# REV Demonstration Project Implementation Plan

# Building Efficiency Marketplace

**Date: November 20, 2015**

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## Executive Summary

This Project Implementation Plan for Con Edison's Building Efficiency Marketplace Reforming the Energy Vision (REV) Demonstration Project (Project) sets forth the Project's demonstration design, roles and responsibilities, Project work plan and budget, and reporting plan.

The Project outline, dated July 1, 2015, was determined on August 3, 2015 by the Department of Public Service (DPS) Staff (Staff) to be in compliance with Ordering Clause 4 of the Commission's February 26, 2015, *Order Adopting Regulatory Policy Framework and Implementation Plan* (February 26 Order). On November 10, 2015 DPS Staff issued a detailed assessment of the Project outline, noting again the Project's alignment with the objectives set forth in Ordering Clause 4 of the February 26 Order, and including a discussion of the project implementation plan to be filed by Con Edison. This document provides the implementation plan for the approved Project outline. It is necessarily a living document and may be updated during Project execution due to new discoveries. Test hypotheses, population, and scenarios based on market analysis and estimation may change over the course of the Project, requiring updates to the scope, schedules, and costs.

Con Edison in partnership with Retroficiency, a leading provider of data analytics and software solutions to utilities and commercial customers, will execute the Project, which is designed to examine how interval meter data analytics can be leveraged to enable:

- Targeting and multi-channel engagement of commercial customers with high energy efficiency savings and demand reduction potential
- Web-based portals to engage customers with details about how their buildings consume energy today, as well as their potential energy savings and demand reduction opportunities
- A marketplace to streamline connections between customers and energy efficiency market partners[1]
- A virtual, automated savings measurement and verification process to provide customers with visibility into achieved savings and to maximize the likelihood that implemented projects continue to perform over time

The Project will be executed in two phases:

Phase 0: Demonstration Planning
Phase 1: Demonstration Implementation
Phase 2**:** Market Launch

[1]Con Edison's Market Partner Network (Network) is made up of contractors, distributors, suppliers, and manufacturers of energy efficient equipment. The Network also includes skilled professionals, such as architects, engineers, and energy consultants, that provide services to assist Con Edison's Commercial and Industrial customers in meeting their energy savings goals.

Project goals include:

- Delivering enhanced customer engagement through rich customer experiences with data-driven insights and actionable information
- Targeting offerings to drive higher penetration in constrained areas of the system
- Enabling building owners and managers to more quickly realize the benefits of energy efficiency and demand management to reduce their utility bills and environmental footprint
- Increasing dramatically the pace and volume of market activity related to efficiency related products and services
- Increasing market value for Con Edison's market partners by expanding market opportunities and reducing soft costs

Its Brooklyn-Queens Demand Management program (BQDM), Con Edison has started to witness how leveraging data analytics, like those featured in the Project, can lead to substantial increases in market activity. In this Project, Con Edison will augment its capabilities developed in BQDM in several ways, including:

- Providing customer access to virtual energy assessments through an engagement portal, giving building owners a new way to access and interact with their building analysis and identify savings opportunities
- Streamlining the implementation process for energy efficiency projects by offering customers project development tools, fee-based consulting support, and bid management functionality
- Supporting market partner objectives by providing new fee-based tools and resources that will give them access to more projects and potential customers
- Testing and refining new monetization strategies that will serve to inform future rate design and the development of a future DSP

## Section 1: Demonstration Design

The Project has two phases that are incremental and expected to occur in sequence. This section will detail the hypotheses being evaluated, the population targeted, and the scenarios being evaluated. Checkpoints, detailed in Section 1D, will be utilized to monitor and inform progress. Throughout the phases and scenarios, the benefits of data analytics to inform energy efficiency and demand management programs will be continuously evaluated in order to inform future rate design and the development of a future DSP.

Through implementation of energy efficiency and demand management programs, Con Edison and Retroficiency will seek to leverage new and innovative technologies to increase customer awareness and participation in building efficiency programs, identify distributed energy resource (DER) opportunities that can be implmented with minimal time and resources, and bring those opportunities to a new marketplace in a much quicker and more cost-effective way for new market participants.

Con Edison has partnered with Retroficiency to conduct detailed virtual audits on thousands of NYC buildings without ever entering the building. The Retroficiency Virtual Energy Assessment ("VEA") technology uses a building's interval consumption data and determines energy savings potential and specific efficiency opportunities. This high-speed energy modeling technology provides building-specific recommendations across the entire demand profile of the building. These virtual audits identify commercial and multi-family buildings with the highest energy savings potential, which will drive targeting and marketing efforts.

Phase 0 will focus on putting core demonstration elements into place, including performing the initial batch of virtual audits and launching the customer portal that will be used to interact with the commercial buildings' test population and market partners. The initial batch of virtual audits, conducted using the VEA technology, will focus on the subset of commercial buildings with interval meter data identified as having the greatest energy savings potential. This data will be used in Phase 1. Phase 0 will begin following plan approval and contract finalization between Con Edison and Retroficiency, and will conclude upon demonstration of an interactive customer website populated with VEA data.

In Phase 1, Con Edison and Retroficiency will begin engaging commercial customers, demonstrating the benefits of data analytics. Approximately 400 customers with interval meter data and medium- to high-energy savings potential will be directly engaged. Through targeted marketing and sales outreach, customers will be offered a portal to review and interact with their virtual audit. Over time, this same portal will be the jumping off point for customers to engage the services of Con Edison to scope energy conservation measures (ECM) projects, offer services to match customers with market partners best suited to execute ECM projects, and promote third-party financing to facilitate energy efficient upgrades. In addition, market partners involved in ECM activities will be asked to participate in the demonstration, taking on projects and engaging customers through the portal.

Phase 2 is a two-year continuation of Phase 1 at an expanded scale. The customer population will be expanded to 1,400 customers in the first year and up to 2,100 in the second year of Phase 2.

## A) Test Statements

The Project Implementation Plan intends to demonstrate that a marketplace with advanced energy data analytics which identifies and quantifies energy savings and demand reduction potential will increase DER awareness and implementation. Con Edison, in partnership with Retroficiency, will demonstrate the market potential and test related hypotheses, as defined in Table 1-A-1. The hypotheses are based on estimates and analysis and are expected to prove-out by completion of the Project.

This Project asserts that most commercial customers with current interval metering capability are interested in ECM and DER. However, the disjointed marketplace, the lack of sufficient analytics and meter data, the expense of projects, and the difficulty in assessing value of ECMs create barriers to participation by commercial customers. Con Edison along with Retroficiency will demonstrate that providing an integrated offering of advanced energy data analytics with an associated web portal, targeted marketing, project financing, and vetted market partners focused on ECM projects will create a viable marketplace.

Hypotheses 1a, 2a, and 3a will focus on determining if customers, engaged with accurate, analytically derived insights into their building efficiency and provided the ability to observe and monitor the effect of ECM actions, will engage in a Building Efficiency Marketplace.

Hypotheses 4a, 5a, and 5b will focus on assessing if commercial customers are more likely to engage in ECM projects if they are guided through the process to help overcome the complexity, expense, and variety of the marketplace. Con Edison will assess if customers desire utility-consulting services to guide them through the scoping of the ECM projects, lining up financing options and connecting customers to market partners.

Hypotheses 6a, 6b, and 6c will focus on creating a more robust Building Efficiency Marketplace, by assessing varying avenues of market partner engagement and determining if market partners are interested in a marketplace and receiving incremental benefits.

**Table 1-A-1: Implementation Hypotheses**

| Test Statement | Hypothesis |
|---|---|
| **We believe…**advanced energy data analytics can be used to:<br><br>1) identify, measure, and verify energy efficiency and demand management project opportunities in commercial buildings<br><br>2) motivate commercial customer action to investigate energy efficiency and demand management projects | **If…**commercial customers from the test population (Table 1-B-1) are directed to a Building Efficiency portal through targeted marketing,<br>**Then…** 25% of participating customers will make an initial visit to the web portal. (1a) |
| | **If…** participating customers are engaged with accurate, analytically derived insights specific to their building(s),<br>**Then…**40% of participating customers will want to learn more about how they could realize identified savings opportunities. (2a) |
| | **If…** customers are provided with access to ongoing virtual measurement and verification of implemented projects,<br>**Then**…35% of customers that implement projects will visit their M&V results in the portal. (3a) |
| **We believe…**the complexity of determining optimum ECM benefits, a potentially costly undertaking, is a significant hurdle for commercial customers | **If…**commercial energy customers are provided targeted and streamlined consulting services to scope ECM along with a project bid platform to connect customers with qualified vendors,<br>**Then…** 30% of participating customers will implement projects that include consulting fees as a percentage of project cost. (4a) |
| | **If…**commercial customers can be provided with access to competitive third-party financing options for ECM projects,<br>**Then…** 37% of participating customers will utilize financing options. (5a)<br>**Then…** lending institutions will pay a finders fees based on total project costs. (5b) |
| **We believe**…market partners focused on executing ECM desire:<br><br>1) a means to effectively and efficiently identify and reach new customers<br><br>2) a means to provide relevant bids on project opportunities. | **If…** market partners are presented with the Building Efficiency Project portal, allowing bidding and connections to relevant, scoped projects with engaged customers,<br>**Then…** They will advertise their products on the portal to reach a focused customer group. (6a)<br>**Then…** They will subscribe to the portal service to gain a means to effectively and efficiently reach and retain customers. (6b)<br>**Then…** 75% of projects will include a project development fee paid to Con Edison based on a percentage of project cost. (6c) |

## B) Test Population

The Project will focus on mid- to large-sized customers across all major commercial building types, including offices, retail, hotels, hospitals, warehouses, and schools. Each of these customer types offers meaningful energy efficient opportunities and allows the Project to make the maximum impact possible. Project outcomes can inform the development of the future DSP by creating a system where commercial buildings can be smart energy consumers and potentially participate in Demand Side Management (DSM) marketplaces, while a DSP provider will have better insight into energy requirements and the ability to manage a DSP.

Phase 0 – Demonstration Planning has no test population; this is a planning phase only.

Phases 1 and 2 will have two test populations, commercial customers with interval meter data and market partners actively engaged in conducting ECM projects (see Table 1-B-1). Commercial customers span all major building types (Figure 1-B-1) with historical interval meter data. This allows for insights to be as granular as possible and enables rapid program ramp-up. Currently, there are approximately 2,100 analyzable commercial buildings with demand greater than 500 kW, the optimal target. The 2,100 buildings include buildings in the BQDM Program target area.

The Phase 1 commercial customer test population will be selected based on buildings with the greatest energy savings potential as identified by the VEA software. Market partners for Phase 1 will be selected from the market partners actively engaged in existing programs. Focusing on customers with high potential savings in Phase 1 allows for rapid ramp-up and the ability to test-out and adjust both the Project's hypotheses and test scenarios, while also enabling adjustments in marketing, pricing, partnerships, and portal design to ensure REV demonstration efficacy and efficiency benefits. Con Edison estimates approximately 400 buildings will be selected in Phase 1.

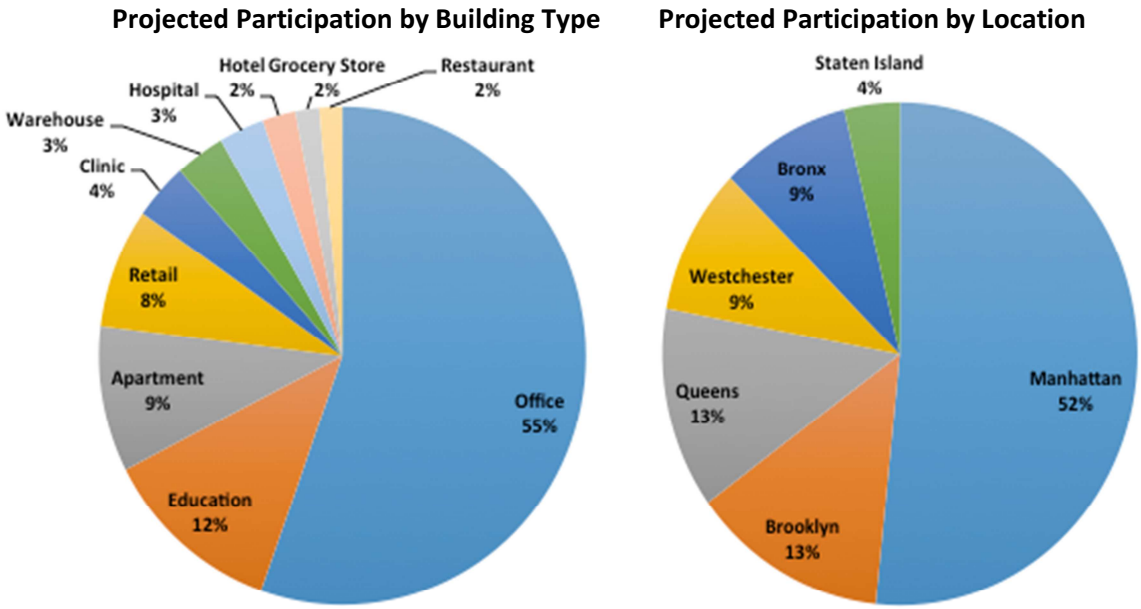
Phase 2 is scheduled to begin one year after Phase 1 starts and will be informed by Phase 1 milestones, as defined in Section 3. The Phase 2 test population will expand to incorporate all 2,100 commercial, institutional, and multi-family buildings with demand greater than 500 kW that have at least one year of historical electric interval meter data. In both Phases 1 and 2, commercial customers across all building types in the Con Edison territory will be targeted (see Figure 1-B-1).

**Table 1-B-1: Test Population**

| Project Phase | Test Population Description | Selection Method |
|---|---|---|
| **Phase 1:** Demonstration Implementation | All commercial, institutional, and multi-family buildings that have at least one year of historical electric interval meter data (approximately 400 buildings) | • Building and data that can be analyzed by the VEA software<br>• VEA shows medium- to high-savings potential |
| | Market Partners actively engaged in ECM projects | • Vetted to determine that the market partners are viable and have a verifiable business record with commercial customers; vetting will include:<br>– Demonstrated capability<br>– Reliability<br>– Safety record |

| Project Phase | Test Population Description | Selection Method |
|---|---|---|
| **Phase 2:** Market Launch | All commercial, institutional, and multi-family buildings that have at least one year of historical electric interval meter data (approximately 2,100 buildings) | • Building and data that can be analyzed by Retroficiency's VEA software<br>• Test population will be scaled up to 1,400 buildings in the first year of Phase 2 and up to 2,100 buildings in the second year of Phase 2 |
| | Market Partners engaged in ECM projects | • Vetted to determine that the market partners are viable and have a verifiable business record with commercial customers; vetting will include:<br>– Demonstrated capability<br>– Reliability<br>– Safety record |

**Figure 1-B-1: Test Population Building Types and Location**




## C) Test Scenarios

Project implementation will execute test scenarios along three main paths (see Table 1-C-1). Each scenario path will be tied to the test hypotheses in Table 1-A-1 and aligned to the test population of commercial customers or market partners.

Due to the dynamic energy environment and advancements in energy efficiency in recent years, variance and adjustments in the scenarios are expected. Changes will be highlighted and reported to the Commission during the quarterly reporting process, per Section 4.

**Table 1-C-1: Customer Engagement Test Scenarios**

| Test Scenarios | Description |
|---|---|
| **Participating Buildings** | Evaluate level of marketplace participation by viable commercial customers through a phased approach.<br>• Phase 1:<br>– Approximately 400 commercial customers (see Table 1-B-1) will be targeted for outreach, via print mail.<br>– Of the 400 commercial customers initially targeted through mailings, the top 100 with the greatest energy savings potential, as identified by the VEA, will be directly engaged by Con Edison business development representatives.<br>• Phase 2:<br>– Expand portal access to test population as described in Table 1-B-1.<br>– Continue engaging customers through direct mailings and business representatives, providing increased portal awareness.<br>– Refresh analytics, provide accurate, up-to-date energy efficiency opportunities to customers. |
| **Customer Outreach** | Evaluate methodology for engaging customers and marketplace partners.<br>• Customers will be made aware of the Building Efficiency Portal through multiple channels including print mail, e-mail, phone outreach, and in-person meetings.<br>• Outreach method results will be tracked to understand the effectiveness of each.<br>• Leverage early adopters to become vocal adopters. |

| Test Scenarios | Description |
|---|---|
| **Monetization Strategies** | Evaluate the potential for a self-sustaining Building Efficiency Marketplace and the level of market interest in engaging in ECM projects through a utility portal by providing multiple avenues by which market partners may participate. Market partners will be engaged to participate through the Company's established Market Partner Network. Con Edision, through its varying utilty services currently engages with over 800 market partners who have the potential to benefit from the portal. In addition, Retroficiency has an engagement specialist that is also responsible for market partner engagement.<br>This scenario will run continuously in Phases 1 and 2.<br>• Market Partner Advertising on Customer Portal:<br>- Evaluate market partner interest/willingness/success in advertising on portal<br>• Providing Market Partner Customer Leads:<br>- Evaluate market partner interest/willingness/success in obtaining actual and potential ECM project leads<br>• Providing Market Partner Portal Access:<br>- Evaluate market partner interest/willingness/success in subscribing to portal access to facilitate market partner and commercial customer transactions<br>• Consulting Fees<br>- Evaluate commercial customers' interest/willingness to pay for utility-led ECM-scoping services of project requirements<br>• Financing Lead Fees<br>- Evaluate financial partners' interest/willingness in obtaining actual and potential ECM project leads |

## D) Checkpoints

The Building Efficiency Marketplace REV Demonstration Project will be managed by Con Edison in partnership with Retroficiency. The two companies will establish a Project management team and governance structure (see Section 2B) to review and monitor the Project implementation. Key checkpoints, listed in Table 1-D-1, will identify points at which the Project team will evaluate implementation execution and determine the need for implementation strategy adjustments.

Each checkpoint has key metrics that represent what the implementation team believes is achievable and provides an opportunity to offer suggestions for improvement. Checkpoints that do not meet expected targets will undergo further analysis to ascertain impacts on the Project and identify root causes. Through the quarterly reports submission detailed in Section 4 below, the implementation team will detail checkpoint status, applicable remedies, and strategy modifications. At times, due to the dynamic nature of the demonstration and the intent to test varying hypotheses (see Table 1-A-1), checkpoint targets may move in both directions within phases and adjust up or down based on customer and market partner reactions to the marketplace and operational risk. Operational risk can include changing economic dynamics and the outcomes of REV proceedings.

## Table 1-D-1: Checkpoints

| Checkpoint | Description |
|---|---|
| **Participating Market Partners Engaged in ECM** | **Measure**: Market partners engaged in the Project<br><br>**When**: Phase 2: Initial, Midpoint, and End of First Year<br>**How**: Based on total of market partners engaged on Marketplace or used as referral based on utility-consulting ECM project scoping<br><br>**Expected Target**: Based on increase in market partners engaged<br>Phase 2 Start: 30 market partners engaged<br>Phase 2 Midpoint Year 1: 45 market partners engaged<br>Phase 2 End Year 1: 60 market partners engaged<br><br>**Impact**: Limited market partner engagement may affect the creation of an efficient market, restrict customer options, and demonstrate that hypotheses 5a, 5b, and 6a-c do not hold true.<br><br>**Solutions/Strategies if Results Below Expectations:** In line with root-cause analysis, actions may include reassessing targets, increasing marketing and outreach efforts, or adjusting monetization strategies to encourage market partner participation. |
| **Customer and Market Partner Engagement** | **Measure:** Conversion Rate<br><br>**When:** Phase 1: Midpoint and End<br>Phase 2: Midpoint Year 1 and End Year 1<br><br>**Expected Target**: % based on conversion rate<br>Phase 1 Midpoint: 6 customers<br>Phase 1 End: 12 custopmers<br>Phase 2 Midpoint Year 1: 2% of total customers<br>Phase 2 End Year 1: 3% overall conversion rate<br><br>**How:** Total number of ongoing ECM projects, either by market partner or in utility consulting scoping<br><br>**Impact**: Translating analytical services into ECM projects is critical to demonstrating the value in the marketplace and overall customer interest/affordability in energy efficiency. Variations in conversion rate will need to be revisited due to the impact to revenue predictions and program marketing costs and may demonstrate that hypotheses 1a, 2a, and 3a do not hold true.<br><br>**Solutions/Strategies if Results Below Expectations:** In-line with root-cause analysis, actions may include reassessing target, increasing marketing and outreach efforts, or portal redesign to increase outreach and drive portal awareness along with surveying customers to inform them of other marketing and customer engagement options. |

| Checkpoint | Description |
|---|---|
| **Projects Implemented** | **Measure**: Projects arranged by utility-consulting services<br><br>**When**: Phase 1: Midpoint and End<br>Phase 2: Midpoint Year 1 and End Year 1<br><br>**How:** Count of projects arranged by utility-consulting services<br><br>**Expected Target:** Based on scoped projects under contract<br>Phase 1 Midpoint: 5% under contract<br>Phase 1 End: 10% under contract (cumulative)<br>Phase 2 Midpoint Year 1: 15% under contract (cumulative)<br>Phase 2 End Year 1: 20% under contract (cumulative)<br><br>**Impact**: Key monetization strategy will be affected and may demonstrate that hypothesis 4a does not hold true. This is a critical hypothesis that customers desire consulting services to guide them along this path. Determination will need to be made on customer willingness to pay for services, obtain fees through market partners, or capture through bill financing.<br><br>**Solutions/Strategies if Results Below Expectations:** In-line with root-cause analysis, actions may include increased consumer and market partners outreach to drive portal awareness along with surveying customers to inform them of other marketing and customer engagement options. |
| **Revenues** | **Measure:** Revenues earned across three categories: project development fees, consulting fees, and financing fees<br><br>**When:** Phase 1 End, Phase 2 End of Year 1<br><br>**How:** Contract data<br><br>**Expected Target:** Phase 1 End: $177,000<br>Phase 2 End of Year 1: $1,632,000<br><br>**Impact:** Creating a marketplace for energy efficiency is key to this Project; otherwise, this may demonstrate that hypotheses 4a, 5a, 5b, and 6a-c may not hold true.<br><br>**Solutions/Strategies if Results Below Expectations: In**-line with root-cause analysis, actions may include assessing and analyzing the number of participants, average ECM project and projected savings, and engagement success. Depending on which area is identified as a limitation, coordinate with partners on best solution. |

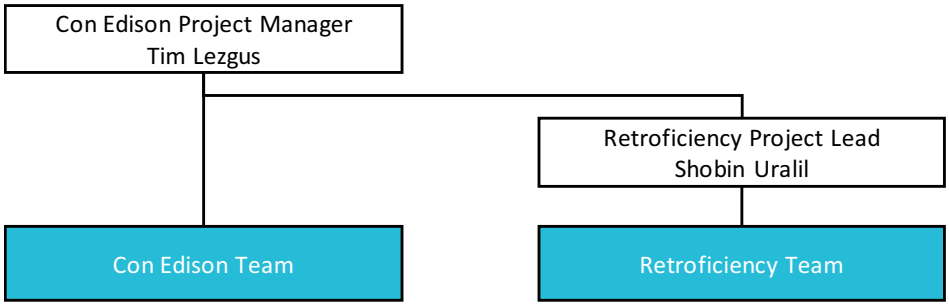
| Checkpoint | Description |
|---|---|
| **Project Impact** | **Measure**: Estimated total kW and kWh saved by the projects originating through the Project<br>**When**: Phase 1 End, Phase 2 End of Year 1<br>**How:** Utilize pre- and post-VEA data to assess Project savings<br>**Expected Target**: Phase 1 End: 4.32 Million KWh<br>Phase 2 End of Year 1: 20.16 Million KWh<br>**Impact**: Creating energy savings and translating it into a business model are key for this Project. Need to ensure the model is validated and analytics, marketing, and financing can incentivize customers with the highest potential for energy savings; otherwise this may demonstrate that hypothesis 4a may not hold true.<br>**Solutions/Strategies if Results Below Expectations:** In-line with root-cause analysis, actions may include assessing and analyzing number of participants, average ECM project and projected savings, engagement success, and model validation. In addition, review ECM projects for projected versus actual outcomes and re-validate savings potential. Depending on which area is identified as a limitation, coordinate with partners on best solution. |

## Section 2: Project Structure and Governance

### A) Project Team

The Project is a partnership between Con Edison and Retroficiency. Each partner provides key skillsets and is responsible for certain Project functions in order to ensure a successful demonstration. Con Edison will maintain overall responsibility for Project execution. Retroficiency is a key contributing partner. The high-level Project team makeup and alignment are depicted in Figure 2-A-1.

**Figure 2-A-1: Team Leadership/Organization**




Con Edison will facilitate interactions with its existing commercial customers and market partners and apply skillsets and expertise of its team (Table 2-A-1), aligned with its roles and knowledgebase as a utility, to the Project. The Con Edison Project manager has overall responsibility for the success of the Project and will plan, coordinate, and manage activities for the scope and duration of the Project.

**Table 2-A-1: Utility and Partner Skillsets**

| Con Edison Team Key Skillsets | Retroficiency Team Key Skillsets |
|---|---|
| • Project Management<br>• Marketing<br>• Commercial Account and Program Management/Sales<br>• Information Resources (IR)<br>• Energy Efficiency<br>• Distributed Resources<br>• Market Partner Engagement<br>• Customer Outreach and Community Engagement<br>• Finance and Legal | • Project Management<br>• Data Analytics<br>• Marketing<br>• Customer Engagement<br>• Energy Engineering<br>• Sales<br>• Software Development<br>• Product Strategy |

Retroficiency is a specialist in using data analytics to rapidly develop virtual audits that help utilities target and engage their commercial customers around energy efficiency and demand management. VEA audits let customers see how a specific building is consuming energy under current operating conditions and how to make it more efficient. Retroficiency will provide its unique skillsets to the Project focused on its analytics capability, matching its product to the market, and ability to engage customers. Retroficiency's team lead has overall responsibility to coordinate and align efforts with this implementation plan.

## B) Project Staffing

Con Edison has created a Project team within its Distributed Resource Integration department dedicated to identifying, developing, and implementing new projects related to REV. From this team, a Project manager has been identified to lead the Project. In addition, the Project manager has Con Edison's resources and skillsets (Table 2-A-1) identified and is authorized to bring in additional Con Edison resources (e.g., marketing, information resources, and legal) to augment and support Project activities and objectives. Con Edison's team members are listed in Table 2-B-1 along with their functional areas and current duty titles.

**Table 2-B-1: Con Edison's Project Implementation Team**

| Team Member | Title | Functional Area |
|---|---|---|
| Tim Lezgus | Project Manager, Building Efficiency Marketplace | Project Management |
| Jamie Brennan | Director, Demonstration Projects | Project Governance |
| Chris Raup | Program Manager, Demonstration Projects | Project Oversight (Demonstration Projects) |
| Andy Bishun | Manager, Distributed Resources Integration and Project Management Office | Project Controls |

Retroficiency is a committed partner for the Project. The core capabilities of Retroficiency are embedded in the skillsets and functions it will provide. Retroficiency's Vice President of Operations will be the team leader, providing management and integration of Retroficiency's activities into the overall Project scope and plan. In addition, Retroficiency's key leadership will be active in supporting success of this Project. Table 2-B-2 lists key individuals who, along with their respective teams, will support this Project.

**Table 2-B-2: Retroficiency's Project Implementation Team**

| Team Member | Title | Functional Area |
|---|---|---|
| Shobin Uralil | Vice President, Operations | Project Management |
| Mike Kaplan | Vice President, Marketing | Marketing and Customer Engagement |
| Bryan Long | Chief Technology Officer | Software Platform Architect |
| Paul Gagne | Vice President, Software | Software Development |
| Chris Muth | Vice President, Products | Product Strategy |
| Hugh Gaasch | Vice President, Energy Efficiency | Energy Engineering, including Virtual Energy Assessments |
| To be hired | Engagement Specialist | Marketing and Customer Engagement |

## C) Roles and Responsibilities

The Project implementation team has developed a work plan (Table 3-A-1) with specific tasks and activities aligned to the Project's timeline and overall success. The breakdown of roles and responsibilities is provided in this section.

### Phase 0 – Demonstration Planning (Table 2-C-1)

The initial stages of the Project will be focused on configuring the software platform for a Phase 1 launch of the customer-facing and Con Edison-facing portals. In parallel with the software-related efforts, initial VEA audits will be performed, so the portal is populated with up-to-date analytics at launch.

**Table 2-C-1: Phase 0 – Roles and Responsibilities**

| Phase 0 Activities | Con Edison | Retroficiency |
|---|---|---|
| **Portal Configuration** | | |
| **Retroficiency** will have overall responsibility for the customer portal development. | | X |
| **Con Edison** will provide support. | X | |
| **Data Integration** | | |
| **Retroficiency** will lead data integration efforts by implementing mutually agreeable data formats, data transfer protocols, and appropriate data integrations automatically. | | X |
| **Con Edison** will coordinate with Retroficiency, providing standards for data interoperability and security. | X | |
| **Building Analysis and Reporting** | | |
| **Retroficiency** will have overall responsibility for conducting VEAs. | | X |
| **Con Edison** will support this activity. | | |

### Phase 1 – Initial Launch and Testing (Table 2-C-2)

Leading up to and upon launch of the customer portal, Con Edison will focus on educating external stakeholders, driving awareness/adoption of the customer portal, and securing early adopters that can supply the Project with "early wins," and be touted to further increase awareness and adoption. Phase 1 will focus on driving customer awareness, engagement, and supporting Project implementation with dedicated consulting resources working closely with a select group of customers and market partners. The Project team will also engage market partners to participate in project development and the efficiency project portal. Con Edison and Retroficiency will continuously revise and streamline customer and market partner interactions to enable a robust marketplace in Phase 2.

**Table 2-C-2: Phases 1 and 2 – Roles and Responsibilities**

| Phase 1 and 2 Activities | Con Edison | Retroficiency |
|---|---|---|
| **Project Management** | | |
| **Con Edison** will have overall management responsibility and will lead quarterly reviews, reporting, and phase-end reviews. | X | |
| **Retroficiency** will lead weekly and ad hoc progress meetings to keep appropriate stakeholders apprised of progress and potential roadblocks. | | X |
| **Retroficiency** will provide data and information inputs for quarterly reports to Staff. | | X |
| **Customer Engagement** | | |
| **Retroficiency** will hire an engagement specialist to provide enhanced outreach, consulting services to initial customers, and alignment of market partners with projects and the portal. | | X |
| **Con Edison** will leverage its commercial account teams to conduct a targeted customer outreach campaign using various marketing strategies. | X | |
| **Market Partner Engagement** | | |
| **Retroficiency's** engagement specialist will provide enhanced outreach, consulting services to initial customers, and alignment of market partners with projects and the portal. | | X |
| **Con Edison** will contact/refer to Retroficiency's engagement specialist a select group of market partners to inform them of the opportunity, gain feedback on monetization strategies and potential tools to facilitate transactions, and ultimately secure participation. | X | |
| **Portal Configuration** | | |
| **Retroficiency** will have overall responsibility for continuous portal improvement and upgrades. | | X |
| **Con Edison** will support this activity. | X | |
| **Monetization Testing** | | |
| **Con Edison** will lead the monetization testing strategy development and execution for engaging customers and determining optimal methods for determining energy efficiency values (see Table 1-B-3). | X | |
| **Retroficiency** will coordinate efforts to establish and evaluate various opportunities. | | X |

| Phase 1 and 2 Activities | Con Edison | Retroficiency |
|---|---|---|
| **Building Analysis and Reporting** | | |
| **Retroficiency** will have overall responsibility for conducting VEAs, updating the database, and conducting virtual measurement and verification. | | X |
| **Con Edison** will support this activity. | X | |

### Phase 2 – Market Launch (Table 2-C-2)

In Phase 2, Con Edison and Retroficiency will expand and iterate on the same activities in Phase 1, providing Project connection tools and resources that will facilitate the marketplace for customers and contractors to interact and see shared value in a more streamlined and scalable way. The same basic approach of Phase 1 will continue into Phase 2, although modified as necessary to reflect what is needed in Phase 2 and the lessons learned in Phase 1. While Phase 1 will focus on launching and testing new customer-facing tools and services, Phase 2 will more prominently feature the software and services that streamline Project connections between customers and the market partners. The population of participating customers will also expand in Phase 2 up to 2,100 commercial customers.

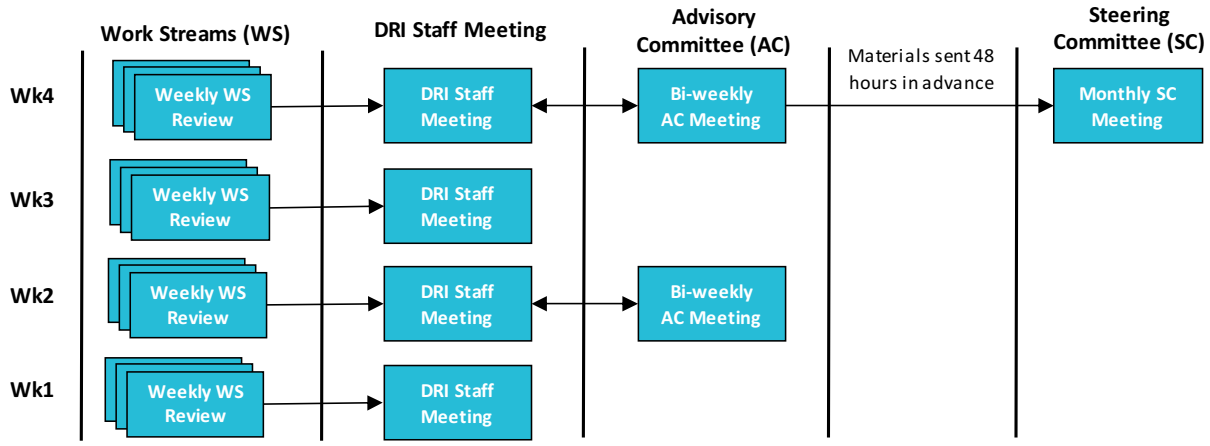
## D) Governance

Con Edison will have overall responsibility for execution of the Project. The Company has put in place a governance structure detailed in the section below. The governance structure encompasses the Project management team detailed in Sections 2A and 2B and pictured in Figure 2-A-1. The management team will have day-to-day execution responsibility for managing the Project, coordinating tasks and activities, and conducting overall Project management. The team will continuously and frequently coordinate activities throughout the implementation execution. Project team meetings will be held in-person, via conference calls, WebEx, or other communication means. The Project team will be responsible for coordinating quarterly reporting and advocating within each company's governance structure.

### Utility Governance Structure

The Con Edison governance structure will consist of its department with REV initiative oversight, a cross-functional advisory committee, and a senior leadership steering committee. The governance structure will enable senior leadership to be fully engaged, have appropriate internal stakeholders engaged, and ensure outcomes and Project execution are tracked. Con Edison will manage the process as depicted in Figure 2-C-1.

**Figure 2-C-1: Con Edison's REV Demonstration Project Governance Process**



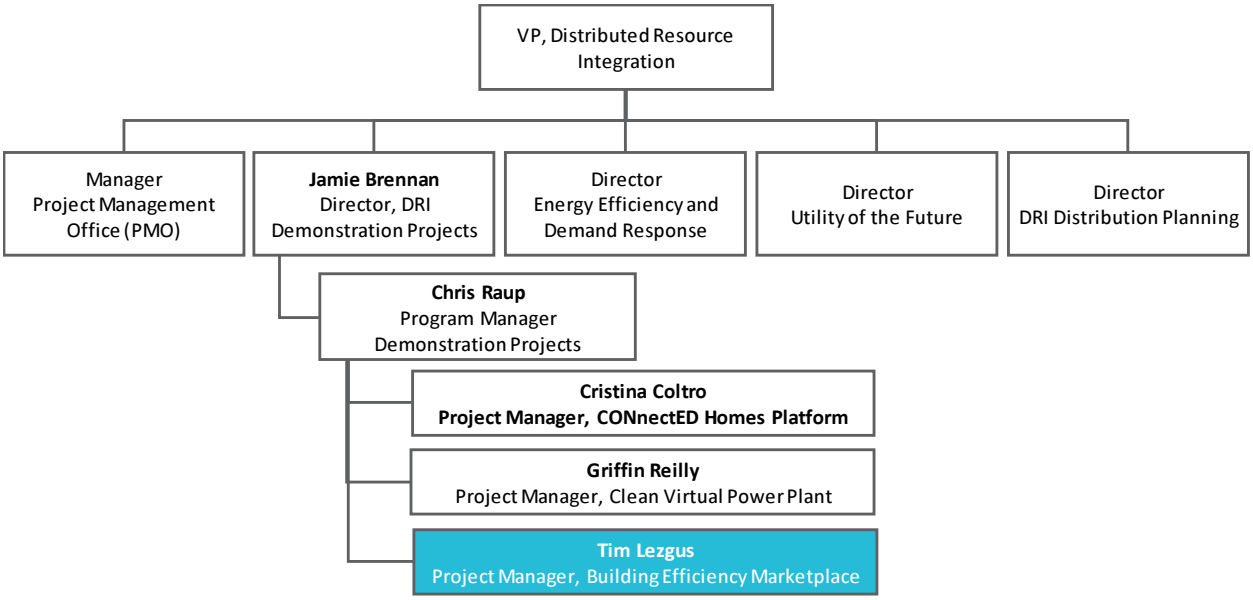

| | |
|---|---|
| Work Streams | **Purpose:** To discuss status and document issues and actions of individual work streams<br>• PMO leads will review status reports with WS leads through collaboration or face-to-face as needed<br>• Issues/actions requiring escalation will be identified and documented<br>• Outcomes will inform DRI Staff of progress/issues |
| DRI Staff Meeting | **Purpose:** To consolidate and formalize WS input, prepare for presentation to AC and SC, and debrief AC/SC meetings<br>• Led by VP (DRI) and includes PMO department manager and WS leads, as invited<br>• Serves as "glue" that connects the WS with AC and SC |
| Advisory Committee | **Purpose:** To review consolidated list of WS issues, provide guidance/resources as needed, and prepare material for SC review<br>• Facilitated and led by VP (DRI), includes all AC members<br>• Agenda will include status updates from each WS, discussion on issues for resolution, and review of SC presentation materials (as appropriate) |
| Steering Committee | **Purpose:** To provide Project status and present issues and deliverables for SC decision/approval<br>• Facilitated and led by VP (DRI)<br>• Strategic/policy decisions will be made<br>• Meeting materials will include completed analysis, implications of analysis, specific decision/approval request, sign-off by all reviewers on request, and documentation of dissenting opinions (as applicable) |

The Project manager is under the Director, Demonstration Projects, who reports to Con Edison's Vice President for Distributed Resource Integration (DRI). DRI (Figure 2-C-2), created in May 2015, is a proactive response to the evolving energy distribution markets in New York. This new department is deemed critical by Con Edison to address customers' needs, move forward on REV, and adapt to the changing energy environment. The formation of DRI will facilitate the integration of infrastructure planning, innovative technical options, energy efficiency, and creative solutions to ensure continued reliability while serving customers in the future. All the elements of Con Edison's REV initiatives report to the VP of DRI—Utility of the Future, Energy Efficiency and Demand Management, Resource Planning, Distributed Generation, and Demonstration Project teams.

The VP of DRI will hold weekly staff meetings to review the progress of each REV-related work stream in order to provide oversight and resolve critical issues as they arise. All REV-related

initiatives, including each demonstration project, will provide weekly updates that highlight progress made and escalate issues that require support from the organization, whether it is resourcing, changes in scope, or externalities impacting the Project.

**Figure 2-C-2:**
**Con Edison's Distributed Resource Integration and Planning Department**




The Advisory Committee is comprised of leaders from Con Edison functional areas—Information Resources, Corporate Accounting, Corporate Strategy, Corporate Communications, Engineering and Planning, Energy Policy and Regulatory Affairs, Government Relations, and Customer Operations. These areas will be impacted by, or will need to provide resources to support, REV initiatives. This committee will provide guidance and input on strategic priorities, policy, and decisions; review REV Project schedules and deliverables to ensure alignment of business unit priorities; secure resources to support REV work streams; resolve cross-functional issues with peers; serve as a champion for REV priorities within the respective business unit; and make decisions as delegated by the Steering Committee.

The Steering Committee consists of key members from Con Edison's senior leadership team. The role of the Steering Committee is to set strategic priorities for Con Edison with respect to REV, make critical policy and strategic decisions, set the standard for REV-related deliverables, and approve overall resourcing of the effort. Through the Steering Committee, Con Edison's senior leaders will have full visibility on REV demonstration projects.

**Partner Governance Structure**

Retroficiency, as a partner to Con Edison, will enter into a contractual arrangement to provide services to execute the Project implementation. The VP, Operations for Retroficiency is the Project team lead for Retroficiency. The governance structure for the Project aligns with the existing Retroficiency organization, as this Project will follow their internal product management oversight model.

# Section 3: Work Plan and Budget

## A) Project Plan

Con Edison in partnership with Retroficiency will implement the Project as defined in the work plan and budget (Table 3-A-1). The plan details the phases, tasks, associated activities, and first level of sub-activities under each activity along with an overall budget estimate. Phase 0 will begin upon project implementation plan approval by the DPS and be subject to contract completion between Con Edison and Retroficiency. The work plan and budget are part of this living document. Start and end dates, budget estimates for each task, and activities have the potential to shift forward or backward in the schedule due to various inputs and risks, which include, but are not limited to, customer feedback, customer participation, and software development. The key milestones for this Project align with the completion of each phase, meeting the checkpoints within the stage, and demonstrating phase success. Milestones are noted in red in Table 3-A-1 and defined within the table. Con Edison, together with Retroficiency, will monitor progress and milestones through various checkpoints, as discussed in Section 1, Demonstration Design and report to the Commission quarterly. Reporting will conform with the DPS direction and with Section 4-A, Reporting Expectations of this document.

Budget estimates provided in Table 3-A-1 represent calculated estimates over the course of the Project and do not account for inflation. Changing budget estimates will be reflected in the quarterly reports to the Commission. Retroficiency budget estimates are trade secret, commercial confidential information, which will be provided to the DPS confidentially.

## Table 3-A-1: Work Plan

**Demonstration Project - Building Efficiency Marketplace**

| Activity No. | Activity Description | Lead | 2015 | 2016 | | | | 2017 | | | | 2018 | | | | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 |
| 1.0 | **Phase 0 - Demonstration Planning** | | | | | | | | | | | | | | | |
| 1.1 | **Project Management** | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 1.1.1 | Marketing Planning | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 1.1.2 | Monetization Planning | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 1.1.3 | Engagement Specialist Onboarding | Retroficiency | | | | | | | | | | | | | | |
| 1.2 | **Customer Portal Configuration** | Retroficiency | | | | | | | | | | | | | | |
| 1.2.1 | Software Development (Configuration/Testing/Launch) | Retroficiency | | | | | | | | | | | | | | |
| 1.2.1.1 | Requirements Gathering | Retroficiency | | | | | | | | | | | | | | |
| 1.2.1.2 | Design Spec / Development | Retroficiency | | | | | | | | | | | | | | |
| 1.2.1.3 | Software Confirguration/Testing | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 1.2.1.4 | Software/Launch | Retroficiency | | | | | | | | | | | | | | |
| 1.2.2 | Customer Validation and Access | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 1.2.3 | Internal Stakeholder Training | Retroficiency | | | | | | | | | | | | | | |
| 1.3 | **Data Integration** | Retroficiency | | | | | | | | | | | | | | |
| 1.3.1 | Define Data Integration Requirements | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 1.3.2 | Execute Systems/Data Integration | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 1.3.3 | Initial Data Transfer to Retroficiency | Con Ed | | | | | | | | | | | | | | |
| 1.4 | **Building Analysis and Reporting** | Retroficiency | | | | | | | | | | | | | | |
| 1.4.1 | Conduct/Update Virtual Energy Assessments (VEA) | Retroficiency | | | | | | | | | | | | | | |
| 1.4.2 | Post VEA results | Retroficiency | | | | | | | | | | | | | | |
| 2.0 | **Phase 1 - Demonstration Implementation** | | | | | | | | | | | | | | | |
| 2.1 | **Project Management** | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 2.2 | **Customer and Market Engagement** | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 2.2.1 | Execute Marketing Plan/Customer Awareness Campaigns | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 2.2.2 | Customer Engagement Specialist | Retroficiency | | | | | | | | | | | | | | |
| 2.2.3 | Monetization Testing | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 2.3 | **Customer Portal Configuration** | Retroficiency | | | | | | | | | | | | | | |
| 2.3.1 | Continuous gathering of requirements for product enhancements | Retroficiency | | | | | | | | | | | | | | |
| 2.3.2 | Continuous release of updates (every 2 weeks) | Retroficiency | | | | | | | | | | | | | | |
| 2.4 | **Building Analysis and Reporting** | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 2.4.1 | Ongoing Data Transfers to Retroficiency | Con Ed | | | | | | | | | | | | | | |
| 2.4.2 | Ongoing Data Analysis (VEA) | Retroficiency | | | | | | | | | | | | | | |
| 2.4.3 | Ongoing Data Analysis (M&V) | Retroficiency | | | | | | | | | | | | | | |
| 2.5 | **Efficiency Project Portal Configurati** | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 2.5.1 | Software Development (Configuration/Testing/Launch) | Retroficiency | | | | | | | | | | | | | | |
| 2.5.2 | Market Partner Validation and Access | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 2.5.3 | Internal Stakeholder Training | Retroficiency | | | | | | | | | | | | | | |
| 3.0 | **Market Launch** | | | | | | | | | | | | | | | |
| 3.1 | **Project Management** | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 3.2 | **Customer and Market Engagement** | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 3.2.1 | Execute Marketing Plan/Customer Awareness Campaigns | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 2.2.3 | Monetization Testing | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 2.3 | **Customer Portal Configuration** | Retroficiency | | | | | | | | | | | | | | |
| 2.3.1 | Continuous gathering of requirements for product enhancements | Retroficiency | | | | | | | | | | | | | | |
| 2.3.2 | Continuous release of updates (every 2 weeks) | Retroficiency | | | | | | | | | | | | | | |
| 2.4 | **Building Analysis and Reporting** | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 2.4.1 | Ongoing Data Transfers to Retroficiency | Con Ed | | | | | | | | | | | | | | |
| 2.4.2 | Ongoing Data Analysis (VEA) | Retroficiency | | | | | | | | | | | | | | |
| 2.4.3 | Ongoing Data Analysis (M&V) | Retroficiency | | | | | | | | | | | | | | |
| 2.5 | **Efficiency Project Portal Configurati** | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 2.5.1 | Software Development (Configuration/Testing/Launch) | Retroficiency | | | | | | | | | | | | | | |
| 2.5.2 | Market Partner Validation and Access | Con Ed & Retroficiency | | | | | | | | | | | | | | |
| 2.5.3 | Internal Stakeholder Training | Retroficiency | | | | | | | | | | | | | | |

**MILESTONES**

Phase 1 - Portal Complete;
VEA Loaded into Portal
Phase 2 - 3% Conversion Rate over 1 year period
~100 High Saving Potential Customers Engaged
Software Validated to Manage Increased Customers
Phase 3 - 3% Conversion Rate over 1 year period
Customer Pool Increase to 1,400 in 1st year; 2,100 in 2nd ye
Software Validated to Manage Increased Customers

## B) Project Budget

Con Edison's Project manager will be responsible for managing and tracking program budget cost. The quarterly report to the Commission will provide budget updates and align with the work plan and budget in section 3A. Retroficiency will provide updates to the Project manager for inclusion in the quarterly report and program management.

Revenue streams for Project implementation will be from the various monetization strategies listed in Table 1-C-1. These include, but will not be limited to:

- Market partner advertising on customer portal
- Providing market partner customer leads
- Providing market partner portal access
- Consulting fees
- Financing lead fees

Revenue streams will likely first become available in late 2016 with the initiation of Phase 1 – Demonstration Implementation. Revenue streams are estimated to increase in Phase 2, beginning in 2017 and again in 2018, with the expansion of the commercial customer test population from the initial 400 to 2,100 over two years. Revenue projections are informed by contact conversion rates and potential KWh savings.

Con Edison expects its costs for this Project to be recovered through the Monthly Adjustment Clause (MAC), (pending PSC approval). Revenues from third-party service providers, lenders, and customers that participate in the Project will be credited to ratepayers.

**Table 3-B-1: Building Efficiency Marketplace Budget**

| | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|
| Expected Cash-Out: | $1.878M | $2.317M | $1.716M | $2.068M |
| Expected Cash-In: | $0 | $0.176M | $1.632M | $3.276M |

# Section 4: Reporting Structure

## A) Reporting Expectations

Quarterly reports will be provided to the Commission for the duration of the Project. Reporting will conclude upon either Project conclusion or inclusion of Project costs in a rate order. Con Edison will be responsible for consolidating all inputs for submission to the Commission.

The quarterly report will provide the Commission an update on implementation progress. The report will highlight progress according to the work plan and budget (see Table 3-A-1), detailing deviations and noting task and activity progress. In addition, the report will capture key Project data: revenue requirements, in-service dates, incremental costs incurred, operational savings, tax benefits as well as other Project benefits that are observed. The quarterly report template will be as follows:

**Figure 4-A-1: Quarterly Report Outline**

1.0 Executive Summary
2.0 Demonstration Highlights
- 2.1 Since Previous Quarter
  - 2.1.1 Major Tasks Completion
  - 2.1.2 Activities Overview
  - 2.1.3 Sub-Activities Overview
- 2.2 Next Quarter Forecast
  - 2.2.1 Checkpoint/Milestone Progress
  - 2.2.2 Planned Activities
  - 2.2.3 Expected Changes
- 2.3 Issues

3.0 Work Plan and Budget Review
- 3.1 Phase Review
  - 3.1.1 Activity 1.0
    - Progress Assessment
    - Issues
    - 3.1.1.1 Sub-Activity 1.2
      - Progress Assessment
      - Issues
    - 3.1.1.2 Sub-Activity 1.3
- 3.2 Work Plan

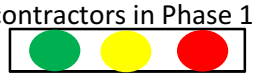
Table 3.2.A – Updated Work Plan
Table 3.2.B – Updated Budget

4.0 Conclusion
- 4.1 Lessons Learned
- 4.2 Recommendations

The quarterly report will focus on the phase(s) occurring within the previous quarter or scheduled to occur within the next two quarters. This will ensure the report is focused on the current progress, while providing the Commission insight into the near future. The governance structure and Project management team will maintain oversight over all phase progress and include in the Section 2.3, Issues a discussion of any impacts on the Project execution beyond the report's timeline.

Checkpoint, milestone, and activity progress will provide detailed status information of implementation progress and highlight issues, such as incremental cost or shifts in the timeline. A stoplight chart will be used to detail progress for activities in the quarterly reports. Con Edison will provide narrative information to support the progress report.

**Figure 4-A-2: Checkpoint/Milestone/Activity Progress Example**

**Checkpoint:** Participating market partners engaged in ECM
**Target**: Select group of XX contractors in Phase 1
**Progress Status:** 

**Budget Impact**: (Yes/On-Target/No Impact )
**Incremental Cost Incurred:** $XXXX incurred due to expanded marketing campaign to increase partner awareness and engagement

**Previous Quarter Updates:**

**Future Quarter Impacts:**

The Project management team will maintain close contact with DPS Staff to review the quarterly report and respond to follow-up questions.