



REV Demonstration Project:
Smart Home Rate

2019 3Q Quarterly Progress Report

Dated: October 31, 2019

Table of Contents

1.0	Executive Summary	2
1.1	Program Achievements	2
1.2	Cybersecurity and Personally-Identifiable Information Protection	2
1.3	Accounting Procedure Established	2
1.4	Costs, Benefits, and Operational Savings.....	3
1.5	Smart Home Rate	3
2.0	Smart Home Rate – Quarterly Progress.....	4
2.1	Demonstration Highlights	4
2.1.1	Q3 2019 Report - Major Task Completion	4
2.1.2	Activities Overview	4
2.1.3	Key Metrics.....	4
2.1.4	Next Quarter Forecast.....	4
2.1.5	Checkpoints/Milestone Progress	4
2.1.6	Planned Activities.....	5
2.1.6.1	Bill impacts	5
2.1.6.2	Technology installation.....	6
2.1.6.3	Technology performance.....	6
2.1.6.4	Recruiting and enrollment	6
2.1.6.5	Customer satisfaction.....	6
2.2	Changes to the Project Design	7
2.3	Work Plan & Budget Review	7
2.3.1	Phase Review.....	7
2.3.1.1	Phase Progress	7
2.3.2	Work Plan.....	7
2.3.3	Updated Budget.....	8
2.4	Conclusion.....	8
2.4.1	Lessons Learned	8
2.4.2	Recommendations	8
3.0	Appendix	9

1.0 EXECUTIVE SUMMARY

Consolidated Edison Company of New York, Inc. (“Con Edison”) and Orange and Rockland Utilities, Inc. (“O&R”), (together the “Companies”), submit this quarterly report on the progress of the Smart Home Rate REV Demonstration Project (the “Project”) being implemented 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

1.1 PROGRAM ACHIEVEMENTS

On February 1, 2017, the Companies submitted the Project for approval by Department of Public Service Staff (“DPS Staff”). On June 6, 2017, DPS Staff approved the Project. Thereafter, on July 5, 2018 Staff issued a Demonstration Project Assessment Report. The Companies subsequently filed an implementation plan for the Project with the Commission on August 24, 2018. On February 7, 2019, the Commission issued an Order Approving Tariff Amendments with Modifications.²

1.2 CYBERSECURITY AND PERSONALLY-IDENTIFIABLE INFORMATION PROTECTION

Consistent with 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. 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.³ O&R filed an accounting procedure on September 1, 2016. This accounting procedure establishes a standardized framework that will govern how the Companies

¹ Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, Order Adopting Regulatory Policy Framework and Implementation Plan (issued February 26, 2015).

² Case 18-E-0548 (*Tariff Filing by Consolidated Edison Company of New York, Inc. to Modify Its Electric Tariff Schedule, P.S.C. No. 10, to Establish Rider AB-Smart Home Rate*) and Case 18-E-0549 (*Tariff Filing by Orange and Rockland Utilities, Inc. to Modify Its Electric Tariff Schedule, P.S.C. No. 3, to Establish Rider J-Smart Home Rate*), Order Approving Tariff Amendments with Modifications (issued February 7, 2019).

³ Case 15-E-0299, *Petition of Consolidated Edison Company of New York, Inc. for Implementation of Projects and Programs that Support Reforming the Energy Vision*, General Accounting Procedure.

categorize and allocate 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 Con Edison and O&R'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 the Companies will take advantage of such offsetting benefits when they are available. Due to the early stage of implementation for the Project, there are no operational savings to report at this time.

1.5 SMART HOME RATE

The Project is designed to demonstrate how alternative rate structures can provide price signals to customers to optimize value for the customer and the system. The Project recruits residential customers with AMI meters to participate in a new electric rate and provides them with home energy management technologies to help them maximize savings on the new rate.

The Companies are implementing the Project with ICF and are deploying price-responsive home energy management platforms from Uplight, formerly Tendril, and Sunverge. In Track 1, Uplight's Orchestrated Energy platform will be deployed to automate central air conditioning ("AC") loads in participants' homes. In Track 2, Sunverge's platform will be deployed to automate home battery systems coupled with rooftop photovoltaic ("PV") systems.

2.0 SMART HOME RATE – QUARTERLY PROGRESS

2.1 DEMONSTRATION HIGHLIGHTS

2.1.1 Q3 2019 Report - Major Task Completion

- Finalized Track 1 eligible customer population.
- Finalized marketing campaign materials for Track 1.
- Confirmed that Uplight’s technology integration can support the optimization requirements of the smart home rates.

2.1.2 Activities Overview

Phase 0, Demonstration Planning: The Project team made progress on transaction agreements for Track 2.

Phase 1, Demonstration Project Development and Testing: The Project team prepared for recruitment launch for Track 1. Uplight further developed their technology integration with the selected thermostat provider.

Phase 2, Market Launch: This phase has not yet started.

Phase 3, Demonstration Project Evaluation: This phase has not yet started.

2.1.3 Key Metrics







The Companies will begin reporting measurements of key outcomes after the start of Phase 2.










2.1.4 Next Quarter Forecast

In Q4 2019, the Project team will continue to work on finalizing Track 2 transaction agreements. The Project team will begin to recruit and enroll customers in Track 1, which will bring Track 1 into the Market Launch phase.

2.1.5 Checkpoints/Milestone Progress













Track 1

Checkpoint/Milestone	Timing*	Status
Bill impacts	T1 Phase 2 Midpoint	  
Technology installation	T1 Phase 2 Start	  

Checkpoint/Milestone	Timing*	Status
Technology performance	T1 Phase 2 Midpoint	  
Recruiting and enrollment	T1 Phase 2 Start	  
Customer satisfaction	T1 Phase 2 Midpoint	  




*Details on the phases can be found in section 2.3.1.

Track 2

Checkpoint/Milestone	Timing*	Status
Bill impacts	T2 Phase 2 Midpoint	  
Technology installation	T2 Phase 2 Start	 
Technology performance	T2 Phase 2 Midpoint	  
Recruiting and enrollment	T2 Phase 2 Start	
Customer satisfaction	T2 Phase 2 Midpoint	  

* Details on the phases can be found in section 2.3.1.

egend

 <i>On Schedule</i>	 <i>Delayed w/out Major Impact</i>	 <i>Delayed or Stopped – Project Goals Impacted</i>
--	---	--

2.1.6 Planned Activities

2.1.6.1 Bill impacts

Status: Green

Expected Target by Phase 2 Midpoint: Calculate bill impacts from the first few months of the demo and compare average annual customer bill to what it would have been on their previously selected rate.

Actual by Phase 2 Midpoint: Not started.

Solutions/strategies in case of results below expectations: Plan to adjust messaging to enhance participants’ understanding of bill impacts, such as providing them with a mid-program assessment report.

2.1.6.2 Technology installation

Status: Yellow

Expected Target by Phase 2 Start: Complete technology installations at sufficient levels to meet enrollment targets.

Actual by Phase 2 Start: Not started. Phase 2 start is delayed.

Solutions/strategies in case of results below expectations: Adjust installation and customer support processes as required.

2.1.6.3 Technology performance

Status: Green

Expected Target by Phase 2 Midpoint: Monitor price communication and response capability of technology platforms.

Actual by Phase 2 Midpoint: Not started.

Solutions/strategies in case of results below expectations: Plan for continuous iteration and improvements to technology platforms in response to performance tracking.

2.1.6.4 Recruiting and enrollment

Status: Yellow

Expected Target by Phase 2 Start: Obtain enrollment levels sufficient to answer key research questions.

Actual by Phase 2 Start: Not started. Phase 2 start is delayed.

Solutions/strategies in case of results below expectations: Adjust recruitment approaches and onboarding support as necessary, and track improvements from new approaches.

2.1.6.5 Customer satisfaction

Status: Green

Expected Target by Phase 2 Midpoint: Assess customer satisfaction with the program and technology.

Actual by Phase 2 Midpoint: Not started.

Solutions/strategies in case of results below expectations: Develop plan for ongoing messaging to enhance the customer experience.

2.2 CHANGES TO THE PROJECT DESIGN

There were no changes to the project design in Q3 2019 to report.

2.3 WORK PLAN & BUDGET REVIEW

2.3.1 Phase Review

2.3.1.1 Phase Progress

In Track 1, the Project team made progress on Phase 1 (Project Development and Testing) activities in preparation for recruitment launch.

In Track 2, Phase 0 (Demonstration Planning) will continue in Q4 2019. The extension of Phase 0 into Q4 2019 will cause a delay in commencing Phase 2 (Market Launch).

2.3.2 Work Plan

Track 1

Act no	Activity Description	Lead	2017				2018				2019				2020				2021				2022	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Phase 0: Demonstration Planning	Con Edison																						
1.1	Partnership Agreement	Con Edison																						
1.2	Project Plan	Con Edison/ ICF																						
2	Phase 1: Project Development & Testing	ICF																						
2.1	Recruitment, Marketing and Communications Plan	ICF																						
2.2	Target Identification and Propensity Analysis	ICF																						
2.3	Sightline Setup/ Configuration	ICF																						
2.4	Enrollment Portal	ICF																						
3	Phase 2: Market Launch	ICF/ Tendril																						
3.1	Software	Tendril																						
3.2	Enrollment	ICF																						
3.3	Technology Installation	ICF																						
3.4	Customer Engagement	ICF																						
4	Phase 3: Evaluation	ICF/Nexant																						
4.1	Data Monitoring & Reporting	ICF/Nexant																						

Track 2

Act no	Activity Description	Lead	2017				2018				2019				2020				2021				2022	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Phase 0: Demonstration Planning	Con Edison																						
1.1	Partnership Agreement	Con Edison																						
1.2	Project Plan	Con Edison/ ICF																						
2	Phase 1: Project Development & Testing	ICF																						
2.1	Recruitment, Marketing and Communications Plan	ICF																						
2.2	Target Identification and Propensity Analysis	ICF																						
2.3	Sightline Setup/ Configuration	ICF																						
2.4	Enrollment Portal	ICF																						
3	Phase 2: Market Launch	ICF/ Sunverge																						
3.1	Operator Training	Sunverge																						
3.2	Hardware	Sunverge																						
3.3	Software	Sunverge																						
3.4	Enrollment	ICF																						
3.4	Technology Installation	ICF																						
3.6	Customer Engagement	ICF/Sunverge																						
4	Phase 3: Evaluation	ICF/Nexant																						
4.1	Data Monitoring & Reporting	ICF/Nexant																						

2.3.3 Updated Budget

Budget information is being filed confidentially with the Commission.

2.4 CONCLUSION

2.4.1 Lessons Learned

Rapid evolution of smart home device business models presents risk during the program development phase.

Contracting for a unique business model is complex and requires significant time to develop.

2.4.2 Recommendations

The Project team recommends maintaining focus on transaction agreement execution for Track 2.

3.0 APPENDIX

Continued on next page



Smart Home Rate REV Demo Project - 3Q 2019

The Smart Home Rate Demo Project (“Project”) is designed to demonstrate how alternative rate structures can provide price signals to customers to optimize value for the customer and the system. The Project seeks to recruit residential customers with AMI meters to participate in a new electric rate and provide them with home energy management technologies to help them maximize savings on the new rate.

The Companies are implementing the Project with ICF and are deploying price-responsive home energy management platforms from Uplight and Sunverge. In Track 1, Uplight’s Orchestrated Energy platform will be deployed to automate central air conditioning (“AC”) loads in participants’ homes. In Track 2, Sunverge’s platform will be deployed to automate home battery systems coupled with rooftop photovoltaic (“PV”) systems.

Project Inception: February 2017
Market Launch: September 2019
Project End Date: May 2022
Budget: \$14.5M
Q1 2019 Spend: *Filed Confidentially*
Cumulative Spend: *Filed confidentially (on budget)*



Lessons Learned:

- *Contracting for unique business model is complex and requires significant time to develop.*
- *Rapid evolution of smart home device business models presents risk during the program development phase.*

Application of Lessons Learned: *See below.*

Issues Identified:

- *The original thermostat provider in Track 1 changed the interface that Uplight used to interact with the device and additional integration development was needed, risking project delays.*

Solutions Identified:

- *Uplight focused on their integration development in Q3.*

Recent Milestones:

- *Confirmed that Uplight’s technology integration can support the optimization requirements of the smart home rates.*
- *Met with Staff on September 30 to review the marketing materials for the program.*

Upcoming Milestones:

- *Launch recruitment campaign and begin enrolling customers in Track 1.*