DSM
- Demonstrated alternate revenue stream based on energy efficiency and DSM
- Platform from which to engage customers across the service area on energy efficiency and DSM