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Associate General Counsel
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October 31, 2017

Hon. Kathleen H. Burgess, Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

Re: Central Hudson Gas & Electric Corporation's REV Demonstration Project Implementation Plan Status Update (Q3 2017) in Case 14-E-0318 – *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Central Hudson Gas & Electric Corporation for Electric Service* and Case 14-M-0101 – *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*

Dear Secretary Burgess:

Central Hudson Gas & Electric Corporation ("Central Hudson") submits for filing in the above-referenced cases its REV Demonstration Project Implementation Plan Status Update. A request for confidential treatment was submitted to the Records Access Officer today, along with Report Attachments 1 through 4, and 7.

If there are any questions related to this filing, please do not hesitate to contact Joe Hally, Manager-Energy Transformation & Solutions at 845-486-5373 (jhally@cenhud.com) or Laura Butler, Director-Digital Customer Experience at 845-486-5431 (lbutler@cenhud.com).

Respectfully submitted,

A handwritten signature in blue ink that reads "Paul A. Colbert".

Paul A. Colbert
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cc: Marco Padula (DPS)

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Central Hudson Gas & Electric

CenHub

Residential Energy Exchange



**Reforming the
Energy Vision**

**Demonstration Project
Implementation Plan 2017 Q3 Status
Update**

Regarding Case 14-M-0101, Case 14-E-0318

October 31, 2017

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Executive Summary

This report serves as the status update for Central Hudson's Reforming the Energy Vision (REV) Demonstration Project, CenHub. This report is being filed in response to Case 14-E-0318, Joint Proposal Order Approving Rate Plan dated June 17, 2015 and the Case 14-M-0101, Reforming the Energy Vision Demonstration Project Assessment Report dated November 10, 2015. This document provides the third quarter ("Q3") of 2017 progress, next steps, roles, responsibilities, governance, work plan, budget and reporting going forward.

CenHub strives to deliver the following benefits:

- Creation of a home energy advisory platform providing insight into energy usage for all residential customers and accessibility to energy efficiency programs such as rebates.
- Introduction of new channels and cross promotion for customers to participate in energy and cost savings programs
- Increased awareness and customer choice associated with program enrollment and the purchase of products and services
- Customer convenience
- Lower 3rd party customer acquisition and transaction costs
- Evaluation of potential new revenue streams
- Educational tools to assist customers to more effectively manage their energy bills

Central Hudson believes that limited consumer engagement related to household energy use can be increased through improvement of five (5) primary factors:

- A) Awareness
- B) Availability of information
- C) Customer effort or lack of convenience
- D) Understanding the value of products and services
- E) Trust in available solutions

Central Hudson is working to meet the growing expectations of our customers. Based on the interactions between consumers and other industries, there are trends that can be leveraged within CenHub that align with current customer expectations.

Figure 1: Customer Experience Industry Trends



The experiences that have been incorporated within CenHub to date include:

- A) Self Service

- a. Access to an interactive customer engagement platform with personalized electric and gas energy usage dashboards
 - i. Insights+ enables drill down into time based electric usage dashboards
 - b. The ability to purchase products and services through the CenHub Store and automatically apply rebates at checkout
 - c. Green Button Download – ability to download usage information in an xml format per the Green Button standard
 - d. Account management such as bill pay, start and stop service
- B) Customizable experience
 - a. Personalized messaging, energy saving tips and recommended actions
 - b. Tailored messaging based on customer's program eligibility and past actions.
 - c. Ability to set notifications for outages and billing
- C) Pattern based promotions
 - a. Cross-promotion of programs relevant to the attributes of the individual customers and past actions
- D) Personalized loyalty programs
 - a. Customers are rewarded for interacting with CenHub through points, badges, leaderboards, gift cards, promotional discounts and rebates
- E) Multi-channel experience
 - a. The website and mobile website have both been updated to include the CenHub Insights and Store experience for customers.
 - b. Call Center and other employees have been trained on the functions and benefits of CenHub to enhance the interaction between our first responders and customers
 - c. CenHub brand extends to Central Hudson's non-wires alternative, Peak Perks
 - d. The CenHub brand has been expanded into local retail stores offering instant rebates at checkout for select LED brands
- F) Enhanced offers through 3rd Party partnerships
 - a. Phase 3 launched in Q2 2017 to all residential customers leveraging the extended partnership between Central Hudson, Itron (formerly Comverge) and Simple Energy.
 - i. Insights+ functionality is embedded into the Peak Perks customer offering for measurement and verification of load curtailment for a statistical sample of customers that did not choose the thermostat option. Itron will cover the Insights+ subscription fee on their behalf.
 - ii. Insights+ is available as a subscription service for all other residential customers through the CenHub Store.
 - iii. Insights+ is part of the service offering that will be included in the Smart Home Rate project and Central Hudson and Itron are exploring more partnership opportunities within the Peak Perks program.
- G) Choice of Rates
 - a. Central Hudson is working with Simple Energy on creating new customer experiences for the upcoming Time of Use and Smart Home Rate.

To facilitate CenHub, Central Hudson has embarked on a multi-release roll out strategy:

- A. CenHub My Account, CenHub Insights and CenHub Store Launch (Complete)
- B. Migration to Web Experience Management and Identity Management (Complete)

- C. Insights+ Service Offering (Complete)
- D. TOU and Billed Amount Overlay User Interface (In Progress)
- E. Optimization and Enhancement of Offerings (Ongoing)

Section 1: Demonstration Design Progress

A) Phases

Central Hudson completed the first Program Year of the CenHub Demonstration Project as of March 31, 2017. Q2 marked the start of Program Year 2. The highlight of Q2 was the launch of CenHub Phase 3 – enabling residential enrollment in the Insights+ subscription service. In Q3 the team turned their focus to marketing Insights+ and preparing for the TOU and Smart Home Rates.

Ongoing Optimization and Enhancement Offerings

- **Customer Engagement** – We are in the process of contract negotiations with multiple companies to launch real-time customer feedback and monitoring technologies on the website. These technologies allow us to assess the response time to web related customer issues and allow customers to provide feedback about our web pages. Based on the response rate and information gathered we plan to use the feedback to influence our web and program design going forward to improve the overall customer experience and drive more customer engagement. We plan to create an implementation plan in Q3 2017
- **Functionality Enhancements** – We are in the planning and design phase for rolling out increased user interface functionality related to the newly proposed Time of Use rate and Smart Home rate. This will be launched in Q4 2017. We also have been in talks with various potential partners and existing partners on ways to provide more value to the customer experience and hope to have a confirmed plan for upgrades and design discussions in Q4 2017.
- **Web Experience Consistency** – No improvements were made in this area in Q3.

Planned Tasks for Q4

1. Mass Marketing of Insights+
2. Marketing for Black Friday/Cyber Monday Sales
3. Billed Usage Overlay for Insights and Insights+
4. Launch Sealed partnership for Home Energy Audits available through CenHub Store
5. Launch web feedback and monitoring tools
6. Launch TOU user interface enhancements
7. Launch Smart Home Rate
8. Enable enrollment in a TOU/Insights+ bundle at reduced subscription pricing

Table 1 details the functionality assigned to each Phase with the green highlighted areas indicated those that have been achieved to date.

Table 1: Project Phases

Phase	1. Portal & Marketplace Launch	2. Web/Mobile/Social Strategy Enhancements	3. Insights+ Launch	4. Ongoing Optimization and Enhancement of Offerings
Milestone (Criteria Met to Move to Next Phase)	<i>Successful Integration and Delivery of Portal & Marketplace:</i> <ul style="list-style-type: none"> Successful data transfer Successful rebate application 	Successful Migration to Web Experience Management: <ul style="list-style-type: none"> Successful content and data transfer 	<i>Successful Integration and Enrollment:</i> <ul style="list-style-type: none"> Successful enrollment process Successful data transfer 	<i>Revenue Realization & Increased Engagement:</i> <ul style="list-style-type: none"> Acquisition of new products and services Enrollments in TOU rate
Key Elements	<ul style="list-style-type: none"> Integration into existing 'My Account' portal End-to-end testing Admin and Support staff training Program marketing campaign Go-Live 	<ul style="list-style-type: none"> Modernize Login, New User Registration, Forgot Password and CenHub My Account landing page Enable segmentation capability for targeted marketing and cross promotion of programs based on customer attributes 	<ul style="list-style-type: none"> Integrate enrollment into Peak Perks program Integrate enrollment process into Marketplace Program marketing campaign Procure meter inventory Establish meter change process 	<ul style="list-style-type: none"> Integrate Peak Perks portal and enrollment process Evaluate 3rd party and ESCO relationship leads for new offerings Investigate C&I offerings
Product & Service Categories	<ul style="list-style-type: none"> Thermostats Smart plugs LED lightbulbs Green Button Download 	<ul style="list-style-type: none"> Improvements to account security through modernized password and username practices Establish a framework that will allow for a more consistent and standardized website experience in the future 	<ul style="list-style-type: none"> Interval data and drill down capability 	<ul style="list-style-type: none"> Commercial Programs TDR products including installation and registration services Program cross promotion Bundle TOU rate Bundle load disaggregation methods

B) Hypotheses

In order to measure the success of CenHub, Central Hudson has defined five (5) hypotheses to test throughout the life of the project. These hypotheses are targeted at understanding Central Hudson's residential customers. They span the elements of customer engagement, customer behavior, and customer preference. Understanding the customer ensures alignment of business offerings and introduction of business models that benefit the customer through increased choice and control.

Table 2: Test Statements

Test Statement	Hypothesis	Q3 2017 Results
<p>Customers may be more engaged in their energy usage and energy management if they have:</p> <ol style="list-style-type: none"> 1. Greater awareness of available products and services that are relevant to them 2. The opportunity to interact with applicable tools through a fun, educational and engaging online experience. 	<ul style="list-style-type: none"> • If Central Hudson utilizes a Multi -Channel marketing campaign, specifically inclusive of email and social media to market CenHub to residential customers... <ul style="list-style-type: none"> ○ then Central Hudson will increase the number of Digitally Engaged Residential Customers¹ to 60% of the residential customer base within 12 months of the April 1, 2016 Phase 1 Go Live Date. • If Central Hudson utilizes gamification, reminders and relevant savings opportunities to encourage and prompt customers to complete the digital home energy profile... <ul style="list-style-type: none"> ○ then 5% of the Digitally Engaged Residential Customers will complete the home energy profile within 12 months of the April 1, 2016 Phase 1 Go Live Date. • If Central Hudson develops an engaging platform that informs customers about their energy use, provides actionable energy savings tips linked to available products and services, and reinforces behaviors through gamification and social interaction... <ul style="list-style-type: none"> • then on average Digitally Engaged Residential Customers will become more energy efficient than their digitally unengaged counterparts 	<ul style="list-style-type: none"> • Current enrollment rate in CenHub My Account – 43% <p>The Action Items within Table 8 detail the steps we are taking to try to improve upon this metric and drive more enrollment activity.</p> <ul style="list-style-type: none"> • Current Home profile completion rate – 6 % <p>We will continue to educate customers on the value of completing their home profile and reward customers through the points system but no additional action plan is required for this objective.</p>
<p>Customers may become engaged in the purchase of energy products and services they value through:</p> <ol style="list-style-type: none"> 1. An information driven, guided e-commerce experience. 2. A social online experience that inspires competition and community action 3. The availability of instant rebates and rewards programs 	<ul style="list-style-type: none"> • If Central Hudson provides CenHub users with energy usage information and targeted actionable savings tips linked to products and services available on CenHub ... <ul style="list-style-type: none"> ○ then we expect to achieve 8,000 product purchases within the first 12 months of the April 1, 2016 Phase 1 Go Live Date. ○ Then we expect to achieve 8,000 product purchases in year two April 1, 2017 – April 1, 2018 	<ul style="list-style-type: none"> • Product sales for Program Year 1 – 14,640 • Product sales for Program Year 2 – 2,518 • Projected product sales for year 2 – 8,327 <p>The \$6 6-pack lighting options continue to be our best selling items. In Q3 we introduced a \$4 4-pack to the store which has increased lighting sales.</p> <p>In Q3 we added the Nest E to the Store. Customers seem to find this price point more attractive but sales are still minimal. We also</p>

³ Defined within Section B “Test Population” as customers that are currently My Account users and CenHub users following the Go Live Date

		added the ability to access the Central Hudson rebate for Nest products on Nest.com. This has so far resulted in 6 sales and the capture of an additional 36 new customer emails that we can utilize for retargeting efforts for account enrollments and Store marketing.
We believe Central Hudson will successfully implement a new business model leveraging our expertise and partnerships to create new revenue streams and that there are service providers willing to work with Central Hudson to deliver choice and value to our customers.	<ul style="list-style-type: none"> • If Central Hudson provides CenHub customers with energy usage information and actionable savings tips linked to products and services available on CenHub ... • then CenHub will generate approximately \$40,000 of Platform Service Revenues (PSRs) for Central Hudson within the first 12 months of the April 1, 2016 Phase 1 Go Live Date. 	<ul style="list-style-type: none"> • Post-tax PSR's for Program Year 1 - \$30,273 • Post-tax PSR's for Program Year 2 - \$4,529 <p>The Action Items within Table 8 detail the steps we are taking to try to improve upon this metric and drive more product sales.</p>
Customers may be willing to pay for Advanced Data Services.	<ul style="list-style-type: none"> • If we offer an Insights+ package featuring an intuitive and engaging user experience and utilize multi-channel and targeted marketing... • then 1,000 customers will subscribe to the Advanced Data Services package within 12 months of the September 30, 2016 Phase 2 Go Live Date. 	<ul style="list-style-type: none"> • Total Insights+ Enrollments - 127 • Peak Perks M&V enrolled population - 65 • Insights+ enrolled residential population - 62
Advanced Data Services may influence customers' behavior.	<ul style="list-style-type: none"> • If Central Hudson directly markets to Insights+ subscribers and provides insights and tips regarding management of their energy usage and cross-promotes programs such as Targeted Demand Response... <ul style="list-style-type: none"> ○ then customers with Insights+ subscriptions will make 10% more product purchases per customer than the 'Digitally Engaged Residential Customer' within the first 12 months of subscription enrollment (measured on a rolling 12 month avg. beginning 12 months after the September 30, 2016 Phase 2 Go Live Date.) ○ 25% of Advanced Data Services subscribers will elect a non-standard rate offering such as our existing Time of Use rate within 2 years of the 	Now that we have a larger Insights+ population we are currently working with our business intelligence team to capture data to being reporting on these metrics.

	September 30, 2016 Phase 2 Go Live Date.	
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Figure 3: Program Year Sales Totals by Product Category

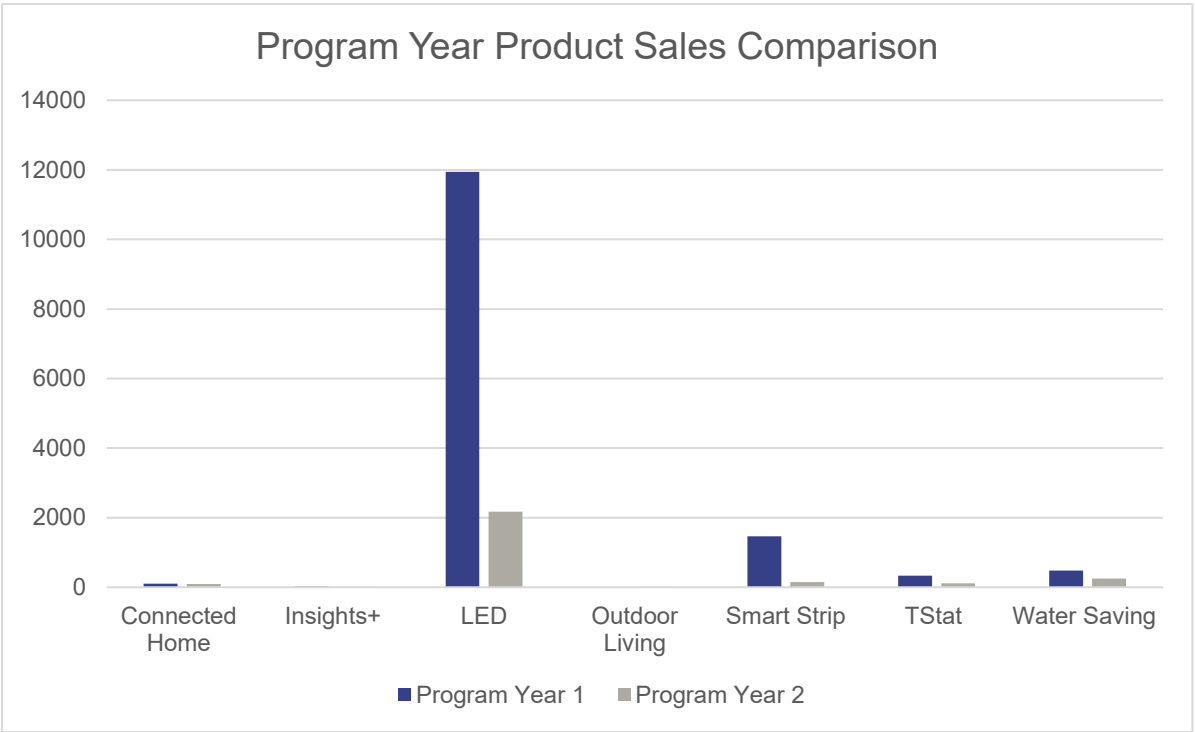
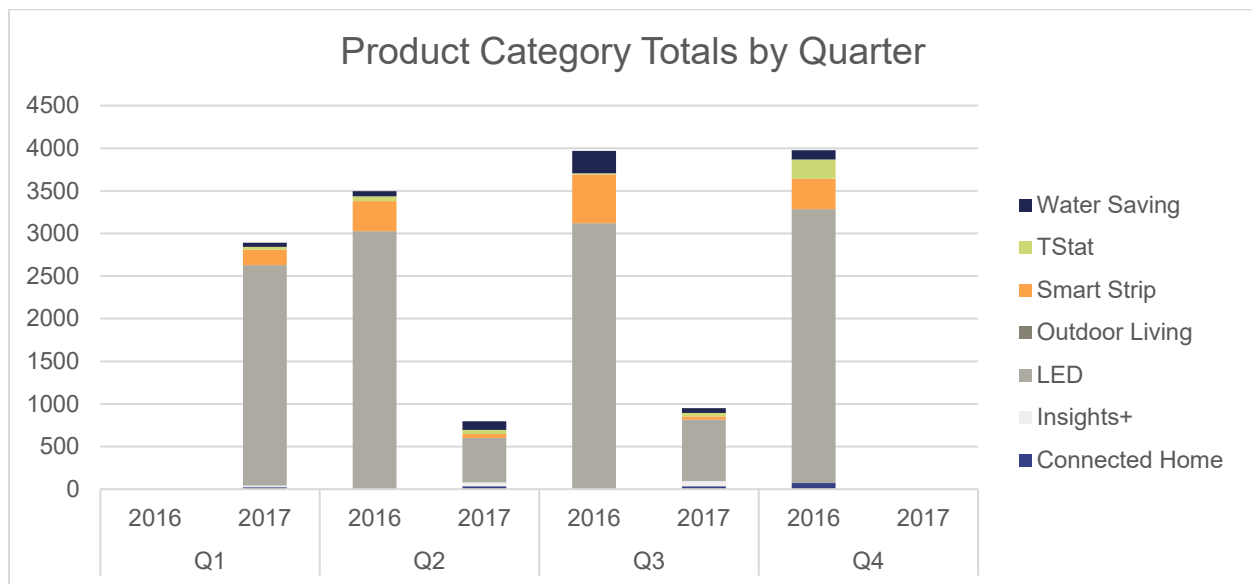


Figure 4: Quarterly Sales Results Comparison



Program Year 2 sales continue to mimic the shape of 2016 sales, however the quantities are significantly lower in Program Year 2 despite our marketing and outreach efforts. Central Hudson customers continue to purchase convenient, low priced products. Higher priced items such as Smart thermostats and connected home products are engaging a small subset of Central Hudson customers. Central Hudson will continue to work with Simple energy in closely monitoring sales volumes in order to continuously introduce products of interest and varied price points in order to increase conversion rates.

C)Population

Central Hudson's customer base is very diverse and falls into various categories of digital engagement. A segment of Central Hudson's customers are highly active with digital outlets, such as on-line shopping, social media, and banking. Central Hudson saw a significant increase in downloads when it first launched its mobile app and outage map. The Company is actively communicating with its customers via Facebook and Twitter and there is the potential to delight our customers through more digital channels. Therefore the Company aims to increase the number of digitally engaged customers through the evolution of CenHub and better understand the drivers behind their engagement.

Central Hudson is analyzing the residential customer population in an attempt to understand what online behaviors are prevalent among varying customer segments. Through preliminary analysis, customers can be defined according to the Test Populations defined in Table 3 and can be further categorized according to Figure 4. Figure 4 includes a "snap shot" illustration of customer account longevity and CenHub penetration. This information is valuable because it highlights the importance of engaging new customers sooner and the need to use different methods to engage long standing account holders. The team continues to dive deeper into this data to enhance our overall marketing strategy.

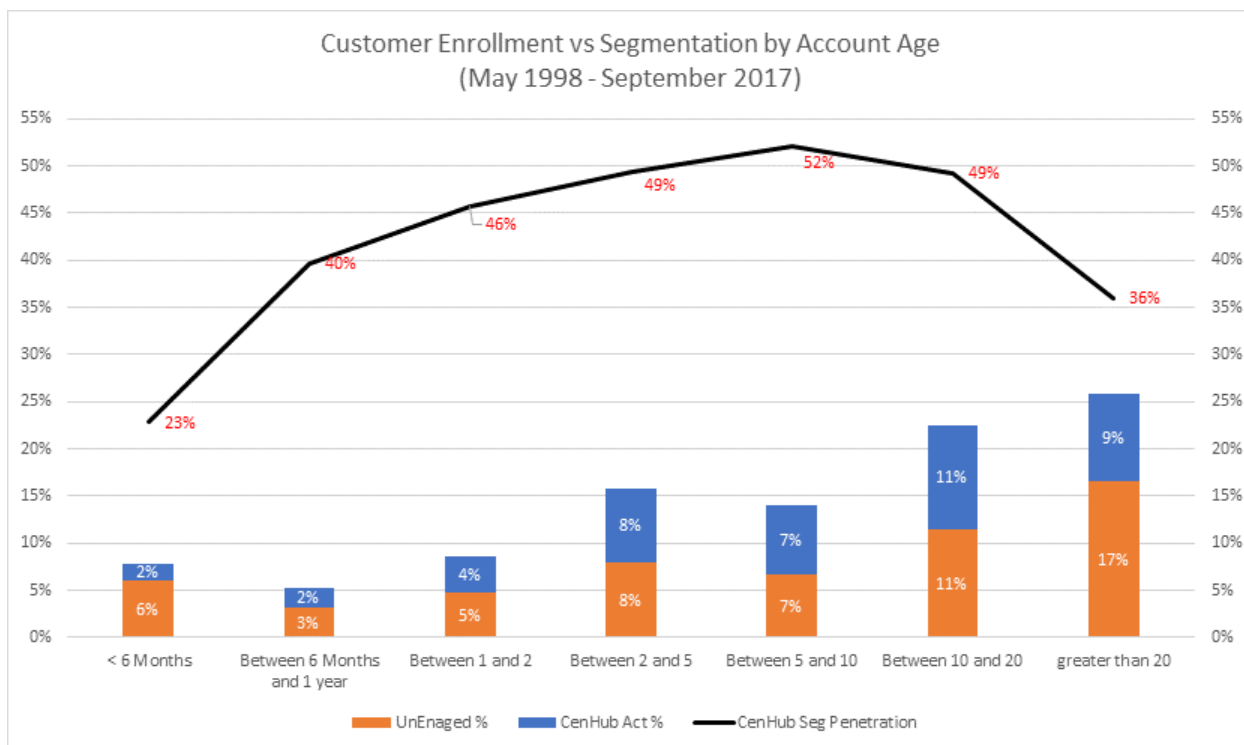
Table 3: Test Population

Test Population Description	Selection Method	Population Size (as Reported on Dec 10, 2015)	Q3 2017 Population Size
Residential PV Customers <ul style="list-style-type: none"> to be analyzed within Channel and Segment Tests 	Identification / Selection Method: <ul style="list-style-type: none"> Net Meter installation record 	3,741	7,061
Digitally Engaged Residential Customers <ul style="list-style-type: none"> to be analyzed within Test Statement #1 to be analyzed within Test Statement #5 to be analyzed within Channel and Segment Tests 	Identification / Selection Method: <ul style="list-style-type: none"> Current My Account users Opt-in to enrollment in CenHub following project go live 	136,000 ² , all existing My Account users will be automatically enrolled in CenHub	114,959
Digitally Unengaged Residential Customer <ul style="list-style-type: none"> to be analyzed within Test Statement #1 to be analyzed within Channel and Segment Tests 	Identification / Selection Method: <ol style="list-style-type: none"> Paper bill recipient non-My Account user 	107,000 ⁴	147,596
Existing customer transferring service(s) / 'Moves' <ul style="list-style-type: none"> to be analyzed within Channel and Segment Tests 	Identification / Selection Method: <ul style="list-style-type: none"> Existing customer – transferring service 	65,400	42,054
New Residential Customer requesting service in Program Year 2 <ul style="list-style-type: none"> to be analyzed within Channel and Segment Tests 	Identification / Selection Method: <ul style="list-style-type: none"> Non-My Account / CenHub user New Service request online or via call 	As Required	600
Home Energy Report Recipient <ul style="list-style-type: none"> to be analyzed within Channel and Segment Tests 	Treatment Group listing	103,000	103,000
Insights+ Subscriber <ul style="list-style-type: none"> to be analyzed within Test Statement #5 to be analyzed within Channel and Segment Tests 	Identification / Selection Method: <ul style="list-style-type: none"> Voluntarily Subscribes Pays the Associate Subscription fee 	N/A	62
Comverge Target	Identification / Selection Method:	62	65

² Upon detailed review and implementation of Phase 1 Central Hudson identified that inactive accounts were being counted in the initial enrollment totals

• Peak Perks M&V	• Peak Perks customer		
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Figure 5: Customer Longevity and CenHub Penetration



D)Scenarios

CenHub is composed of a set of features and functionalities that align directly with the hypothesis to be tested. This alignment ensures clarity and prioritization of scope and program design. Table 4 describes the solutions that will deliver on each hypothesis.

Table 4: Test Scenarios

Scenario	Description	Current Functionality and Impact
<p>If Central Hudson utilizes a Multi - Channel marketing campaign, specifically inclusive of email and social media, to market CenHub to residential customers...</p> <p>a. then Central Hudson will increase the number of Digitally</p>	<p>Simple Energy continues to successfully send marketing emails and engagement emails. Through our marketing campaigns and website upgrades, we constantly strive to find new avenues to promote sign ups and encourage interactions with CenHub.</p> <p>All customer communications are reviewed by the internal Central Hudson team composed of representatives from</p>	<p>Residential Customer My Account Enrollment Rate : 43%</p> <p>In Q3 we acted on the following marketing campaign topics:</p> <ul style="list-style-type: none"> • Insights+ Radio Ad • Nest E Thermostat Promo • CenHub Insider

<p>Engaged Residential Customers³ to 60% of Central Hudson's residential customer base within 12 months of the April 1, 2016 Go Live Date.</p>	<p>Corporate Communications, Marketing, Energy Efficiency and the demo project team.</p> <p>In coordination with the Simple Energy marketing channels Central Hudson has utilized its social media and web platforms to advertise all of the features and benefits of CenHub.</p> <p>As part of the Phase 3 Insights+ Launch, we are working in coordination with Simple Energy, Corporate Communications and Marketing to develop material featuring tutorials of the Insights+ product.</p>	<ul style="list-style-type: none"> • \$1 LED Google Adwords • Solar Eclipse Flash Sale • Local Hudson Valley Magazine E-Blast • Free shipping Promo • Vacation, Connect Home Security • Google Home <p>We set up a booth at the Dutchess County Fair featuring connected home items such as the Philips Hue, Sengled speaker bulb and Sengled Securiy Cam/LED Flood light. We also provided an interactive touchscreen kiosk for customers to learn more about the products and rebates available through the Store and our Energy Efficiency programs.</p> <p>We expect customer enrollment will continue to increase as the CenHub features evolve and new marketing strategies are implemented.</p>
<p>If Central Hudson utilizes gamification, reminders and relevant savings opportunities to encourage and prompt customers to complete the digital home energy profile...</p> <p>a. then 5% of the Digitally Engaged Residential Customers will complete the home energy profile within 12 months of operations (4/1/16 – 4/1/17).</p>	<p>New tips are developed weekly on CenHub Insights to keep the content fresh and drive continuous customer engagement. We are currently in the testing phase of adding points programs for registering for My Account and enrolling in eBills and automatic payments. These programs will offer higher points values and determine how effective the gamification component is at incenting customers to act. Central Hudson and Simple Energy are revisiting the points system to identify ways to increase engagement in the rewards program while not exceeding the rewards budget.</p> <p>In coordination with Simple Energy Marketing channels, Central Hudson launched a test case for points redemption. To better understand if customers are susceptible to loss aversion, a series of emails were sent out to customers prompting them to redeem their points by March 31st or else they would expire. This campaign resulted in an over 30% conversion rate which is far above the cross industry</p>	<p>Gamified Experience Engagement Levels:</p> <p>Program Year 2 Statistics:</p> <ul style="list-style-type: none"> a. Tip Completions: 14,122 a. Badges Earned: 8,088 b. Home Profile Completions: 963 d. Logins: 29,309 <p>Program Year 1 Statistics:</p> <ul style="list-style-type: none"> a. Tip Completions: 41,331 c. Badges Earned: 42,278 d. Home Profile Completions: 5,791 d. Logins: 106,281 <p>Overall, engagement with the gamification components have grown in program Year 2.</p>











⁶ Defined within Section B "Test Population" as customers that are currently My Account users and CenHub users following the Go Live Date

	benchmark of 20% for loyalty program expiration campaigns.	
<p>If Central Hudson develops an engaging platform that informs customers about their energy use, provides actionable energy savings tips linked to available products and services, and reinforces behaviors through gamification and social interaction...</p> <p>a. then on average Digitally Engaged Residential Customers will become more energy efficient than their digitally unengaged counterparts</p>	<p>The Energy Insights pages offer multiple avenues to receive energy saving tips such as the "Virtual Home" on the tips tab and on the "Overview" screen.</p> <p>The "Overview" screen also provides a usage graph for the most recent usage period compared to similar households and efficient households. The "My Usage" screen allows overlay of the current usage trend with the previous year's history, the usage pattern of like or efficient households and the weather.</p>	<p>Through web analytics the team has identified that though customers are visiting the CenHub site they are primarily engaged with the tips and rewards pages and not with the My Usage page that provides the visual tools and information about their usage. In Q4 we will be working on methods to increase traffic to this page especially as we add more features to this section of the website.</p>
<p>If Central Hudson provides CenHub users with energy usage information and targeted actionable savings tips linked to products and services available on CenHub...</p> <p>a. then we expect to achieve 8,000 product purchases within the first 12 months of operation of the CenHub (4/3/16 - 4/3/17)</p>	<p>The CenHub Store is available for anyone interested in purchasing energy efficient products.</p> <p>Only Central Hudson CenHub My Account holders will be able to access the instant rebates at checkout.</p>	<p>In comparison to Q3 2016 when we launched the CenHub Store, Q3 2017 sales totals, number of transactions, revenues, and average quantity per transaction are lower.</p> <p>We continue to add new products quarterly and have added a second \$1bulb promotion.</p>
<p>If Central Hudson provides CenHub users with energy usage information and actionable savings tips linked to products and services available on CenHub...</p> <p>a. then CenHub will generate approximately \$40,000 of Platform Service Revenues (PSRs) for Central Hudson within the first 12 months of operation (4/3/16 - 4/3/17)</p>	<p>Central Hudson and Simple Energy have co-invested in the marketing strategy for CenHub in order to maximize customer touch points and drive product sales from the CenHub Store. Both companies also share equally in the net profit of CenHub Store sales.</p> <p>Fully embedding the Simple Energy sites into the CenHub My Account experience also makes shopping simple and seamless for the customer.</p>	<p>For Program Year 2 Q3 we have generated \$3,515 as compared to \$11,941 in Program Year 1 Q3.</p> <p>Customers continue to be most engaged with the lowest cost products that have minimal profit margins.</p>
<p>If we offer an Insights+ package featuring an intuitive and engaging user experience and utilize multi-channel and targeted marketing...</p> <p>a. then 1,000 customers will subscribe to the Insights+</p>	<p>Central Hudson will offer customers the ability to enroll in a voluntary, subscription based service offering that introduces enhancements to the current Insights experience. The program includes replacement of the customer's existing house meter with an Insights+ meter and the ability to view hourly usage data on a day behind basis.</p>	<p>Insights+ enrollment is available on CenHub Store for qualifying residential customers. Once enrolled, customers receive a series of onboarding emails introducing them to what is available to them with the new service at different stages of the enrollment lifecycle.</p>

package in the first year (6/6/17 – 6/6/18)	Central Hudson is also extending an existing partnership to provide M&V capabilities via the meter data to Converge for the Peak Perks TDM program. For randomly selected customers the Insights+ service will be provided at no cost. We view the partnership extension as a true example of the concept of REV. It fills a functionality gap that existed in the M&V of our NWA initiative, introduces new customer engagement features and introduces no additional cost to the eligible customers.	To date there are 127 customers enrolled in the Insights+ service.
<p>If Central Hudson directly markets to Insights+ subscribers and provides insights and tips regarding management of their energy usage and cross-promotes programs such as Targeted Demand Response...</p> <p>a. then customers with Insights+ subscriptions will make 10% more product purchases per customer than the 'Digitally Engaged Residential Customer' and 25% of enrollment in TOU rates within the first 12 months of subscription enrollment (measured on a rolling 12 month avg. after establishing the initial 12 months of program</p>	<p>The data available can be paired with TOU rates, demand response programs, or smart home devices to allow the customer to maximize their energy savings and automate their home to the level that they desire and see the results of their actions.</p> <p>Increased visibility of benefits will incent customers to further engage through product purchase and/or enrollment in programs offered both by Central Hudson or other third parties outside of CenHub. Overall, Central Hudson wants to provide customers with the means and ability to have a choice in their energy management, which will drive further engagement.</p>	<p>Not yet implemented.</p> <p>Central Hudson is in talks with existing program partners and alternative providers on an effective way to merge the Insights+ package with other offerings as an additional enrollment option for customers or new product offer on the Store.</p>

E) Checkpoints

Table 5: Targets and Results

Target Date	Milestone	Target	Project Life Cumulative Actuals	Program Year 1	Program Year 2
4/1/2016	<i>CenHub Phase 1 - Go Live</i>	4/1/2016	4/3/2016	4/3/2016	Complete
7/31/2016	<i>CenHub Phase 2 – Go Live</i>	7/31/16	9/7/16	9/7/2016	Complete
12/31/2016	<i>Capital Expenditures⁴</i>	\$1,200,000	\$1.8M	\$1.8M	Complete
7/1/2018	<i>Annual Maintenance Expense⁵</i>	\$1,100,000	\$1.16 ⁸	\$0.98M	 \$0.2M
4/1/2017	<i>Enrolled CenHub Customers as % of total Residential Customer Base</i>	60%	N/A	42.3%	 43%
4/1/2017	<i>Product Purchases</i>	8,327	N/A	14,640	 2,518
9/15/2016	<i>CenHub Phase 3 Insights+ Enrollment - Go Live</i>	9/15/2016	N/A	Release 1 (Comverge M&V) - 3/31/2017 Release 2 (Residential Enrollment) – 6/6/2017	127
4/1/2017	<i>% of Enrolled CenHub Customers Completed Home Profile</i>	5%	N/A	5%	 6%
4/1/2017	<i>CenHub Platform Service Revenues (pre-tax)</i>	\$97,732	N/A	\$40,263	 \$6,862
9/15/2017	<i>Insights+⁶ Cumulative Deferral</i>	\$125,000	\$92,521	\$125,886	 \$31,000
9/15/2017	<i>Insights+ Capital Expenditures</i>	\$70,000	\$117,302	\$328,357	Complete
9/15/2017	<i>Insights+ Subscriptions</i>	1,000	N/A	127	N/A
9/15/2017	<i>Insights+ PSR</i>	\$24,000	N/A	\$2,724.54	 N/A
Status Key  On or exceeding target  Off target <=10%  Off target >10%					

⁴ Cumulative Capital Expenditures includes capital expenditures prior to April 3, 2016

⁵ Cumulative Maintenance Expense includes expenses beginning on April 1, 2017

⁶ Formerly Advanced Data Services

Section 2: Project Structure & Governance

In Q3 of 2015 Central Hudson created a new division, Energy Transformation & Solutions (ET&S), that includes a team solely dedicated to CenHub as well as teams dedicated to Energy Efficiency, Demand Response, non-wire alternatives, and other demonstration projects in order to more closely collaborate and deliver energy saving tools and programs to customers.

A) Project Team

To deliver CenHub Central Hudson created a matrixed internal team composed of members from ET&S, Corporate Communications and Marketing, IT and the Call Center. In Q3 2017, Central Hudson continued to expand its relationships with the following vendors:

- Simple Energy – to create the CenHub Insights and CenHub Store functionality
- Cognizant Technology Solutions – to provide project management support and system testing
- Itron – to provide hosted meter data management services and to leverage opportunities to cross promote the Targeted Demand Response (TDR) and Dynamic Load Management (DLM) programs

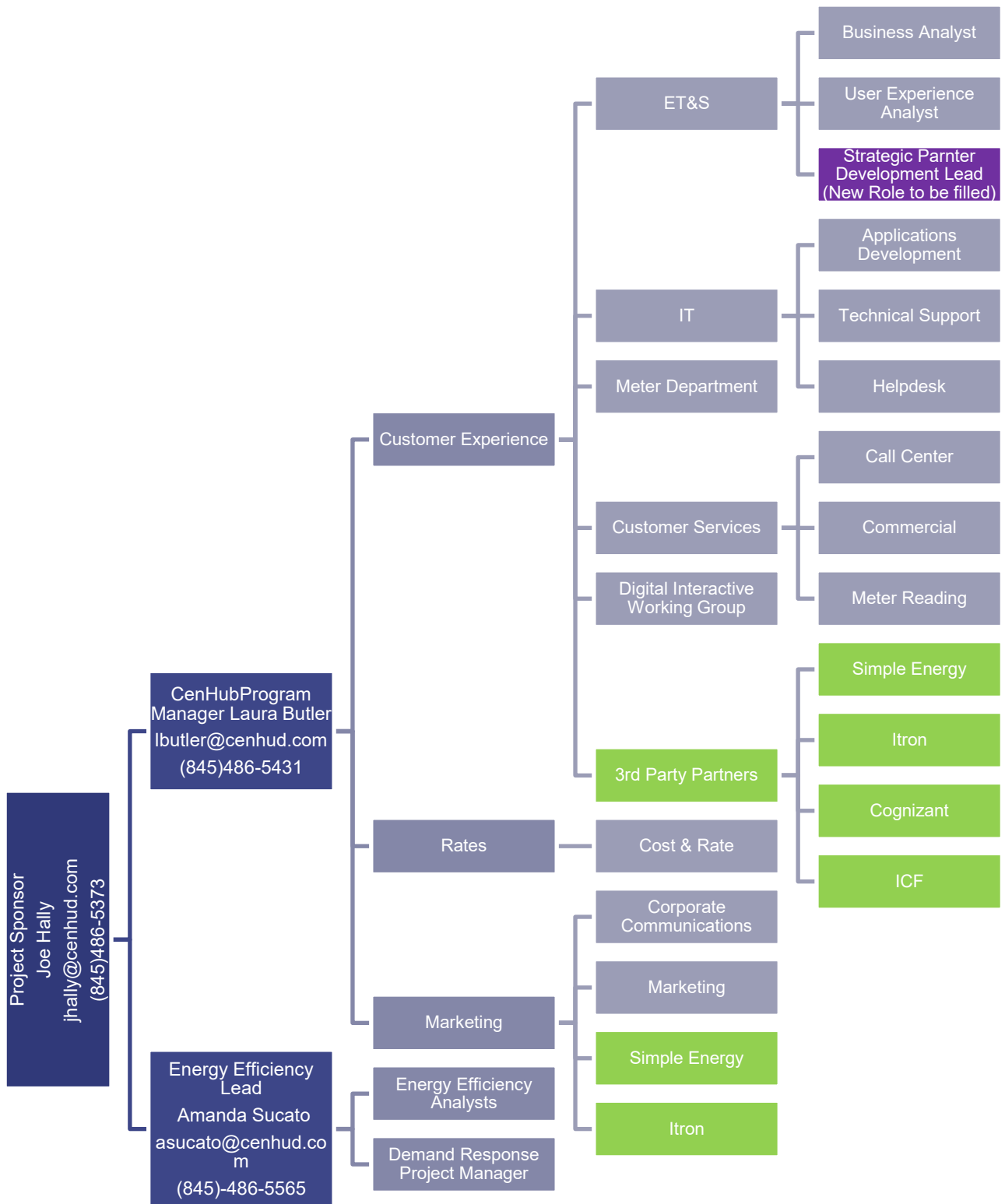
Central Hudson and our partners have truly embraced the REV initiative and continue to evolve CenHub.

In order to ensure ongoing customer satisfaction, operation of the CenHub functionality and success of the new business processes being created by the evolution of CenHub Central Hudson has taken the following actions in Q3 2017:

- In Q3 of 2016, the ET&S team identified a skills gap in the sales and partnership building arena. In 2017 and the years following the PSR goals increase substantially. These goals cannot all be met by sales of the products currently on the store. We need a team member that understands the customer market, their needs and wants and has the skill set to approach other 3rd parties to prospect and create value proposition related to partnering through the platform we have built in CenHub. The existing team does not possess this skill set so Central Hudson defined a new position and posted the position but we have yet to be able to fill the role. This is an untraditional role for a utility and as such the utility pay scale is difficult to align with the market pay that individuals of this background expect. Central Hudson is continuing its search and hopes to fill the role as soon as possible.
- In Q1 2017 Central Hudson and Simple Energy began efforts to work together to audit data exchanges to improve quality assurance and identify efficiency improvements. This is an ongoing effort and the team is making progress.

As of June 30, 2017 the project is being staffed as follows; points of contact are denoted in the dark blue boxes:

Figure 4: Team Members



B) Roles and Responsibilities

To ensure success and accountability for all tasks, the Program and Project management team members have outlined all project related responsibilities and identified the various levels of ownership for each task. The program objectives and tasks associated with meeting these objectives are captured in various forms starting with a Project Charter, architecture and design diagrams and prototypes, carried through to bi-weekly deliverables, detailed testing instructions, results and bug fix prioritization and ending with a step by step deployment plan for moving the changes to the live system.

Table 6: Roles & Responsibility Matrix

Central Hudson Gas & Electric	Description
Project Management	Central Hudson owns overall project delivery and success criteria.
Integration with Central Hudson website and Internal Systems	Central Hudson has integrated Simple Energy's customer engagement portal (CenHub Insights) and marketplace (CenHub Store) into its existing website and mobile site and rebranded as a family of offerings through CenHub.
Testing Across Platforms	Central Hudson creates detailed test plans and scripts for each phase of the project and has performed multiple rounds of functional and user acceptance testing. Bugs are tracked, prioritized and remedied on an agreed upon schedule with project team members and vendors. The go live activities also include a round of validation testing before officially calling the launch complete. The project team utilizes a similar approach for all phases.
Access to Customer Data	Central Hudson is providing weekly and daily data feeds in the agreed upon file format to Simple Energy and Itron to facilitate associated program administration and marketing.
Customer Outreach and Marketing Strategy	Central Hudson is informing the customer base of the upcoming availability and functions of CenHub through a multi-channel marketing strategy developed in concert with Simple Energy, Itron and ICF.
Energy Efficiency Program Information & Requirements	The ET&S team has been brought together in a collaborative work space that has facilitated frequent and effective information sharing, brainstorming, and decision making. A new support ticketing system and internal FAQs have been made easily accessible to internal teams in order to track any issues and define escalation procedures. All aspects of CenHub are designed with Energy Efficiency targets and available programs in mind.
Metering Solutions	Central Hudson will schedule and perform meter changes for subscribing customers
Data QA/QC	The ETS team works very closely with the internal Business Intelligence team to leverage all available program participation data and relevant customer insights
Sales & Partnership Development	This is an existing gap – Prospecting partnerships to develop additional customer offers

Partner	Description
Integration with Internal Systems	<p>Simple Energy and Itron continue to provide requirements, information delivery standards, and assistance to support Central Hudson's development of interfaces as we have looked to expand upon the CenHub platform.</p> <p>All partners will continue to work together with the Central Hudson team for future releases and ongoing enhancements.</p>
Marketing Strategy (Simple Energy)	Simple Energy and Itron provide expertise, experience, and guidance in order to assist Central Hudson with the development of a Multi-channel marketing strategy.
Insights+ – Data Repository and Management (ITRON)	Itron hosts the Meter Data Management Repository for the duration of the project per contract terms. Itron will provide meter usage data in the agreed upon file format and time interval to facilitate program and partner support.
Project Management	<p>Cognizant is continuing to provide overall Project Management for the technical releases of CenHub.</p> <p>Each partner has assigned an Engagement Manager for ongoing relationship support and planning of future functionality as well as a ticketing/reporting mechanism for resolution management.</p>

C) Governance

Central Hudson tracks progress, alignment to project objectives and performance in comparison to original hypotheses throughout the life of the project according to Table 7.

Table 7: Governance Approach

Format	Frequency	Participants
Standups – short in person discussion to identify any blockers or clarify tasks items	As needed based on criticality of project tasks	All project team members
Program short term planning – in person review of all requirements and assignment of tasks to team members	As needed based on criticality of project tasks	ET&S, vendor partners as appropriate
Status report – combination of written documentation and in-person/conference call discussion	Weekly and Bi-Weekly	Core Team, Project and program managers with project sponsor and key stakeholders as needed
Product and sales reviews – combination of written documentation and in-person/conference call discussion	Quarterly	Project team, Simple Energy and Energy Efficiency SMEs
Marketing plan reviews – combination of written	Weekly (Central Hudson only) Monthly – all relevant leads	Marketing director, project and program managers, SMEs as

documentation and in-person/conference call discussion		needed, project sponsor, vendor leads
Project Update – documented newsletter of the latest progress for high level awareness	Bi-Weekly	Created by the ET&S team and distributed to all relevant stakeholders across Central Hudson and partner vendors
Sponsor Meeting – review scope and schedule, risks, impacts and next steps	As needed	ET&S, Marketing, IT
Data Audit – review all data reports being exchanged between Central Hudson and Simple Energy to build out a data dictionary and identify, prioritize and resolve data discrepancies	Weekly	ET&S, BI, IT and SE

Section 3: Work Plan & Budget

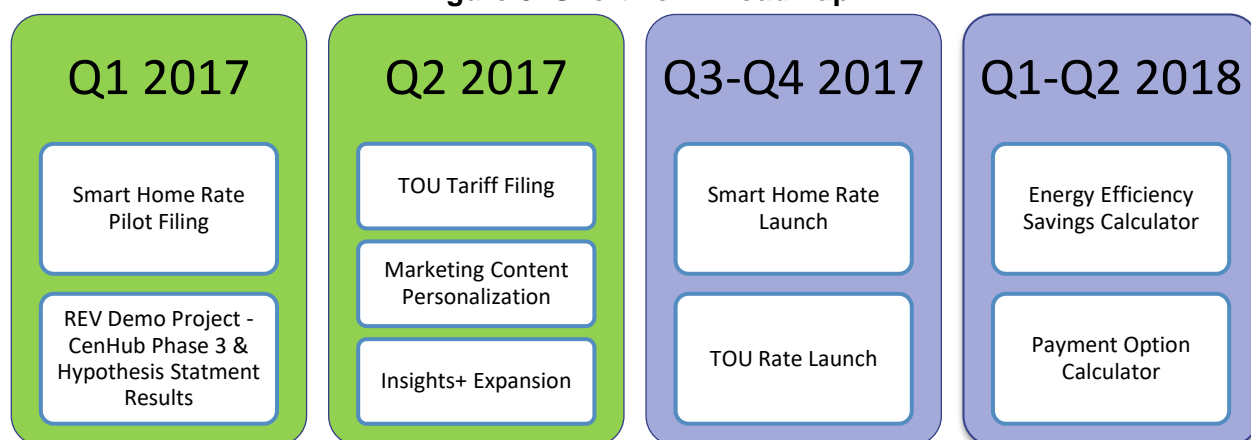
A) Project Plan

In Q3 the team solidified requirements definition and design concepts to enable functionality and unique customer experiences for the Smart Home Rate, Time of Use Rate and the ability to display billed amount information within the user interface to assist customers in correlating usage and bill amounts. This functionality will go-live in Q4.

a. Schedule

- I. Figure 5 provides a high level overview of the CenHub short term delivery schedule.

Figure 5: Short Term Roadmap



b. Actions in Progress

I. Project Planning and Execution

- In Q3 the team detailed the requirements and began building changes to the Insights and Insights+ user interfaces to provide visual cues and call out boxes to distinguish peak and off-peak usage data. Programming of the new TOU rate was also finalized. Testing is currently underway and functionality will go live in Q4 after approval of the new TOU rate.

II. Usability

- The ET&S team is in talks with vendors to launch real-time customer feedback and website monitoring solutions to enhance our ability to improve response time to website issues and to influence our future designs with real customer input.

III. Alignment

- Central Hudson is incorporating the REV Track 2 Order obligations, Energy Efficiency goals and Peak Perks program objectives into the short term roadmap and design decisions. This

will ensure greater stakeholder understanding of downstream impacts, promote better upfront planning and design decisions and overall result in better digital customer experiences.

IV. Marketing

- The team has expanded beyond traditional marketing channels leveraging tools such as Google Ad Words and creating partnerships with Hudson Valley Magazine and the Poughkeepsie Journal to reach broader audiences.

B) Financials

Redacted

C) Risks, Opportunities and Mitigation Strategies

Table 8 details how we are expanding on our successes and creating action plans to improve in the areas where we are projecting to be off target.

Table 8: Action Items

Risk / Opportunity Category	Action Plan
<p>Opportunity – Brand Recognition</p> <p>Completion Date: On-going</p>	<p>Central Hudson is continuing with the build out of the CenHub product family and incorporating the upcoming Smart Home Rate and Time-Of-Use Rate into the online experience and future marketing plans.</p> <p>We will be promoting the \$1 bulb offer on the CenHub Store on toll gate arms at the Newburgh-Beacon bridge beginning November 1st. We will also be creating mailers featuring our Store home products in partnership with Hudson Valley Magazine in Q4 and are preparing for another Black Friday/Cyber Monday Store campaign.</p>
<p>Risk – CenHub My Account enrollment</p> <p>Projected Completion Date: On-going</p>	<p>Despite expanding our marketing partnerships and featuring CenHub at the Dutchess County Fair we have not made a marked increase in MyAccount enrollments.</p> <p>An internal team has been assigned to investigate the registration and account transfer processes to identify and investigate solutions to remove customer barriers to entry.</p>
<p>Opportunity – Gamification utilization</p> <p>Projected Completion Date: Q4 2017</p>	<p>We are analyzing the gamification engagement statistics and marketing campaigns to determine the future path for loyalty programs.</p> <p>We have reached out to our partners at Forrester Research for guidance on building out successful and sustainable loyalty programs and will take this information into consideration as we develop a more robust program plan.</p>
<p>Risk – Low PSRs and Slowing Sales</p> <p>Projected Completion Date: Q4 2017</p>	<p>We are in talks with other potential program partners on adding additional products and services to the CenHub Store to increase PSR's and increase sales.</p> <p>We currently working with Sealed and Simple Energy to add the Home Advance product offering to the Store.</p>
<p>Risk – Support organization preparedness and employee buy-in</p> <p>Projected Completion Date: On-going</p>	<p>The team has increased the frequency and audience included in status and design session meetings to improve communication, understanding and accountability. The new structured processes around requirements gathering and change order management has vastly improved initial understanding and has resulted in identification of process gaps and data transfer needs much earlier in the design process, avoiding rework time and improving testing results.</p>
<p>Risk – NYS Meter Approval</p>	<p>The Itron Centron OpenWay residential single-phase meter with Verizon 4G cellular card in not yet approved in New York State. Approval is being sponsored by National Grid. We were under the assumption that this meter approval would be completed prior to our Phase 3 start date but this is not the case. Not having the meter approved and available for use is a risk to the project schedule and puts our decision to move forward with Itron as our meter data management system host at risk. To mitigate this risk the team has worked with Itron and they are willing to offer the polyphase OpenWay meter at the residential meter cost for Stage 1. But Central Hudson will still need to have the residential meter approved in 2017 in order to continue to utilize Itron as the meter provider.</p>

Report Attachment 1: Insights+ Incremental OM

Report Attachment 2: Insights+ Carrying Charge WO

Report Attachment 3: Insights+ Capital WO

Report Attachment 4: CenHub Incremental OM

Report Attachment 5: CenHub Insights Statistics

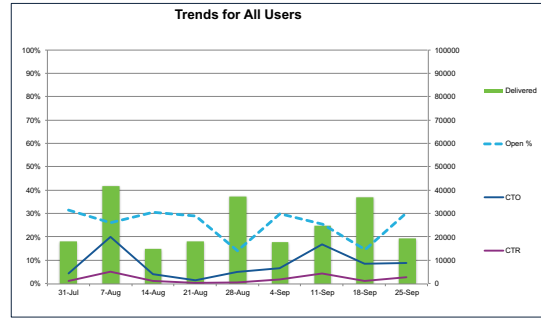
Report Attachment 6: Q3 2017 Traffic and Engagement

Report Attachment 7: Q3 2017 CenHub Ecommerce

Report Attachments 1 - 4

REDACTED

LAST WEEK					
Weekly Insights	Emails Delivered	19414			
	Opened	5935			
	(open as a % of delivered)	30.6%	NA	NA	NA
	Clicked (unique)	530			
	(as a % of delivered)	2.7%	NA	NA	NA
	(as a % of opened)	8.9%	NA	NA	NA
Unsubscribes		11	0	0	0
Last week - Messages Caulking Reuse					
This week - Messages Virtual Home					

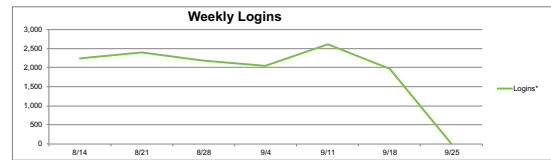


Comments:

Terminology:
CTO: Click-to-open: Unique clicks / Unique opens, shows raw trend
CTR: Click through rate: Unique clicks / Emails delivered, isolates impact of those who actually opened the email

Last Monday: 9/25/17		Last Week									
Email 1		8/21	8/27	8/14	8/21	8/28	9/4	9/11	9/18	9/25	
	Delivered	1420	226	14856	18131	37283	17866	24828	37009	19414	
	Opened	497	80	4567	5288	5292	5368	6320	5490	5935	
	Clicked	21	16	189	81	274	354	1072	465	530	
	Open %	35.0%	35.4%	30.7%	29.2%	14.2%	30.0%	25.5%	14.8%	30.6%	
	CTO	4.2%	20.0%	4.1%	1.5%	5.2%	6.6%	17.0%	8.5%	8.9%	
	CTR	1.5%	7.1%	1.3%	0.4%	0.7%	2.0%	4.3%	1.3%	2.7%	
Email 2	Delivered	16737	40942	0	0	0	0	0	0	0	
	Opened	5237	10492	0	0	0	0	0	0	0	
	Clicked	235	1988	0	0	0	0	0	0	0	
	Open %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	CTO	4.5%	18.9%	NA	NA	NA	NA	NA	NA	NA	
	CTR	1.4%	4.9%	NA	NA	NA	NA	NA	NA	NA	
	CTR	1.4%	4.9%	NA	NA	NA	NA	NA	NA	NA	
Email 3	Delivered	0	626	0	0	0	0	0	0	0	
	Opened	0	321	0	0	0	0	0	0	0	
	Clicked	0	188	0	0	0	0	0	0	0	
	Open %	NA	51.3%	NA	NA	NA	NA	NA	NA	NA	
	CTO	NA	58.6%	NA	NA	NA	NA	NA	NA	NA	
	CTR	NA	30.0%	NA	NA	NA	NA	NA	NA	NA	
	CTR	NA	30.0%	NA	NA	NA	NA	NA	NA	NA	
Other emails (if necessary)	Delivered	0	0	0	0	0	0	0	0	0	
	Opened	0	0	0	0	0	0	0	0	0	
	Clicked	0	0	0	0	0	0	0	0	0	
	Open %	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	CTO	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	CTR	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	CTR	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total	Delivered	18157	41794	14656	18131	37283	17866	24828	37009	19414	
	Opened	5734	10893	4567	5288	5292	5368	6320	5490	5935	
	Clicked	256	2192	189	81	274	354	1072	465	530	
	Open %	31.6%	26.1%	30.7%	29.2%	14.2%	30.0%	25.5%	14.8%	30.6%	
	CTO	4.5%	20.1%	4.1%	1.5%	5.2%	6.6%	17.0%	8.5%	8.9%	
	CTR	1.4%	5.2%	1.3%	0.4%	0.7%	2.0%	4.3%	1.3%	2.7%	
	CTR	1.4%	5.2%	1.3%	0.4%	0.7%	2.0%	4.3%	1.3%	2.7%	
Logins*	Total	2195	3527	2245	2403	2194	2039	2615	1978	0	
	New User Logins	341	345	287	303	288	306	327	265	0	

Period: 9/25 - 10/01	PROGRAM TOTAL	COMPLETED THIS WEEK	PROGRAM TOTAL LAST WEEK	2017 YTD	2016 Program Totals
Logins	165632	0	165632	84418	81214
New User Logins	38004	0	38004	12797	25207
Tips Completed	69839	0	69839	39693	30146
Badges Earned	58701	0	58701	23033	35668
Home Profile Completions	7609	0	7609	2824	4785
Reward Redemptions	2824	0	2824	2720	104
Unsubscribes	3470	11	3459	947	2523

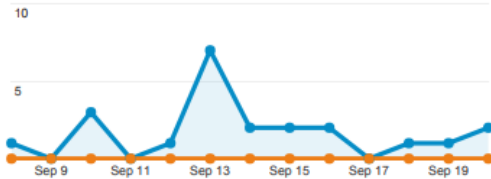


ANALYTICS REPORTS

All Users
+0.00% Sessions

Green Button Connect Clicks

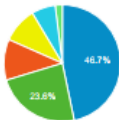
Sep 8, 2017 - Sep 20, 2017: Total Events
Sep 8, 2016 - Sep 20, 2016: Total Events



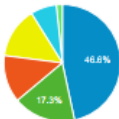
Users by Browser

Chrome Safari Firefox Internet Explorer Edge Other

Sep 8, 2017 - Sep 20, 2017



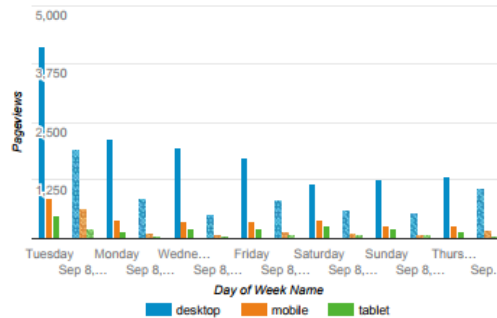
Sep 8, 2016 - Sep 20, 2016



Total Events and Unique Events

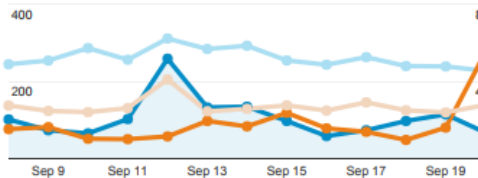
Event Category	Total Events	Unique Events
UI Interaction		
Sep 8, 2017 - Sep 20, 2017	22	17
Sep 8, 2016 - Sep 20, 2016	0	0
% Change	100.00%	100.00%

Most Active Day of the Week by Device



More than once per week visitors

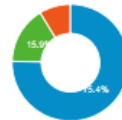
Sep 8, 2017 - Sep 20, 2017: Users Pages / Session
Sep 8, 2016 - Sep 20, 2016: Users Pages / Session



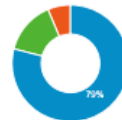
Visits by Device

desktop mobile tablet

Sep 8, 2017 - Sep 20, 2017



Sep 8, 2016 - Sep 20, 2016

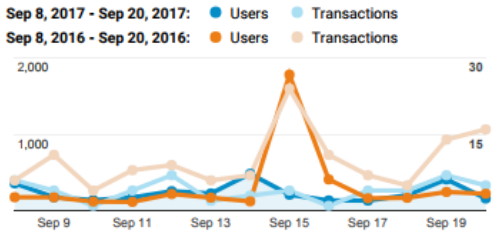


CENHUB INSIGHTS

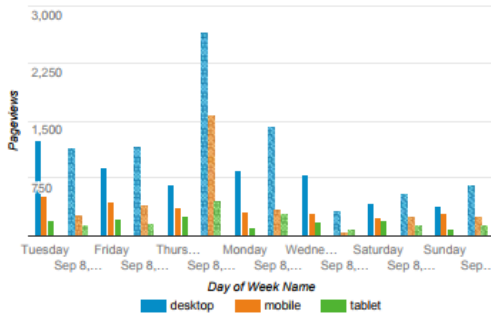
- LAST YEAR'S PROMOTIONS:
 - Level Up Home Profile Completion
- THIS YEAR'S PROMOTIONS:
 - Home Profile Promotion
 - LED Lighting – Swap out your lights and choose the Right LED Bulb
- The total number of sessions has decreased from last year to this year.
- Pageviews are highest on Tuesday's for desktop devices.
- Pageviews for mobile devices have decreased from last year.
- Traffic from tablets are higher than last year.

Report Attachment 6

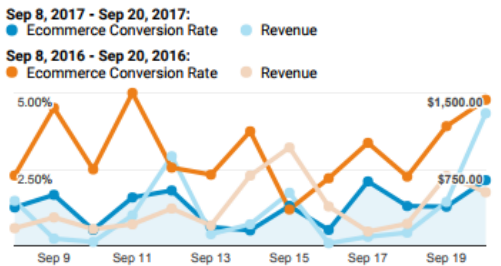
Unique Visitors and Transactions



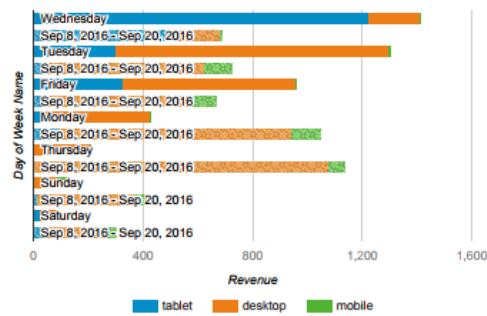
Most Active Day of the Week by Device



Ecommerce Conversion Rate and Revenue



Revenue by Day of Week Name and Device Category



Average order value

Sep 8, 2017 - Sep 20, 2017

\$87.33

Avg for View: \$87.33 (0.00%)

Sep 8, 2016 - Sep 20, 2016

\$39.02

Avg for View: \$39.02 (0.00%)

Average Quantity Per Transaction

Sep 8, 2017 - Sep 20, 2017

1.69

Avg for View: 1.69 (0.00%)

Sep 8, 2016 - Sep 20, 2016

1.73

Avg for View: 1.73 (0.00%)

Quantity

Sep 8, 2017 - Sep 20, 2017

118

% of Total: 100.00% (118)

Sep 8, 2016 - Sep 20, 2016

312

% of Total: 100.00% (312)

CENHUB STORE

- LAST YEAR'S PROMOTIONS:
 - Free Shipping
- THIS YEAR'S PROMOTIONS:
 - Recommendations for your LED lighting
 - Home Profile completion
 - Upgrade to Insights+
- Wednesday was the highest revenue day this period.
- Customers are engaging on their tablet device more this year than last year during this period.
- The quantity of products sold has decreased from this period last year.
- MaxLite LEDs are the highest selling product.

Report Attachment 7

REDACTED