



REV Demonstration Project:
Smart Home Rate

2020 Q1 Quarterly Progress Report

Dated: April 30, 2020

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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 1st quarterly report for 2020 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 review by Department of Public Service Staff (“DPS Staff”). 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, 2018.² On February 7, 2019, the Commission issued an Order Approving Tariff Amendments with Modifications.³

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.⁴ O&R filed an accounting procedure on September 1, 2016. Each accounting procedure establishes a standardized framework that will govern how the Companies categorize and allocate the costs of the REV demonstration projects, and will

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 14-M-0101, *Smart Home Rate Demonstration Project Implementation Plan* (August 27, 2018).

³ 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).

⁴ 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.

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 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 Advanced Metering Infrastructure ("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 will deploy price-responsive home energy management platforms from Uplight Inc. ("Uplight") and Sunverge Energy, Inc. ("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 Q1 2020 Report - Major Task Completion

- SHR billing and data presentment IT work moved into testing phase.

2.1.2 Activities Overview

The Project has been impacted during Q1 of 2020 by social distancing guidelines and executive orders issued by the federal government and the State of New York in response to the COVID-19 pandemic,⁵ and as such both Track 1 and Track 2 are on hold. Further guidance from federal and state government will inform actions the Company takes to resume activities when appropriate for both Tracks.

Prior to the COVID-19 pandemic, Track 1 had begun recruiting participants, but had not started thermostat installations. Once the social distancing measures took effect in New York, it was no longer possible to pursue direct installation of thermostats where Company contractors would perform the thermostat installations for customers in homes. The Company immediately began taking action to revise the Project plan to use self-install approaches exclusively, where the customer will install thermostats themselves. Further, COVID-19 has placed many different types of challenges on our customers. Customers may face economic hardship, be working from home and/or have family members participating in distance learning.

Prior to the COVID-19 pandemic, Track 2 contracting had been delayed. Contracting and further planning of Track 2 will be on hold pending additional guidance on the COVID-19 pandemic from the federal and state government.

2.1.3 Key Metrics

Track 1 enrollments: 184 customers enrolled in the program, 131 Con Edison customers and 53 O&R customers. 75% of enrollees had chosen the direct install option (and will now have to be transitioned to self-install as discussed in Section 2.1.2), 25% had chosen the self-install option. In addition, 162 customers were randomized into the Control Group.

⁵See “*Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak*” (www.whitehouse.gov) issued March 13, 2020; “*30 Days to Slow the Spread*” *The President’s Coronavirus Guidelines for America* (www.whitehouse.gov) (issued March 30, 2020); and “*New York State on PAUSE*” executive order issued by New York Governor Andrew Cuomo (www.coronavirus.health.ny.gov) (effective March 22, 2020).

Track 1 thermostats installed: 0.

2.1.4 Next Quarter Forecast

In Q2 2020, the Track 1 recruitment, enrollment, and installation plans will be revised to adopt the self-installation approach. Recruitment relaunch and rate launch schedules are on hold pending further guidance on the COVID-19 pandemic from the federal and state government.

2.1.5 Checkpoints/Milestone Progress

Track 1

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

Legend

 <i>On Schedule</i>	 <i>Delayed w/out Major Impact</i>	 <i>Delayed or Stopped – Project Goals Impacted</i>
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2.1.6 Track 1 Planned Activities

2.1.6.1 *Bill impacts*

Status: Yellow

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: Thermostat installation has not started and is on hold during the COVID-19 pandemic shutdown. New plans will be developed to use self-install approaches exclusively.

Solutions/strategies in case of results below expectations: Use enhanced approaches to support self-installation of thermostats, such as virtual installation support. Expand installation and recruitment timeline.

2.1.6.3 *Technology performance*

Status: Yellow

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: Recruitment campaign had been launched but is now on hold while thermostat installation approaches are evaluated as described in item 2.1.6.2 above. Recruitment relaunch timing will also depend on pending further guidance on the COVID-19 pandemic from the federal and state government.

Solutions/strategies in case of results below expectations: Adjust recruitment tactics and incentives.

2.1.6.5 Customer satisfaction

Status: Yellow

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.

2.1.7 Track 2 Planned Activities

2.1.7.1 Bill impacts

Status: Yellow

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.

2.1.7.2 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 as contracting is on hold pending further guidance on the COVID-19 pandemic from the federal and state government.

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

2.1.7.3 Technology performance

Status: Yellow

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.

2.1.7.4 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 as contracting is on hold pending further guidance on the COVID-19 pandemic from the federal and state government.

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

2.1.7.5 Customer satisfaction

Status: Yellow

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

The COVID-19 pandemic has resulted in changes to the project design of Track 1. While the original project design included both direct install and self-install approaches, to help protect the health and safety of customers and contractors, the program will be revised to only include self-installation of thermostats. The Project team will evaluate ways to do this effectively and maintain enrollment targets. Current enrollees that had chosen the direct install option will need to be transitioned to self-install.

Track 2 requires battery installation and has also been impacted by the social distancing requirements enacted due to the COVID-19 pandemic. As transaction agreements have not been finalized, Track 2 will continue to be on hold pending further guidance on the COVID-19 pandemic from the federal and state government.

2.3 WORK PLAN AND BUDGET REVIEW

2.3.1 Phase Review

2.3.1.1 Phase Progress

Track 1 had been in Phase 2 (Market Launch) and will be paused there while the Project team adjusts plans for recruitment relaunch. Timing of recruitment relaunch and rate launch is on hold pending further guidance on the COVID-19 pandemic from the federal and state government.

Track 2 is paused in Phase 0 (Demonstration Planning); partnership agreements have yet to be finalized. Resumption of Track 2 is pending further guidance on the COVID-19 pandemic from the federal and state government.

2.3.1.2 Work Plan

Track 1

Timeline from Q2 2020 and beyond is TBD.

Act no	Activity Description	Lead	2018				2019				2020				2021				2022			
			Q1	Q2	Q3	Q4																
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

Timeline from Q2 2020 and beyond is TBD.

Act no	Activity Description	Lead	2018				2019				2020				2021				2022				2023			
			Q1	Q2	Q3	Q4																				
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																								

2.3.2 Updated Budget

Budget information is being filed confidentially with the Commission.

2.4 CONCLUSION

2.4.1 Lessons Learned

Customers did not respond well to being randomized into the Control Group.

Continued learnings from Environmental Health and Safety issues as mentioned in 4Q 2019 quarterly report.

The COVID-19 pandemic has resulted in significant impacts to the Project, as discussed in this Report.

2.4.2 Recommendations

The Project team recommends continuing to revise project approaches during the pandemic-induced delays.

Continue to evaluate the customer recruitment strategies including closing the control group, eliminating randomization and increasing the customer recruitment pool.

3.0 APPENDIX

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Smart Home Rate REV Demo Project – Q1 2020

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: Track 1 - November 2019; Track 2 -Not started.
Project End Date: December 2023
Budget: \$14.5M [revisions in progress]
Q1 2020 Spend: *Filed Confidentially*
Cumulative Spend: *Filed confidentially*



Lessons Learned:

- *T1 customers did not respond well to control group randomization.*
- *Continued learning from Environmental Health & Safety issues as mentioned in Q4 2019 quarterly report.*

Application of Lessons Learned:

- *N/A*

Issues Identified:

- *T1/T2: Due to COVID-19 pandemic impacts, it is not possible to pursue direct installation of thermostats or battery systems at this time.*

Solutions Identified:

- *T1: Suspend current recruitment efforts and adopt thermostat self-installation approach exclusively.*
T2: Put contracting on hold pending further guidance on the COVID-19 pandemic from the federal and state government

Recent Milestones:

- *None.*

Upcoming Milestones:

- *T1: Revise recruitment and thermostat installation approaches and assess timing of program relaunch.*