

REV Demonstration Project: Connected Homes Platform

2018 Q3 Quarterly Progress Report

Dated: October 31, 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 Connected Homes Platform REV demonstration project ("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 January 8, 2016, DPS Staff approved the Project. Con Edison filed an implementation plan for the Project with the Commission on January 29, 2016. The Project launched in Q2 2016 to approximately 275,000 customers in Con Edison's Brooklyn and Westchester territories. Customers have access to detailed energy insights online and have received targeted offers in their Home Energy Reports and High Usage Alerts for solar panels, Wi-Fi thermostats, Sealed home services, and the Con Edison Marketplace, as eligible.

In early 2017, the Project successfully upgraded to the second version of the Con Edison Marketplace (Marketplace 2.0), the second version of the printed Home Energy Reports (HER 2.0) and launched the second round of targeted offerings for Sealed home services, Wi-Fi thermostats, and Marketplace.

In Q2 2017, the Project team developed new modules for the SunPower and Sealed campaigns creatives, expanded marketing efforts and added two new revenue streams on the Marketplace: third-party advertising and cost-per-click referrals.

In Q3 2017, the Project team conducted successful marketing and sweepstakes campaigns resulting in significant sales of energy efficient items and revenue generation. The team also launched a new solar experience within the Marketplace designed to increase customer engagement and create a new lead generation revenue stream. Negotiations with a new distributed energy resource ("DER") partner, Mitsubishi Electric, were also finalized in the quarter, resulting in a new targeted campaign for heat pumps.

In Q4 2017, the Project team wrapped up the 2017 targeted offer campaigns for Sealed home services, smart thermostats, Marketplace products and Mitsubishi electric heat pumps. In addition, the team's optimization of Marketplace digital engagement campaigns resulted in a 25 percent increase in energy efficient product sales (lighting and thermostats), combined with a 9 percent increase in revenue. These transactions also resulted in a greater than 50 percent increase in lifetime electricity saved quarter-over-quarter. The team also successfully began testing email campaigns to promote the new solar program, resulting in 15 contracts executed.

In Q1 2018, the Project team expanded and optimized email and digital engagement marketing programs for lighting, thermostats, and the solar program. Despite being a normally quiet quarter for e-commerce activity, these efforts led to revenues in Q1 2018 that were comparable to the very successful Q4 2017, and a 10x year-over-year increase for the quarter. The first solar program installations were also completed in Q1, and the team executed its first sponsored email campaigns, establishing a new source of revenue.

In Q2 2018, Con Edison filed an amendment to the Connected Homes REV demonstration project implementation plan on May 14, 2018. The main revisions to the plan include: promote Home Energy Reports to a full program within the Energy Efficiency Program portfolio; expand the Marketplace capabilities and extend the project timeframe through December 2019; and test two customer-centered concepts that will further customer engagement with the Con Edison Marketplace. The Marketplace team also implemented an expansion of the Solar experience to include Community Solar, providing renters and multi-family homes with options to participate.

In Q3 2018, the project team sent the first wave of email promotions for Community Solar and ran a large LED lighting promotion which was the most successful to date. Lead generation activities for Sealed and rooftop solar have been a continued focus. The team also launched a landing page for the Brooklyn Queens Demand Response (BQDM) program to drive adoption and registration of smart thermostats. In addition, the team began the test trials for the two customer-centered concepts that will further customer engagement with the Con Edison Marketplace.

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 governs how the Company categorizes and allocates the costs of the REV demonstration projects and facilitates analyzing each project to determine the overall financial benefits of the program to customers.

1.3 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.

The program costs have been as planned and the program has driven increases in non-revenue generating benefits, exceeding targets for customer engagement and energy savings. Progress has continued in Q3 to facilitate revenue generation from sponsorship, advertising and increased revenue contribution of Marketplace ecommerce sales.

1.4 CONNECTED HOMES PLATFORM

The Project seeks to provide residential customers of Con Edison's service territory a set of tools designed to proactively connect the customers with cost-effective energy efficiency products and services and distributed generation offerings that will be most relevant to them. The Project is designed to remove barriers to residential adoption of DERs and animate the DER market by using customer usage data and advanced data analytics to match customer needs with vetted DER products. Con Edison's partner in the Project, Enervee, is administering marketing campaigns promoting a set of products and services to participating customers to demonstrate and evaluate the proof of concept.

2.0 CONNECTED HOMES – QUARTERLY PROGRESS

2.1 DEMONSTRATION HIGHLIGHTS

2.1.1 Since Previous Quarter – Major Tasks Completion

- The project team implemented the first wave of email promotions for Community Solar. This allows renters and multi-family home dwellers to sign up to participate in offsite solar projects directly from the Marketplace.
- Project team executed a lighting promotion in early July, selling more than 46,000 units in less than a week, delivering approximately 1,918,000 kWh of 1st year savings.
- Project team set up a landing page for the BQDM team to drive adoption and registration of smart thermostats at no cost to the customer in select neighborhoods.

Project team initiated the test trials to assess the two customer centered design concepts for the Project: Connected Homes App and Bright Futures.

2.2 ACTIVITIES OVERVIEW

The Project team began conducting the test trial for the two customer centered initiatives. For Connected Homes App, we engaged with 120 participants to access to app-based energy management tools that controls smart devices and tracking of energy usage. For Bright Futures, the team engaged with 220 customers and 200 retailers to investigate how residential customers act on their eco values and whether they choose to interact with a network of sustainable small businesses through a reward mechanism. Results of the assessment will be finalized and reported in Q1 2019.

The Project team continued to optimize Marketplace email and advertising campaigns, focusing on driving increased participation and energy savings with ecommerce promotions of lighting and rooftop and community solar.

Overall, revenue performance and customer engagement were also driven by sponsorship opportunities, such as Appliances Connection, and Con Edison partner Sealed for their HomeAdvance program were very successful and exceeded lead generation expectations. As a result, sponsored email campaigns will continue through the end of 2018.

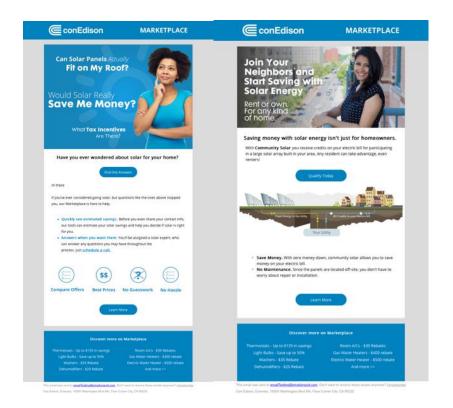
In addition to ongoing advertiser, Appliances Connection, the project team also worked with Con Edison's marketing agency, Havas, to cross promote the Smart A/C program with programmatic advertising spots on Marketplace, delivering 184,933 impressions.

Marketplace Marketing Initiatives

Solar Email Campaigns:

In addition to rooftop, the project team also added a new community solar option that allows residents of multi-family homes to participate in off-site solar projects. In July and August 2018, the team tested small scale promotions of the program in sections of Westchester, before the program was released in New York City. An email promotion went out in late September to 200,000 residents in the new territory and had higher than anticipated response rates. Since deployment, the program has collected 335 leads and 5 completed contracts. In addition to energy savings, this

also drives lead generation revenue for the project. The project team will continue to promote the program to more residents of NYC through Q4.



Left: Rooftop Solar Email. Right: Community solar email.

July Lighting promotion:

In July 2018, the team executed a lighting promotion, driving 46,768 units sold, and providing 1,918,021 in 1st year kWh savings. This was a 35% increase in units sold vs. the previous most popular sale in August of 2017 with 29,000 units sold.



Sealed Email Promotion:

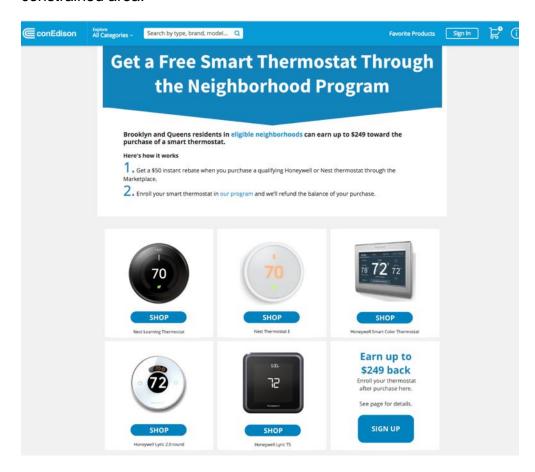
After the successful promotion of Con Edison partner, Sealed, the project team will continue to promote the program throughout 2018. In Q3, there were four promotional campaigns. These campaigns successfully drove 2,176 leads and as a result, the email list has now been expanded to 70 new zip codes, reaching an additional 70,000 homeowners.





BQDM Thermostat Landing Page:

The project team worked with the BQDM team to create a landing page on Marketplace that will be utilized to drive adoption of smart thermostats in these neighborhoods. The program allows select customers to purchase their thermostat through the Con Edison's Marketplace, and then apply for an additional rebate that covers the remaining costs of the product when they enroll their new thermostat. This enhanced incentive offer is only available to customers located in the grid constrained area.



2.2.1 Key Metrics

In Q3, the Project continued to see significant e-commerce Storefront sales. For additional details on program results to date, see Appendix A: List of Metrics and Results.

Marketplace Storefront Sales:

In Q3 2018, the team recorded 48,402 Storefront orders consisting of 46,908 light bulbs, 671 thermostats and 2 power strips. The continued use of targeted Storefront

campaigns, combined with the optimized product and pricing mix, led to a 74 percent increase in Storefront revenue quarter-over-quarter.

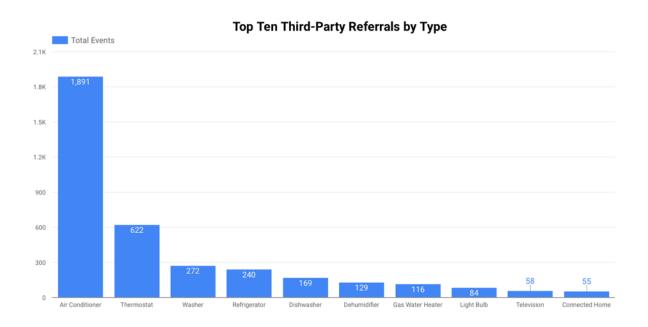
Digital Customer Engagement:

In Q3 2018, Con Edison's Marketplace attracted 236,561 unique visitors and 386,995 sessions, resulting in 736,227 corresponding page views.

The Marketplace was also effective at raising awareness of other Con Edison programs and tracking actions taken by visitors. Since inception through Q3 2018, 13,401 Marketplace visitors have clicked through to Con Edison's large appliance rebate offers, and 21,713 smart thermostat shoppers on Con Edison's Marketplace Storefront sought out information on the Smart Thermostat program.

DER Market Activation:

During Q3 2018, Marketplace customers were directed to third-party appliance retail websites 3,857 times. The most popular Marketplace categories were air conditioners and thermostats.



Energy Savings:

Estimated energy savings associated with Marketplace Storefront sales in Q3 2018 were 38,756 MWh and 262,647 Therms on a lifetime basis.

Greenhouse Gas Emissions Reductions:

The lifetime energy savings associated with Marketplace Storefront sales in Q3 2018 will avoid 44,210,551 pounds of carbon dioxide, 852.6 pounds of methane and 77.5

pounds of nitrous oxide emissions. Cumulatively, Storefront sales will cut greenhouse gas emissions by 178,855,413 lb. CO2e.

2.2.2 Next Quarter Forecast

In Q4 2018, the team will focus its efforts on channels that maximize energy savings while generating revenue.

Planned Q4 2018 activities for Marketplace include:

- Upgrading Storefront to Enervee Checkout[™] with lightbulbs.com. Checkout offers a co-branded online retail checkout experience and supports instant discounts, initially for thermostats and lightbulbs. Enervee's Checkout[™] program seamlessly integrates direct sales capabilities, including incentivized sales, into the Marketplace user experience. Checkout serves as a direct substitute for Storefront, providing customers the same ability to purchase products directly through the Con Edison Marketplace while reducing logistical burden by leveraging retail partner expertise in order logistics and fulfillment. Checkout also removes Con Edison from direct competition with traditional retailers, while enhancing the utility's role in animating the broader retail marketplace through retail partnerships.
- Continued optimization of paid search and display campaigns to drive rebates and energy savings.
- Continued outreach to setup new sponsorship and advertising opportunities for Marketplace.
- Continued execution of price drop and flash sales, holiday promotions and cross promotions of products.
- Launch Contractor finder in partnership with HomeAdvisor.
- Launch of online video to support Marketplace initiatives.
- Assess potential for enabling customers to get instant rebates for in-store and online purchases at select retailers by validating their eligibility on the Con Edison Marketplace.

2.2.3 Checkpoints/Milestone Progress

The Checkpoints established for Phase 2 of the Project Extension in the *REV*Demonstration Project Amendment to Implementation Plan – Connected Homes

Platform (May 14, 2018) supersede the prior checkpoints and are listed in the following

table. The Project Extension period runs from 1 August 2018 through 31 December 2019, and the Midpoint has been set at 31 March 2019.

Checkpoint/Milestone	Timing*	Status
DER Sales: Market Animation and Customer Choice	Phase 2 Project Extension Midpoint / End	
Messaging Effectiveness: Customer Motivation	Phase 2 Project Extension Midpoint / End	
Digital Engagement: Integrated Online Experience	450,000 visits per 6-month period	
Revenue Realization	Phase 2 Project Extension Midpoint / End	<u> </u>
Customer-Centered Initiatives	Q4 2018	
Demand Side Management	Phase 2 Project Extension Midpoint / End	

^{*}Detailed descriptions of the Phases can be found in Appendix B: Description of Phases.

Legend

On Schedule	Delayed w/out Major Impact	Delayed or Stopped – Project Goals Impacted
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2.2.4 Planned Activities

2.2.4.1 DER Sales – Market Animation and Customer Choice

Status: Green

Expected target by Phase 2 of Project Extension End: 85,100 cumulative units sold

As of Q3: DER sales were as expected in Q3.

2.2.4.2 Messaging Effectiveness – Customer Motivation

Status: Green

Expected targets for Phase 2 of Project Extension End: Open rates reach 15 percent and click-through rates reach 3 percent

As of Q3: Open rate was 116% of the End target after the first two months. Clickthrough rate after two months was 53% of the Midpoint goal.

2.2.4.3 Digital Engagement – Integrated Online Experience

Status: Green

Expected Target for Phase 2 of Project Extension End¹: 1,275,000 cumulative visits

As of Q3: Digital engagement is tracking above expectations, with cumulative visits after two months at 41% of the Midpoint goal.

2.2.4.4 Revenue Realization

Status: Yellow

Expected Target by Phase 2 of Project Extension End: \$650,000

As of Q3: Revenue realization is *below* expectations.

While revenue for the quarter as a whole expanded (with new sponsorship opportunities and the solar program), total revenues for Q3 (Phase 2 of Project Extension) were not on track to achieve the revised revenue goal, which is more ambitious than the prior goal. The project team had planned to launch additional revenue generating services in Q3 but due to strategic reprioritization these new revenue opportunities have now been planned for Q4 and into 2019. Additionally, no Storefront promotions were run in these months to maintain rebate spending below the cap.

2.2.4.5 Customer-Centered Initiatives

Status: Green

Expected Target by Q4 2018: Meco - 100 participants; Bright Futures – 10 businesses and 100 participants

As of Q3:

2.2.4.6 Demand Side Management

Status: Green

Expected Target by Phase 2 of Project Extension End: 74,700 MWh of cumulative lifetime savings from products sold on the Marketplace

¹ The target was formulated as 450,000 visits per 6-month period, which translates into 1,275,000 visits during the 17-month Phase 2 period of the Project Extension.

As of Q3: Estimated electricity lifetime savings from sales of products in the marketplace are tracking as expected.

2.2.5 Changes to Project Design

In Q4, the team will replace the Storefront ecommerce application with the cutting-edge Enervee Checkout application. This innovation has a number of advantages:

- Better customer experience, partnering with one of the most highly rated online retailers, without forgoing the ability to offer instant incentives at checkout;
- More cost-effective solution, generating higher net revenue on purchases;
- More appropriate role for Con Edison, serving as a trusted advisor and market animator, rather than as a retail competitor, consistent with REV objectives.

2.3 WORK PLAN & BUDGET REVIEW

2.3.1 Phase Progress

The team successfully worked through Phase 0 (Project Development) and Phase 1 (Project Launch) and is now working through Phase 2 (Demonstration Implementation) and Phase 3 (Project Optimization).

Phase 0 consisted of submitting the Implementation Plan and completing partner negotiations. Phase 1 consisted of all the activities required to launch the Project: data acquisition, program design and configuration, implementation of the web/Marketplace and call center tools, quality assurance testing and go-live, as well as initial customer community outreach efforts.

Phase 2 (Demonstration Implementation) tasks focus on overall maintenance and reporting for the Project. In lieu of the Request for Information ("RFI") process included in the Phase 3 Work Plan tasks, Con Edison supported NYSERDA's development of the REV Connect online platform. This platform allows DER developers to read about and express interest in becoming involved with New York's demonstration projects. The team believes that at this stage in the Project, this level of effort in the DER recruitment process is suitable for potential third-party engagement.

Phase 3 of the Project began during Q4 of 2017 as Con Edison collected data and evaluated results and lessons learned from various Project efforts. A full description of the major Project phases is set forth in Appendix B: Description of Phases.

2.3.1.1 Updated Work Plan

The timeline below details Phases 2 and 3 of the Project's extension from August 2018 to December 2019, per the amended implementation plan.

Activity	Activity Description	Status	Lead	20)18		201	19
No.				Q3	Q4	Q1	Q2	Q3 Q
1.0	Phase 2 - Demonstration Implementation							
.1	Project Management	IN PROGRESS	Con Edison					
.1.1	Track program metrics	IN PROGRESS	Con Edison/Enervee					
.1.1.1	Track digital and outbound engagement metrics	IN PROGRESS	Enervee					
.1.1.2	Track energy efficiency savings	IN PROGRESS	Enervee					
.1.1.3	Report on DER sales and other revenue channels	IN PROGRESS	Enervee					
.1.1.4	Report on Marketplace Net Promoter Score	IN PROGRESS	Enervee					
.1.2	Reporting	IN PROGRESS	Con Edison/Enervee					
.1.2.1	Deliver Quarterly Reports	IN PROGRESS	Con Edison/Enervee					
.2	Delivery	IN PROGRESS	Enervee					
.2.1	Maintain, Expand Categories/Incentives & Optimize Marketplace	IN PROGRESS	Enervee					
.2.2	Community Solar	IN PROGRESS	Enervee					
.2.3	Bundles products & services such as EV Chargers & insurance/warranties	IN PROGRESS	Enervee					
.2.4	Expand sponsorhip opportunities across all marketing activities	IN PROGRESS	Enervee					
.2.5	Integrate contractor home services	IN PROGRESS	Enervee					
.3	Ongoing Customer & Community Outreach	IN PROGRESS	Con Edison					
.4	REV CONNECT PLATFORM - DER Online Resource	IN PROGRESS	Con Edison/NYSERDA					
.5	Customer-Centered Applications: Meco & Bright Futures	NOT STARTED	Con Edison/Deloitte					
2.0	Phase 3 - Project Optimization							
2.1	Evaluate project rollout	IN PROGRESS	Con Edison/Enervee					
2.3	Optimize Program	NOT STARTED	Con Edison/Enervee					
2.4	Refine Program Design	NOT STARTED	Con Edison/Enervee					
2.4.1	Refine DER Categories and Pricing	NOT STARTED	Con Edison/Enervee					
2.4.2	Optimize Revenue/Benefit Opportunity	NOT STARTED	Con Edison/Enervee	1 1				

2.3.1.2 Updated Budget

Budget information is being filed confidentially with the Commission.

2.4 CONCLUSION

2.4.1 Lessons Learned

The project team has identified a number of scenarios for maximizing cost effective energy savings in 2019 and for increasing customer engagement. The main learning from this exercise is that there is a tradeoff between using marketing resources towards driving overall customer engagement across the Marketplace (e.g. appliances, solar, connected homes, and sales of smart thermostats and LEDs) versus focusing resources solely on sales of smart thermostats and LEDs. With the New York market reaching higher levels of saturation with residential LEDs, the project team needs to be more aggressive with discounted pricing during promotions to drive similar volumes of sales.

2.4.2 Recommendations

The project team is working with the EE team to expand the incentivized products available via Checkout to cover additional energy efficiency measures offered by Con Edison.

During the Project Extension, the project team plans to use new analytics tools to develop personalized customer journeys, tracking the impact a more customer centric approach can have on driving customer participation and Marketplace KPIs.

2.5 INCLUDED APPENDICES

Appendix A: List of Metrics and Results

Appendix B: Description of Phases

Appendix A: List of Metrics and Results

Checkpoint	Category	Metric	Definition	Reporting Cadence	Results for Q3 2018 (not cumulative)
DER Sales: Market		Qualified solar leads generated	Number of qualified leads from Marketplace	Cumulative	Rooftop:1,793 leads Community: 442 leads
Animation and Customer Choice & Digital Engagement: Integrated Online	Leads and Acquisitions	Solar sales reported	Number of solar systems sold	Cumulative	Rooftop: 108 contracts sold Community: 10 contracts sold
Experience		Solar installations	Number of solar systems installed/community solar service initiated	Cumulative	Rooftop: 40 installations Community: 4 implementations
Revenue Realization	Total Revenue	Total revenue to Con Edison	Revenue gained	Annually	Actual revenue through Q3 2018 is roughly 42 percent of the projected total Marketplace revenue through the Phase 2 Project Extension (December 2019)
Demand Side Management: Customer Co-Benefits	Energy / Demand / Benefits	Energy savings (Marketplace Storefront sales)	Total kWh savings from product sales from the Marketplace Storefront	Quarterly	Electric savings (MWh): 38,756, Gas savings (Therms): 262,647
		Reduction in greenhouse gas emissions	Greenhouse gas emissions reduction from product sales from Marketplace Storefront	Quarterly	44,210,511 lbs. CO2; 852.6 lbs. CH4; 77.5 lbs. N2O.

Appendix B: Description of Phases

Phase	0. Project Development	1. Project Launch	2. Demonstration Implementation	3. Project Optimization
Milestone (Stage Gate to Next Phase)	Negotiations Complete Partner contracts signed DPS approval	Successful Platform Build: Attract vendors in key categories Successful data transfer	Platform Utilization: Click through rates Qualified leads Contact center volume Vendor retention Customer satisfaction	Revenue Realization: Revenue per source Customer satisfaction Vendor retention
Key Elements	Platform provider contracted DER providers signed-on	Develop platform End-to-end testing Contact center training Program go-live	Evaluate response of specific audiences to DER combinations Channels Messages	Leverage more granular customer data Optimize profit by refining categories, pricing, and testing new business models Optimize for energy efficiency gains Evaluate response from the two test applications: Meco. & Bright Futures
DER Categories	N/A	N/A	Solar systems Home audits Smart thermostats, LEDs, smart power strips HVAC systems Appliances Smart Home products	Expanded DER products and services New DER partnership
Status	Completed	Completed	Ongoing	Started