

REV Demonstration Project: Building Efficiency Marketplace

2017 4Q Quarterly Progress Report

Dated: January 29, 2018

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1.0 EXECUTIVE SUMMARY

Consolidated Edison Company of New York, Inc. ("Con Edison" or the "Company") submits this quarterly report on the progress of the Building Efficiency Marketplace REV demonstration project (the "Project") it is implementing as part of the Reforming the Energy Vision ("REV") proceeding, as required by the *Order Adopting Regulatory Policy Framework and Implementation Plan*, issued by the New York State Public Service Commission ("Commission") on February 26, 2015.

1.1 PROGRAM ACHIEVEMENTS

On July 1, 2015, Con Edison submitted the Project for approval by Department of Public Service Staff ("DPS Staff"); on November 10, 2015, DPS Staff approved the Project. Con Edison filed an implementation plan for the Project with the Commission on November 20, 2015. In Q4 2017, the Company continued the execution of the Project, focusing on customer engagement and documenting customer feedback.

1.2 CYBERSECURITY AND PERSONALLY-IDENTIFIABLE INFORMATION PROTECTION

Consistent with corporate instructions and Commission policy related to cybersecurity and the protection of personally-identifiable information ("PII"), each partner agreement executed for the implementation of the Project includes specific protections related to cybersecurity and PII. Assurance of this protection is critical in encouraging customers to sign up with new and innovative services offered by utilities.

1.3 ACCOUNTING PROCEDURE ESTABLISHED

On February 16, 2016, in Case 15-E-0229, Con Edison filed an accounting procedure for the accounting and recovery of all REV demonstration project costs. This accounting procedure establishes a standardized framework that will govern how the Company categorizes and allocates the costs of the REV demonstration projects, and will facilitate analyzing each project to determine the overall financial benefits of the program to customers.

1.4 COSTS, BENEFITS, AND OPERATIONAL SAVINGS

Budget information for all of the Company's REV demonstration projects is being filed confidentially with the Commission, concurrently with the filing of this document. All

costs filed are incremental costs needed to implement the projects. To date, no tax credits or grants have been available to reduce the net costs of the projects, but Con Edison will take advantage of such offsetting benefits when they are available. There are no operational savings to report at this time.

1.5 BUILDING EFFICIENCY MARKETPLACE

The Project 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. The Project has developed a web-based portal to engage customers with details about how their buildings consume energy today, their potential energy savings and demand reduction opportunities, as well as the Energy Insights Marketplace to streamline connections between customers and energy efficiency market partners. Virtual, automated savings measurement and verification will be provided to customers, giving them visibility into achieved savings and maximizing the likelihood that implemented projects continue to perform over time. Con Edison is implementing the Project with its partner Retroficiency, a leading provider of data analytics and software solutions to utilities and commercial customers. As of January 1, 2017, Retroficiency has merged with and into its sole owner, Ecova, Inc.

In Q4 2017, the Project team continued implementation, promoting the Energy Insights Portal ("Portal") and Energy Insights Marketplace to a targeted group of large commercial customers. The Portal allows customers to identify specific measure level recommendations and develop potential projects via the Action Plans page. After developing a project in the Portal, customers will be able to submit their project scopes to Market Partners to elicit project proposals. The Project assumes this level of connection between customers and Market Partners will drive new energy efficiency projects. The Project team will be gathering data throughout the life of the Project to inform this assumption.

2.0 BUILDING EFFICIENCY MARKETPLACE – QUARTERLY PROGRESS

2.1 DEMONSTRATION HIGHLIGHTS

2.1.1 Since Previous Quarter - Major Task Completion

- Customer Engagement
 - Continued high-touch outreach to customers
 - Worked with customers to populate Action Plans
 - Gathered insight, feedback and perspective from customers
- The Energy Insights Marketplace
 - The Project team identified potential energy efficiency projects for customers
 - Conducted multiple site visits with customers and Market Partners
 - Customers received proposals from potential partners
- Phase 2 Marketing
 - Expanded customer data feed to Ecova
 - Analyzed expanded customer data for assessment potential
 - o Grouped customer accounts to Parent Accounts
 - Mined data resources for customer contact information.

2.1.2 Activities Overview

During Q4 2017, the Project team was able to focus on specific customer projects. The Project team continues to use energy data analytics to identify opportunities, develop project scopes, and put the tools in the customers' hands to receive project proposals from Market Partners. After managing the bid process, the Project team is able to leverage the Energy Insights Marketplace to present relevant project documentation to the customers, allowing for side by side comparisons.

2.1.3 Key Metrics

Customer and Market Partner Engagement:

This metric tracks how many Action Plans have been populated in the Energy Insights Portal. The checkpoint goal for this stage of the Project is six Action Plans and there are currently 15. Translating analytical services into energy efficiency projects is critical to demonstrating the value in the marketplace and overall customer interest/affordability in energy efficiency.

Projects Contracted by Utility Consulting Service:

This metric tracks how many projects have been contracted for "Utility Consulting Service." The Project team has not begun to test contracting with customers for Utility Consulting Service. As we continue to meet with customers and engage them with opportunities for energy efficiency, we are collecting qualitative data on the customer experience which will inform a strategy for Utility Consulting Services. The Project team will revisit this Metric in Phase 2, year 1 midpoint.

2.1.4 Next Quarter Forecast

In Q1 2018, the Project team will continue to work with customers to develop projects in the Energy Insights Marketplace. The Project team will track insights gathered through the Energy Insights Marketplace in order to inform new ways of interacting with our customers in the Demonstration Project.

2.1.5 Checkpoints/Milestone Progress

| Checkpoint/Milestone | Timing* | Status |
|--|---|--------|
| Participating Market Partners Engaged in Energy Conservation Measures | Phase 2 Initial/Midpoint / End | |
| Customer and Market Partner Engagement | Phase 1 Midpoint / End Phase 2 Midpoint / End | •00 |
| Projects Contracted by Utility Consulting Services | Phase 1 Midpoint / End Phase 2: Midpoint Year 1 /End Year 1 | 000 |
| Revenue Realization | Phase 1 End, Phase 2 End of Year 1 | 000 |
| Project Impact | Phase 1 End, Phase 2 End of Year 1 | 000 |

^{*}Detailed descriptions of the Phases can be found in the Appendices.

Con Schedule Delayed w/out Major Delayed or Stopped – Project Goals Impacted

2.1.6 Planned Activities

2.1.6.1 Participating Market Partners Engaged in Energy Conservation Measures

Status: Green

Expected Target by Phase 2 Start: 30 market partners engaged

Actual by Phase 2 Start: 65 market partners engaged

Solutions/strategies in case of results below expectations: In line with rootcause analysis, actions may include reassessing target, increasing marketing and outreach efforts, or adjusting monetization strategies to encourage market partner participation.

2.1.6.2 Customer and Market Partner Engagement

Status: Green

Expected Target by Phase 1 Midpoint: 6 Customers

Actual by Phase 1 Midpoint: 9 Customers

Solutions/strategies in case of results below expectations: In-line with rootcause 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.

2.1.6.3 Projects Contracted by Utility Consulting Services

Status: Yellow

Expected Target by Phase 1 Midpoint: 5 percent under contract

Actual by Phase 1 Midpoint: None so far. This will be revisited Phase 2, Year 1

Midpoint

Solutions/strategies in case of results below expectations: In-line with rootcause analysis, actions may include reassessing target, increased consumer and market partners' outreach to drive portal awareness along with surveying customers to inform them of other marketing and customer engagement options.

2.1.6.4 Revenue Realization

Status: Yellow

Expected Target by Phase 1 End: \$177,000

Actual by Phase 1 End: None so far.

Solutions/strategies in case of 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, reassessing target, and engagement success. Depending on which area is identified as a limitation, coordinate with partners on best solution.

2.1.6.5 Project Impact

Status: Yellow

Expected Target by 2018 End: 6.45 Million KWh

Actual by 2018 Midpoint: N/A

Solutions/strategies in case of 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, reassessing target, 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.

2.2 CHANGES TO THE PROJECT DESIGN

Changes have been made to the Checkpoints and Milestones. The Project team has developed relevant Project Impact targets as a measure of success for 2018. This metric will allow for relevant evaluation of the Project as a key potential business development tool.

2.3 WORK PLAN & BUDGET REVIEW

2.3.1 Phase Review

2.3.1.1 Phase Progress

The Project team has concluded work in Phase 0 (Demonstration Planning). Phase 0 consisted of Project Management, Configuration of Customer Portal, Marketing Strategy & Planning, Data Integration, and Building Analysis. Phase 1 (Demonstration Implementation) tasks concluded in Q3 2017. Phase 1 tasks included Project Management, Customer and Market Engagement, Customer Portal Configuration, Building Analysis and Reporting, and Marketplace Portal Configuration. Phase 2 (Market Launch) tasks began in Q3 2017.

2.3.2 Work Plan

| Demonstrat | ion Project - Building Efficiency Marketplace | | | | | | | | | | | | | | | |
|------------|---|-------------------------|---|-----------|--|--|---------|--|------|--|----|----------|----|------|----|-------------|
| Activity | | | | 2015 2016 | | | | | 2017 | | | | | 2018 | | |
| No. | Activity Description | Status | Lead | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| 1.0 | Phase 0 - Demonstration Planning | | | | | | | | | | | | | | | |
| 1.1 | Project Management | COMPLETE | Con Edison & Retroficiency | | | | | | | | | | | | | |
| 1.1.1 | Complete Implementation Plan | COMPLETE | Con Edison | | | | | | | | | | | | | |
| 1.1.2 | DPS Review | COMPLETE | DPS | | | | | | | | | | | | | |
| 1.1.3 | Complete MSA with partner | COMPLETE | Con Edison & Retroficiency | | | | | | | | | | | | | |
| 1.1.4 | Complete SOW with partner | COMPLETE | Con Edison & Retroficiency | | | | | | | | | | | | | |
| 1.1.5 | Marketing Planning | COMPLETE | Con Edison & Retroficiency | | | | | | | | | | | | | |
| 1.1.6 | Monetization Planning | COMPLETE | Con Edison & Retroficiency | | | | | | | | | | | | | |
| 1.1.7 | Engagement Specialist Onboarding | COMPLETE | Retroficiency | | | | | | | | | | | | | |
| 1.2 | Customer Portal Configuration | COMPLETE | Con Edison & Retroficiency | | | | | | | | | | | | | |
| 1.2.1 | Software Development (Configuration/Testing/Launch) | COMPLETE | Retroficiency | | | | | | | | | | | | | |
| 1.2.1.1 | Requirements Gathering | COMPLETE | Retroficiency | | | | | | | | | | | | | |
| 1.2.1.2 | Design Spec / Development | COMPLETE | Retroficiency | | | | | | | | | | | | | |
| 1.2.1.3 | Software Confirguration/Testing | COMPLETE | Retroficiency | | | | | | | | | | | | | |
| 1.2.1.4 | Software/Launch | COMPLETE | Con Edison & Retroficiency | | | | | | | | | | | | | |
| 1.2.2 | Customer Validation and Access | COMPLETE | Con Edison & Retroficiency | | | | | | | | | | | | | |
| 1.2.3 | Internal Stakeholder Training | COMPLETE | Retroficiency | | | | | | | | | | | | | |
| 1.3 | Data Integration | COMPLETE | Con Edison & Retroficiency | | | | | | | | | | | | | |
| 1.3.1 | Define Data Integration Requirements Execute Systems/Data Integration | COMPLETE | Con Edison & Retroficiency Con Edison & Retroficiency | | | | | | - | | | | | _ | | |
| 1.3.3 | | COMPLETE | Con Edison | - | | | | | - | | | | | 1 | | |
| 1.4 | Initial Data Transfer to Retroficiency Building Analysis and Reporting | COMPLETE | Retroficiency | - | | | | | - | | | | | 1 | | |
| | | | | _ | | - | | | | | | | | - | | |
| 1.4.1 | Conduct/Update Virtual Energy Assessments (VEA) Post VEA results | COMPLETE | Retroficiency Retroficiency | | | - | | | | | | | | - | | |
| 2.0 | Phase 1 - Demonstration Implementation | COMPLETE | Retroficiency | | | | | | | | | | | - | | - |
| 2.1 | · | IN DROCDESS | Con Edison & Retroficiency | | | | | | | | | | | - | | - |
| 2.1 | Project Management | IN PROGRESS IN PROGRESS | Con Edison & Retroficiency | - | - | | | | | | | | | 1 | | - |
| 2.2.1 | Customer and Market Engagement Execute Marketing Plan/Customer Awareness Campaigns | IN PROGRESS | Con Edison & Retroficiency | - | | - | | | | | | | | 1 | | |
| 2.2.1 | | IN PROGRESS | | _ | | - | | | | | | | | | | |
| 2.2.2 | Customer Engagement Specialist | | Retroficiency | | | | | | | | | | | - | | |
| 2.2.3 | Monetization Testing Customer Portal Configuration | IN PROGRESS IN PROGRESS | Con Edison & Retroficiency Retroficiency | | | | | | | | | | | - | | - |
| 2.3.1 | • | IN PROGRESS | • | | | | | | | | | | | - | | - |
| | Continuous gathering of requirements for product enhancements | | Retroficiency | | | | | | | | | | | 1 | | |
| 2.3.2 | Continuous release of updates (every 2 weeks) | IN PROGRESS | Retroficiency | | _ | - | | | | _ | | | | _ | | - |
| | Building Analysis and Reporting | IN PROGRESS | Con Edison & Retroficiency | _ | - | - | | | | | | | | _ | | |
| 2.4.1 | Ongoing Data Transfers to Retroficiency | IN PROGRESS | Con Edison | _ | | | | | | | | | | - | | |
| 2.4.2 | Ongoing Data Analysis (VEA) | IN PROGRESS | Retroficiency | | | | | | | | | | | _ | | |
| 2.4.3 | Ongoing Data Analysis (M&V) | IN PROGRESS | Retroficiency | | | - | | | | | | | | 1 | | |
| 2.5.1 | Efficiency Project Portal Configuration (Marketplace) | IN PROGRESS | Con Edison & Retroficiency | \vdash | | | | | | | | <u> </u> | | 1 | | |
| 2.5.1 | Software Development (Configuration/Testing/Launch) Market Partner Validation and Access | IN PROGRESS IN PROGRESS | Retroficiency | <u> </u> | | | | | | | | - | | 1 | | |
| | | | Con Edison & Retroficiency | \vdash | _ | <u> </u> | | | | | | - | | 1 | | |
| 2.5.3 | Internal Stakeholder Training | IN PROGRESS | Retroticiency | \vdash | | - | | | | | | | | | | |
| 3.0 | Phase 2 - Market Launch | NOT CTARTES | Can Edison & Datusfici | \vdash | | - | - | | - | - | | | | | | |
| 3.1 | Project Management | | Con Edison & Retroficiency | - | | - | - | - | - | - | | | | | | |
| 3.2.1 | Customer and Market Engagement | | Con Edison & Retroficiency Con Edison & Retroficiency | - | | - | - | - | - | - | | | | | | |
| 2.2.3 | Execute Marketing Plan/Customer Awareness Campaigns | NOT STARTED | | — | | - | - | - | - | - | | | | | | |
| 2.2.3 | Monetization Testing | | | - | - | - | - | - | - | - | | | | | | |
| | Customer Portal Configuration | NOT STARTED | | \vdash | | - | - | - | - | - | | | | | | |
| 2.3.1 | Continuous gathering of requirements for product enhancements | NOT STARTED | | \vdash | | - | 1 | + | - | | | | | | | |
| 2.3.2 | Continuous release of updates (every 2 weeks) | NOT STARTED | | \vdash | | \vdash | + | + | | | | | | | | |
| | Building Analysis and Reporting | | Con Edison & Retroficiency | - | | | - | <u> </u> | - | <u> </u> | | | | | | |
| 2.4.1 | Ongoing Data Transfers to Retroficiency | NOT STARTED | | \vdash | | | - | 1 | - | <u> </u> | | | | | | |
| 2.4.2 | Ongoing Data Analysis (VEA) | NOT STARTED | | \vdash | | | - | | 1 | <u> </u> | | | | | | |
| 2.4.3 | Ongoing Data Analysis (M&V) | NOT STARTED | Retroticiency | | Ь | Ь—— | | L | L | Ь | | | | | | |



2.3.3 Updated Budget

Budget information is being filed confidentially with the Commission.

2.4 CONCLUSION

2.4.1 Recommendations

The Project team identified a potential energy efficiency project in a commercial building's tenant-leased space. As the tenant is currently occupying the space, in the middle of a long-term lease, some traditional barriers for energy efficiency often associated with tenant retrofits were not present. The Project team has been able to bring together the building owner and the tenant to scope the energy efficiency project and put through the Marketplace. Although this example does not constitute a large energy savings potential, the Project team was excited about reaching energy savings that may not be easily realized through traditional means. The Project team should continue to explore new ways of interacting with our customers to solve their challenges with reaching energy efficiency in their buildings.

2.5 INCLUDED APPENDICES

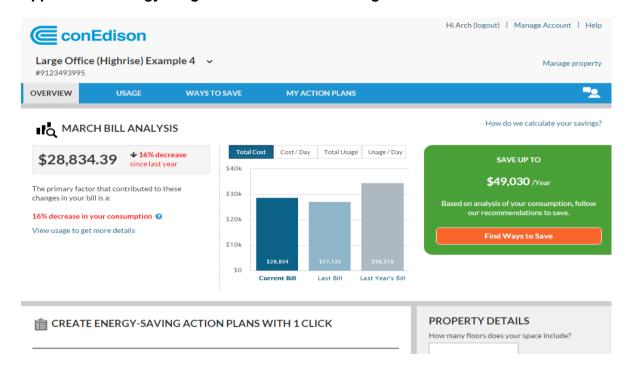
The following appendices are included at the end of this Quarterly Progress Report:

Appendix A: Energy Insights Customer Portal - Overview Page

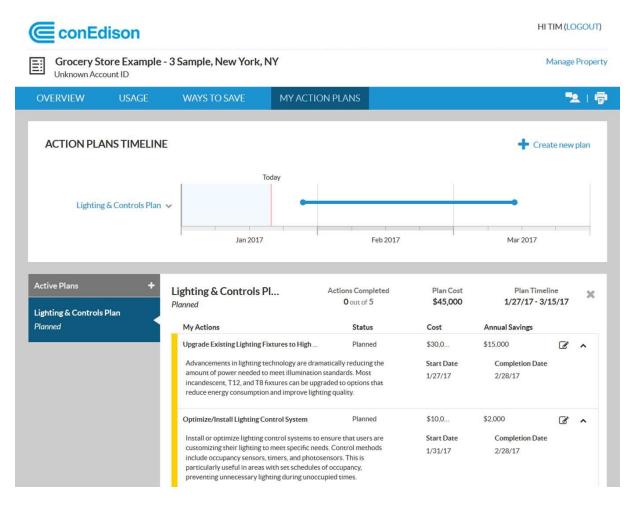
Appendix B: Energy Insights – Action Plan Page

Appendix C: Building Efficiency Marketplace Description of Phases

Appendix A: Energy Insights Portal – Overview Page



Appendix B: Energy Insights Portal - Action Plan Page



Appendix C: Building Efficiency Marketplace Description of Phases

| Phase | 0. Demonstration Planning | 1. Demonstration Implementation | 2. Market Launch |
|---|--|---|---|
| Milestone (Stage Gate to Next Phase) | Successful Platform Build Partner contracts signed DPS approval Launch Customer Facing Portal | Platform Utilization Successful data transfer Launch of Efficiency Project Portal (Marketplace) | Marketplace Participation Expansion of Test Population |
| Key Elements | Platform partner contracted Configuration of Customer Portal Data Integration Building Analysis and Reporting | Develop Marketing Plan Customer and Market Engagement Configure Efficiency Project Portal (Marketplace) | Test the Customer and Market Responses to Monetization Strategies Further Configure Efficiency Project Portal to meet the needs of the Customers and Market Partners |
| DER Categories | N/A | Energy Efficiency Measures | Energy Efficiency MeasuresDemand Side Management |