July 1, 2015

VIA ELECTRONIC FILING
Honorable Kathleen H. Burgess
Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, New York 12223-1350

Re: Case 14-M-0101 – Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision. ("REV")

Dear Secretary Burgess:

Enclosed for review by the Staff of the Department of Public Service please find three demonstration project proposals that New York State Electric and Gas ("NYSEG") and Rochester Gas and Electric ("RG&E") (collectively the "Companies") have prepared in response to a Commission requirement in the ORDER ADOPTING REGULATORY POLICY FRAMEWORK AND IMPLEMENTATION PLAN ("Track 1 Order").[1] In that Order the Commission directed New York's electric utilities to "engage third parties and develop concepts for demonstration projects, and file initial demonstration projects…not later than July 1, 2015".[2] The Track 1 Order also provided the detailed criteria that would be employed to assess demonstration project proposals.[3]

Our demonstration project proposals, attached to this letter, address three important elements of the Commission's vision for REV: (1) the development of an energy marketplace (the "Energy Marketplace"); (2) the development of a more flexible interconnection process (Flexible Interconnect Capacity Solution or "FICS"); and (3) the use of a community-based energy asset planning process (Community Energy Coordination or "CEC") that considers procurement of distributed energy resources ("DER"). The three demonstration projects were developed based

[1] Case 14-M-0101 – Proceeding on the Motion of the Commission in Regard to Reforming the Energy Vision, February 26, 2015, at 155-116, 132.
[2] Id.
[3] Id., Appendix D.

on feedback from customers. Together the projects create a portfolio of solutions that provides value to customers the community, our partners, and ourselves. This letter provides an overview of these three demonstration project proposals and addresses several regulatory considerations including the treatment of their costs. The details of the three proposals including their compliance with the Commission's criteria for review are presented in the attached proposals.

1. FICS

The FICS is a new model for connecting large-scale controllable distributed generation to the grid, where the term "controllable" refers to the ability of the utility to either dispatch or curtail the delivery of electricity to the grid. The traditional interconnection process assumes that the distribution utility must invest in distribution facilities necessary to accommodate the maximum capacity of the new resource. The customer is required to finance the incremental grid costs attributable to their interconnection and as a result, the distributed generation opportunity may no longer be economic. In contrast, the FICS establishes a flexible process for the project developer and utility to come to an agreement that maintains the viability and benefits of the project. For example, the customer may agree to have the utility dispatch the generation at something less than the maximum capacity or taken off-line by the utility when the local grid network is constrained, thus significantly reducing the incremental grid costs that they would otherwise be responsible for. The FICS concept has been proven by ScottishPower, an affiliate of Iberdrola, S.A. (our ultimate parent company), and we are looking to build upon this valuable experience.[4]

The solution allows the Companies to leverage the distribution system to support a "platform as a service" business model. FICS can accelerate and expand the benefits of distributed generation to large customers and support the achievement of certain core REV policy goals, including an increase in DG connections, lower electricity costs, and an improved environment. We anticipate that DER developers that concentrate on the large DG market will view the FICS as a reason to direct more resources the New York market relative to other markets that they may be pursuing.[5]

The FICS proposal also directly addresses several critical considerations set forth by the Commission and Staff governing the development and implementation of demonstration projects. First, FICS was developed through a partnership with Smarter Grid Solutions, an entity that has developed and tested similar approaches in Europe. FICS also aligns the interests of the

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[4] ScottishPower has four generator sites deployed with Smarter Grid Solutions. NYSEG and RG&E will leverage ScottishPower's experience to support our demonstration project. The average DG project curtailment at times of distribution system peak has been approximately 5% annually in the UK experience.

[5] This demonstration project focuses on large DG projects. It complements a parallel effort to facilitate the interconnection of smaller DG projects through the development of a web-based interconnection portal.

utility, customers, and DG developers because they will work together to identify the best interconnection solution given the specific facts and circumstances. Finally, FICS will produce new revenue streams to the utility in the form of fees based on the value to the grid of the DG resource.

2. CEC

The CEC proposal presents an innovative and comprehensive approach to community planning and procurement of DER that can be scalable and replicable. A cornerstone of the Commission's REV vision is the development of an integrated planning process that considers DER as an alternative to traditional wires-based distribution solutions. The CEC process will consist of three phases: (1) integrated energy planning, (2) customer solicitation, and (3) market solicitation. Through the three phases, we will work with a market coordinator partner that we engage to 1) identify market opportunities in the planning phase, 2) qualify and aggregate interested customers in the customer solicitation phase and 3) provide an aggregated market opportunity to DER providers who will work directly with customers to finalize sales. The costs of connecting customers and third parties can be reduced through pre-qualification of participants and aggregation of market opportunities. We expect these efficiencies to lead to successful delivery of community sustainability goals at lower costs.

The CEC process will include collaboration between NYSEG and the community in order to create alignment with community energy goals. We will utilize our customer and system data to identify optimal customer candidates for product offerings at locations with specific system features (i.e., distribution system constraints, etc.). For the demonstration period, the coordinating market partner will help facilitate and manage the CEC process.

The CEC proposal also directly addresses several considerations set forth by the Commission and Staff governing the development and implementation of demonstration projects. NYSEG is currently working with potential service providers to identify the coordinating partner for the program and the services providers that will initially participate in this project. Moreover, the entire premise of CEC is that DER deployment can best be implemented through a process involving cooperation among customers, communities and key stakeholders (Cornell, the city of Ithaca, Tompkins County and other community members). Finally, this demonstration project is designed to be self-funding with a portion of any cost savings going to customers, the community, the utility and the coordinating partner.

3. The Energy Marketplace

The Energy Marketplace is an ecommerce website that will enable consumers and DER providers to directly interact. It will provide information to help customers understand and manage their energy usage and it provides an efficient platform to connect DER providers with potential customers. The marketplace also provides us more opportunities to develop targeted "micro" community sites to support community energy initiatives and acts as a support platform to implement Energy Efficiency initiatives for Non-Wires Alternatives. RG&E will leverage its

strong customer relationships and multiple communications channels to promote the Energy Marketplace which will expand its service offerings and energy solutions. Energy Marketplace provides a clear path to the market for DER providers. Our partner, Simple Energy has engaged multiple manufacturing and fulfillment partners in order to provide comprehensive product offerings to customers. The platform can support expansion of the product portfolio to include a diverse range of providers. We will collaborate with Simple Energy will to develop a customized product/service offering targeted to meet customer needs.

As the program evolves, we will update and add services including sharing local market knowledge with DER providers to tailor products and services to attract RG&E customers. Energy Marketplace will allow customers to browse, compare, and purchase energy-wise offerings online with the opportunity for point-of-sale rebates and incentive redemptions under a known, energy-related brand they trust. This proposal will also test a new business model based on revenues being generated from an agreed-upon share of Energy Marketplace margins.

Currently, there is no centralized and seamless platform available for customers to assess and compare various DER options. For example, the provision of energy efficiency services are administered and funded by electric utilities and the New York State Energy Research and Development Authority ("NYSERDA"). In aggregate, there over 15 individual energy efficiency programs available to customers in the Company's territory almost all of which are offered on a stand-alone basis. A common platform can provide customers with the opportunity to compare energy efficiency programs and take action in one place. As REV is implemented and more DER options become available, the lack of a seamless platform would become a major barrier to DER penetration. The Energy Marketplace proposal addresses this concern by establishing a platform that will enable customers and DER providers to directly interact.

The Energy Marketplace proposal addresses several considerations set forth by the Commission and Staff governing the development and implementation of demonstration projects. First, the Energy Marketplace is being developed with a partner, Simple Energy, a business specializing in digital customer engagement programs. Simple Energy will deliver the Energy Marketplace as a turnkey solution. Second, the Energy Marketplace is eminently scalable. Finally, this demonstration project could produce revenue streams to the utility in the form of a shared return of revenue.

Regulatory Considerations

This filing raises several regulatory matters related to the recovery of incremental demonstration project costs, the treatment of new revenue streams derived from each demonstration project, and the need for certain other regulatory approvals to progress the projects in a timely manner.

The Track 1 Order: (1) permitted electric utilities to defer the impact of incremental demonstration project costs; (2) provided the opportunity to request recovery of such costs; and (3) established a cap on the amount of demonstration project costs that could be collected in

rates[6]. The estimated costs of the three demonstration projects for 2015 and 2016 are summarized below:

Demonstration Project Costs

Time Period: H2-2015 through 2016

Project	Initial Capex	Initial O&M	Total Cost
CEAPP	$0	$353,790	$353,790
Marketplace	$0	$419,000	$419,000
FICS	$1,250,000	$172,500	$1,422,500
Total	**$1,250,000**	**$945,290**	**$2,195,290**

The combined total cost of about $2.2 million is well below the $28.7 million demonstration project cost cap established by the Commission in the Track 1 Order for NYSEG and RG&E. The Companies are planning to request recovery of these costs (net of a portion of new revenues) as part of the August 5, 2015 update filings in their pending rate cases.

Both the Commission and Staff have placed great emphasis on the development of demonstration projects that produce new utility revenue streams. Each of the three proposals presented herein are designed to meet this objective in different ways. The Energy Marketplace will include a sharing of profits between partners, FICS will include an annual fee to each interconnected generator, and CEC will include a referral fee and a sharing of proceeds from purchased power agreements. Each of these approaches is discussed in more detail in the project proposals attached to this letter.

Finally, Staff has requested that we identify other regulatory actions that are required to implement the demonstration projects.[7] At this point in time we see two regulatory filings related to tariffs and interconnection rules. We are currently evaluating the type of tariffs that are required to advance each of our proposals and we will make all necessary tariff filings well before the projects actually become operative. Finally it appears likely that we will have to seek certain exemptions from current standard interconnection requirements in order to implement FICS.

Conclusion

The Companies' three demonstration project proposals are included with this letter. It is our understanding that Staff working with AT Kearney will review our proposals and contact us within the next few weeks regarding the proposal's status. We think our proposals are fully consistent with REV principles and meet key demonstration project criteria set forth by the

[6] Id., at 113.

[7] Letter from Tammy Mitchell and Marco Padula, June 24, 2015.

Commission in its Track 1 Order. We look forward to hearing from Staff in the near future. If you have any questions or concern, please contact me.

Sincerely,

Laney Brown
Director – Smart Grid
Planning and Programs

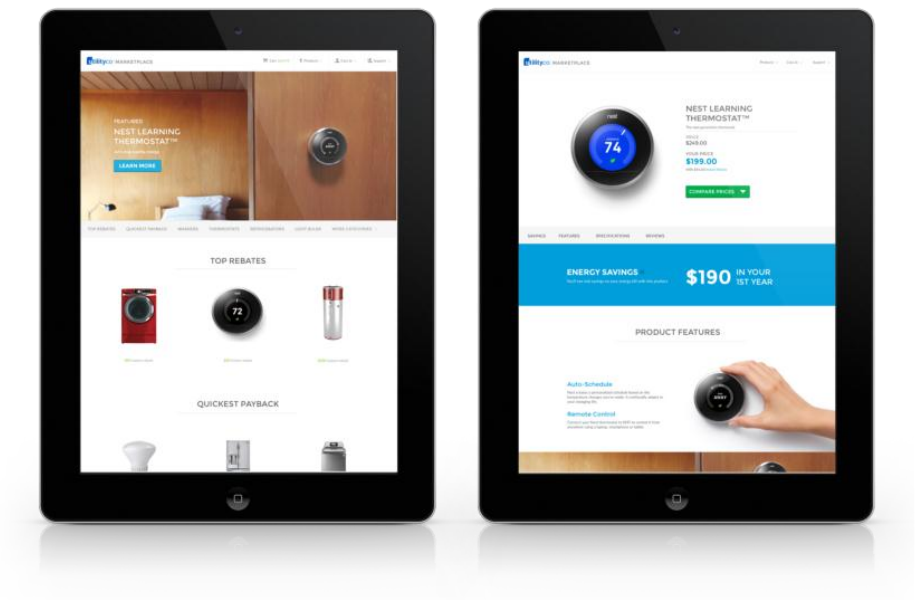
Iberdrola USA Energy Marketplace

1. Executive Summary

Rochester Gas & Electric's ("RG&E" or the "Company") Energy Marketplace (the "Marketplace") will provide both an innovative customer experience and a meaningful business opportunity for the Company and its partners. Our success with this proposal hinges on our direct relationships with customers, as well as established revenue goals. The Marketplace will provide an opportunity to expand the relationship with our customers to provide more comprehensive energy-based solutions. The Marketplace will be RG&E-branded and will offer an ecommerce site where customers can purchase energy-related products and services that leverage our customer interaction focus. We will take advantage of our strong customer relationships and multiple communications channels to promote the Marketplace which will, in turn, expand our service offerings and energy solutions. The Marketplace provides information to help customers understand and manage their energy usage and it provides an efficient platform to connect distributed energy resources (DER) providers with potential customers. The marketplace also provides us more opportunities to develop targeted "micro" community sites to support community energy initiatives as well as a support platform to implement Energy Efficiency initiatives for Non-Wires Alternatives. It can become the foundation of a platform for future initiatives – including integration with other REV initiatives, such as the Energy Smart Community, and creating a more efficient, animated market with engaged customers and robust market access for DER providers.

The figure below illustrates the Energy Marketplace Platform interface, which provides a user-friendly energy solution experience, further integrating customers into engaging in energy actions.

Figure 1: Energy Marketplace Platform

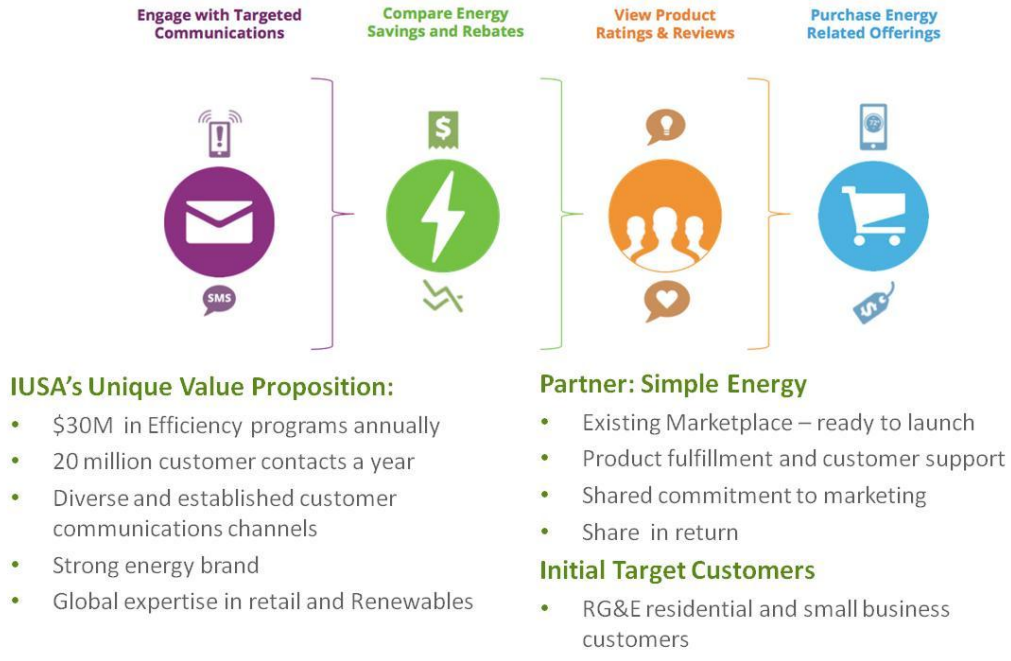


As the program evolves, we will update and add services including sharing local market knowledge with DER providers to tailor products and services to attract RG&E customers. The Marketplace will allow customers to browse, compare, and purchase energy-wise offerings online with the opportunity for point-of-sale rebates and incentive redemptions under a known, energy-related

brand they trust. We will test the new business model with revenue generated from an agreed-upon share of Marketplace margins. The Marketplace will evolve over time based on actual experience and demonstration project evaluation recommendations and together they will contribute to the development of Marketplace 2.0.

RG&E manages direct relationships with its customers and facilitates millions of customer touch points a year. In addition, we have well established marketing channels to facilitate Marketplace promotions, customer information to support targeted recommendations and a strong understanding of what drives them to action. Because of our customer relationships, brand recognition and a significant volume of customer touch points, we are uniquely positioned to offer a successful digital Marketplace to our customers. In addition, we plan to adopt and test a number of new marketing practices to move customers along an engagement path based on our partner's (Simple Energy) data-driven targeted marketing strategies to enable customers to identify the most suitable products and services.

Figure 2: Market Opportunities and Target Customers



Simple Energy will deliver the Energy Marketplace as a turnkey solution in partnership with Iberdrola USA. At project launch, the Marketplace will be a stand-alone ecommerce site that extends the RG&E brand to various product offerings. We are currently collaborating with Simple Energy to finalize integration and launch plans, as well as develop ongoing marketing campaigns, in an effort to enhance the prospects for an efficient deployment and enhanced customer experience.

The Marketplace provides a clear path to the market for DER providers. Simple Energy has engaged multiple manufacturing and fulfillment partners to provide a comprehensive product offering to customers. The platform will support expansion of the product portfolio to include a diverse range of providers. RG&E and Simple Energy will collaborate on developing a customized product/service

offering targeted to meet customer needs. Certain products are directly purchased through Marketplace checkout, while others – particularly larger products that require professional installation –generate a referral to licensed installers.

2. Business Model(s) Overview

a. Problem (the Market Opportunity)

Energy Marketplace will

- ***leverage our communication assets;***
- ***support customer engagement;***
- ***create a clear path to market: and***
- ***provide a growth platform for NY and beyond***

RG&E offers energy-saving information, products, and programs, but is not always able to provide sufficient motivations and/or comprehensive solutions for customers to transact within a utility-centered experience. Moreover, while some customers may purchase energy products and services from third parties based on information provided by RG&E, our ability to track utility-driven purchases is limited. The lack of a comprehensive energy-solution experience represents a missed opportunity for RG&E and its customers that increases costs to all stakeholders (customers, utilities, regulators, the grid, and third parties) by not capturing cost-effective market-driven solutions through customer purchases. In the current market landscape, significant sums are spent on piecemeal DER marketing campaigns to connect to customers that may have limited effect.

b. Solution (REV Demonstration Project Idea)

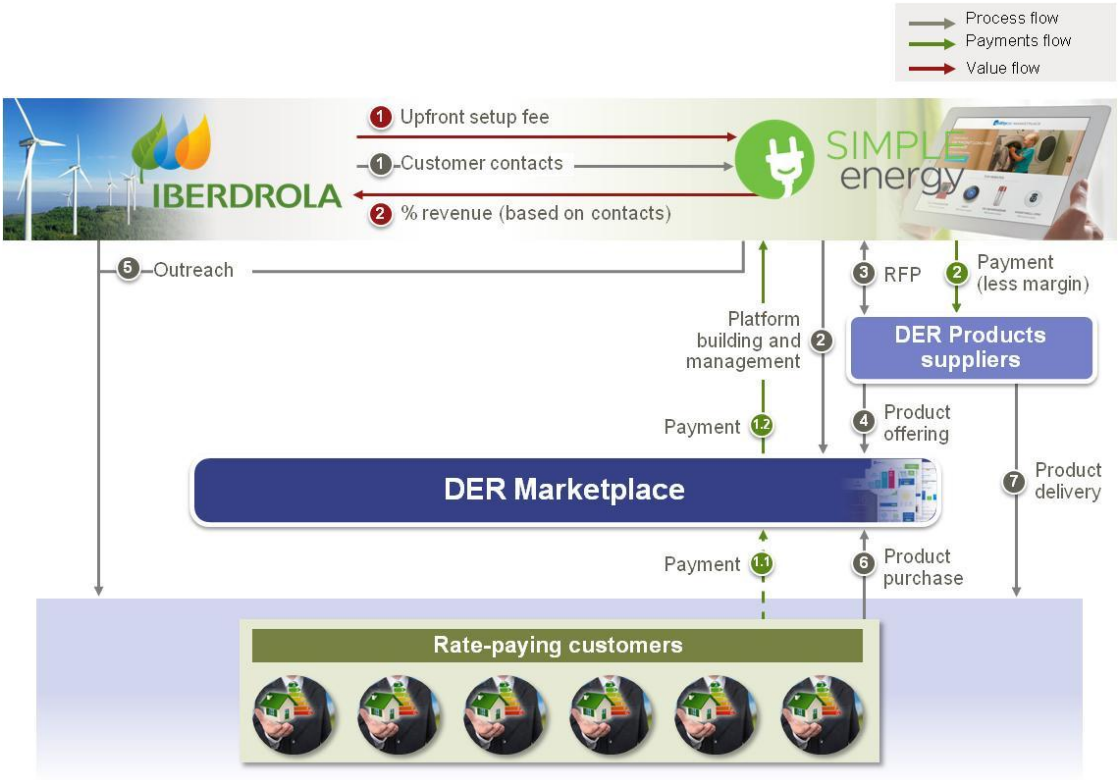
The Marketplace provides a simple shopping experience that drives transactions, improves customer satisfaction, and delivers more comprehensive energy solutions for our customers. The project also provides a way to make use of under-utilized assets. The Marketplace provides a single platform to customize, engage, and grow the market, while better connecting with customers on a range of DER offerings through targeted marketing and tailored content. The transactional structure of the Marketplace enables us to provide a comprehensive set of energy-related experiences for customers. It can be easily updated and adapted to fit our evolving customer programs including the opportunity to support a customized micro-site for a community, test the effectiveness of new energy efficiency programs or geo-target incentives to support non-wires alternatives solutions. For example, RG&E could offer customized incentives for customers that are located on circuits that experience system constraints. By incentivizing products that could help specific customers reduce demand, the marketplace could support optimized DER. In expanding the scope of offers and providing more comprehensive offerings, the Company earns brand affinity as its customers' trusted energy advisor and source of solutions.

<u>Energy Marketplace Business Model</u>

The figure below illustrates the Marketplace business model and value flow, illustrating that revenue will be generated through a percent of margin. As shown in the diagram, we will pay for setup fees for the Marketplace platform, and receive a share of revenues. Simple Energy will set up the platform, including product and service offerings as well as DER offerings. Customers then make payments through the Simple Energy website, which will be apportioned among the DER service provider, Simple Energy, and RG&E. Simple Energy will become a key marketing partner, with its software enabling customers to access assets directly, rather than only through us. The platform's initial success relies largely on our customer relationships. Thus, the platform must ensure that our

RG&E brand is not compromised. In an effort to ensure this, we plan to offer an "Amazon" style review, offering customers the opportunity to rate products offered, both as a way to give customers greater control, as well as to show customers that product offerings are not endorsed by us.

Figure 3: Energy Marketplace Value Flow



c. Hypothesis Being Tested

The Marketplace aims to address the following hypotheses:

1. Customers will engage and take action to purchase energy-related products with targeted recommendations and incentives.
2. The Marketplace revenue growth opportunity supports the investment.
3. Optimized marketing efforts with effective customer segmentation and targeted messages will drive sales.
4. We will leverage demonstration project lessons learned for recommendations for the next version of the Marketplace.

d. Commission's REV Demonstration Criteria

The table below provides further details on how the Marketplace addresses selected REV Demonstration criteria.

Table 1: Key REV Demonstration Principles

Player	Relevant Principles
Third Party Participation / Partnerships	• Simple Energy is providing a turnkey ecommerce solution, customized to support products and services tailored as appropriate to meet RG&E*'s* customer needs. • The Simple Energy/RG&E partnership includes a shared revenue model to support a collaborative promotion of the Marketplace. • The Marketplace provides an access point for a series of select third-party product and service providers.
New Utility Business Models	• RG&E will receive a share of the margin of all sales, referral or advertising profits from the Marketplace. • The Marketplace provides a structure for future growth initiatives, ranging from community-targeted sites to a platform for targeted non-wires alternative solutions to financed energy management, storage, and generation.
Customer / Community Engagement	• The Marketplace will be promoted to all RG&E electric customers, with an initial focus on customers who have participated in or indicated a desire to participate in energy efficiency programs or digitally engage, i.e., ebill customers. • The entire customer path from engagement to purchase on the Marketplace can test which messages motivate customers. • The CEC demonstration project, which relies on strong community outreach, may also leverage the Marketplace. • The demonstration project provides a more comprehensive solution for customers to engage in purchasing energy services.
Identification of Economic Value	• The Marketplace provides a business opportunity for Simple Energy as a partner in the demonstration project. In receiving a share of revenue, Simple Energy is incentivized to ensure availability of products/services, and to support additional marketing. RG&E will also receive a share of revenue. • Third party product and service providers receive a streamlined path to market and a cost-effective customer acquisition channel for their DER offers. • Customers will have information and access to products/services that will help them manage their energy consumption and associated bills. • The foundation will be laid for a transactional relationship with customers that can provide a framework for future economic value, including cost avoidance/deferral, a clear path to market for DER providers, and new incentive models.

Player (Cont.)	Relevant Principles
Pricing and Rate Design	• While not in the immediate deployment phase, there is a potential for evolution of the offerings, including financing and integration into rate design (particularly through non-wires alternatives (NWAs) and/or Energy Smart Communities).
Scalability	• The Marketplace is highly scalable in many ways, including expansion of products and services aimed to provide more robust grid and demand management assets. • The Marketplace can be expanded and promoted to Iberdrola USA's ("IUSA") entire customer base. (both inside and outside of New York) • The Marketplace can be specifically targeted to communities or geo-targeted to support NWAs. • The Marketplace can support and promote other programs, such as distribution-level demand response efforts. • The Marketplace can support micro sites targeted to communities as envisioned in our Energy Smart Community proposal
Market Rules and Standards	• An RG&E-branded Marketplace will test the premise that customers have a desire to buy energy-related products from their utility. • The Marketplace develops and tests a model for a utility to earn a share of revenue on the sale of third-party products and services to its customers. • Current rules governing affiliate relationships may need to be extended to cover the Marketplace. Such rules are designed to not only protect ratepayers but also market participants from discriminatory practices and self-dealing with affiliated interests. As part of that process it may become necessary to assess whether modifications to existing standards are required to address REV-related matters. The Marketplace provides the environment to address this matter.
System Benefits	• We envision that the Marketplace can be leveraged to support system efficiencies. For example, the demonstration project could be leveraged to promote distribution-level demand response with the sale of wifi-enabled thermostats, or could be used to geo-target efficiency programs with incentives at a circuit level covering investments such as distributed generation, storage, and demand management, which may serve to defer/avoid distribution infrastructure costs.
Cost Effectiveness	• The Marketplace-generated revenues should offset portal costs.
Timeframe	• Because the site is available and turnkey, the portal can be purchased and launched this year. • RG&E will have measurable outcomes within the demonstration timeframe, including share of sales, satisfaction measurements, etc.

3. Market Attractiveness

a. Unique Value Proposition (from the following perspectives)

i. Participating Customer

All residential/small commercial customers in the RG&E service territory will be eligible to participate in the Marketplace. Having a select list of energy products from a trusted source will support customers in making smarter decisions about energy-saving actions. RG&E and Simple Energy will utilize their customer knowledge and segmentation expertise to customize recommendations and incentives to engage customers. Consumers who opt to purchase items from the Marketplace should realize associated energy savings on their monthly bills, giving them timely program results.

ii. Partner / Third Parties

Simple Energy is our proposed partner. By partnering with us, Simple Energy will have greater access to customers and customer information. The opportunity to drive more efficient energy product purchases and demonstrate a new model for market animation through third-party-utility-market participant interaction will be enhanced by customer contacts and customer information.

The proposed strategy contemplates a revenue sharing opportunity. We intend on paying the upfront setup cost. In addition, we will commit to a set volume of contacts per year. Simple Energy will provide the platform, communication templates and campaign analysis to help drive more effective marketing and engagement results. Simple Energy will also fund and implement marketing campaigns. The revenue sharing will be negotiated and will be in part based on the volume of committed RG&E contacts.

iii. Utility

Through its New York regulated utility affiliates, RG&E and New York State Electric and Gas ("NYSEG") communicate with their customers more than 20 million times a year, spending more than $30 million of customer provided funds each year on energy efficiency programs. Moreover, RG&E has strong brand recognition with its customers. This strong relationship with our customers provides an engagement platform to expand service offerings and energy solutions with the Marketplace.

We will enhance and expand our energy efficiency initiatives by promoting the Marketplace. The Marketplace will provide products and services that complement energy efficiency (EE) offerings and test opportunities for new efficiency initiatives, including market-based adoption of energy-saving products and services.

The Marketplace will allow us to establish a platform for a comprehensive set of energy-related experiences, thereby leveraging RG&E as a trusted energy advisor and solutions provider.

iv. System

The Marketplace has many potential applications, including serving as a platform for geo-targeted energy efficiency messages, and a channel for efficiency and DR products and services that support non-wires alternatives. By driving direct and indirect market penetration of energy-saving and flexible demand management solutions, RG&E will establish a launch point for market-driven customer-side system solutions.

b. Customer Segmentation and Demographics

RG&E will cross-promote the Marketplace to all residential and small commercial customers in the Rochester area (RG&E's service territory). Targeted messaging based on segmentation, demographics, interaction volume, buying propensity, and feedback will be leveraged and regularly iterated to maximize targeted value. For example, targeted marketing provides significant opportunities for low-income homes, which would directly benefit from the Marketplace's energy efficiency programs in the form of lower energy bills. In addition, the streamlined nature of the Marketplace's platform makes it easier for customers to access integrated energy solution.

The eligible population for the marketplace initially is the full RG&E service territory with potential expansion to NYSEG's service territory. In targeting the marketing, it is critical to focus on those customers with a propensity to buy through the right channel at the right time. Initial targeting includes:

- Customers who have participated in EE programs
- Customers that have signed up for a digital connection (e-bill, MyAccount) with RG&E
- Higher energy consumers
- Customers in areas with complementary needs (e.g. DLM targets or infrastructure constraints)

We will explore expanding the service offering to the proposed Energy Smart Community in Ithaca/Tompkins County (NYSEG territory). The Marketplace could also be used to expand its demand response programs and to geo-target efficiency initiatives to defer/avoid a traditional infrastructure build-out.

c. Channels

RG&E will leverage all of its marketing channels to promote the Marketplace, including bill inserts, efficiency programs, websites (efficiency and RG&E), and interactive voice response (IVR) email campaigns. Through our billing channel alone, we have 3.8 million contacts with customers a year. By using these channels for the Marketplace promotions, we can leverage its significant customer contacts and channels for little to no incremental cost. In addition, Simple Energy can promote the program through data-driven and targeted content, including via email campaigns, retargeting ads/emails (i.e., follow-up email or web advertisements to those that have looked at products), earned media opportunities, SEO/SEM advertisements, direct mail, and social media. The Simple Energy platform provides more touch points to gauge customer behavior and preferences, allowing

RG&E and Simple Energy to provide better messaging to customers and increase efficiencies through data acquisition. The account-level data and usage density information allows for targeted campaigns to provide tailored communications, which allows the platform to connect the right customer to the right product, while enhancing the "pay-per-click" nature of the revenue model.

Table 2: Communication Channels

Communication Channels	# of 2015 Customer Contacts
Promotional Emails	5,296,437
Pay Per Click Marketing	833,333
Call Center - Call Promotions	327,853
Bill Insert / Insert Marketing	1,014,900
Other touch points	1,000,000
Total Contacts per Year	**8,472,524**

d. Ability to Scale

At initial launch, the Marketplace will be targeted to RG&E' customers. The Marketplace has significant potential to be expanded including:

1. Scale to all IUSA: The portal could be launched to all of IUSA's New York customers (1.8 million). Involving regional service providers encourages scalable growth and potentially beyond to other IUSA operating companies.
2. Scale to the market: The portal can add additional products and services.
3. Revenue channels: The portal could support new advertising and fee-based revenue channels.
4. Service offerings: Enhancing products with ongoing service offerings (ranging from smaller scale service to storage, generation, electric vehicle (EV) infrastructure, and more).
5. DER optimization: The portal could be used to support DR and non-wires alternatives (NWA) programs.
6. Community support: Micro-sites can be developed to specifically target and support a community in line with the Community initiatives.

4. Demonstration Plan

This section discusses metrics to assess the success of the Marketplace demonstration project, and includes a timeline on the project rollout, as well as key milestones.

a. Metrics for Success (now and future)

We have identified five key metrics to be used to evaluate the success of the Marketplace demonstration project.

1. Actual to Forecasted Revenue: comparison of the actual revenues generated from the project to the forecasted revenues;
2. Customer Awareness: measured by our ongoing customer satisfaction survey;
3. Customer Satisfaction: measured by our ongoing customer satisfaction survey;
4. Response Rates: response rates and sales per campaign to support continued refinement of messaging and segmentation, measured through open rate, click rate, site traffic, and conversion rate; and
5. Efficiency Program Impact: measured by adoption trends of existing efficiency programs.

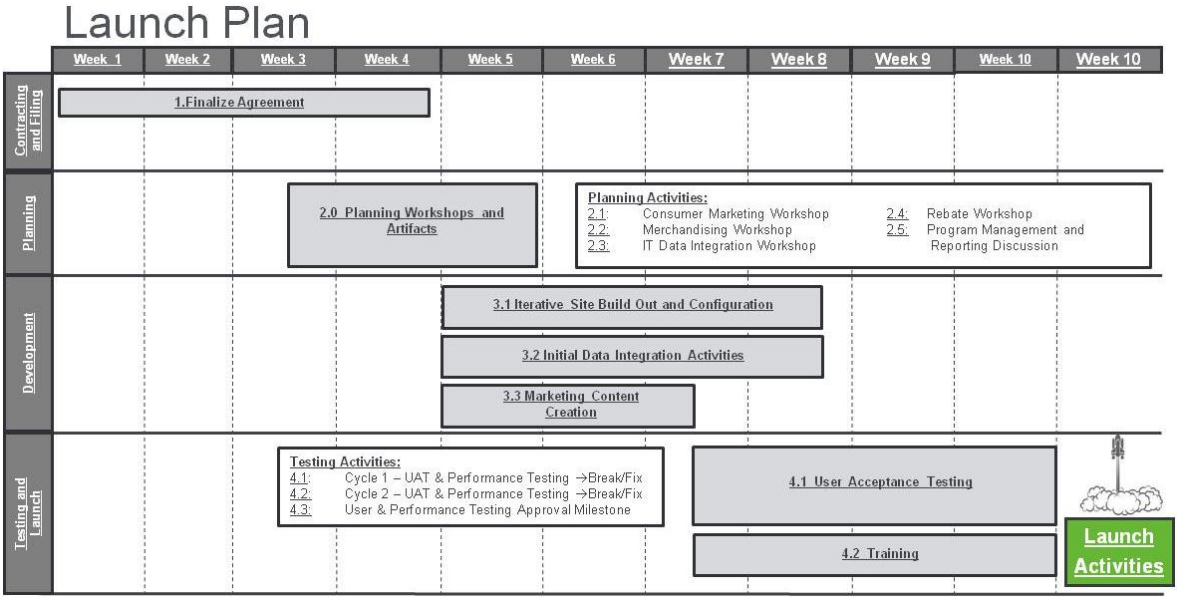
b. Timelines, Milestones and Data Collection

The Marketplace demonstration project will be implemented in three key phases, as discussed further below.

1. Implementation Phase: project will be implemented.
2. Preliminary High-Level Marketing Campaign Plan: project will incorporate marketing efforts to expand program.
3. Evaluation Phase: RG&E will evaluate the energy savings, revenue, and other impacts of the demonstration project.

Implementation Phase: The site is an existing 'white-label' site, and can be branded and launched rapidly. With project approval, the site could be launched within three months. The two plans include pre- and post-launch activity.

Figure 4: Energy Marketplace Launch Plan

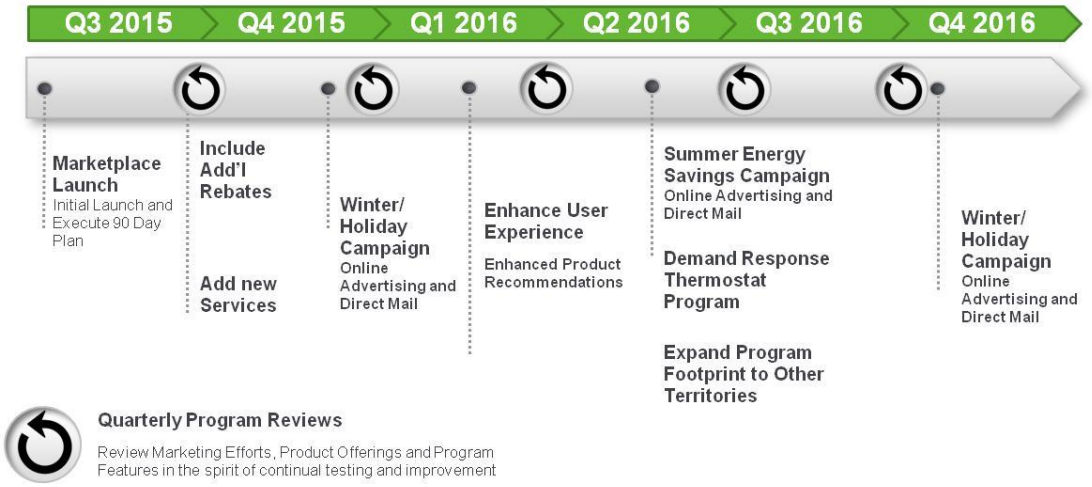


Source: Iberdrola

i. Implementation Phase

Preliminary High-Level Marketing Campaign Plan: A final plan will be developed as part of launch plans, as shown in the figure below. A full marketing plan will be developed as part of the pre-launch plan, but it will be dynamic with quarterly program reviews to determine effectiveness. Messages, campaigns and promotions will be updated based on lessons learned from the preceding quarter.

Figure 5: Energy Marketplace Preliminary Plan



ii. Evaluation Phase

Evaluation Phase: A key deliverable of the demonstration project will be an evaluation with specific recommendations that identify enhancements to Energy Marketplace. At scale, the Marketplace could be deployed to all of IUSA's customers and would be fully integrated into our website to support a seamless interface between customer's usage and billing information. We would also expect that as AMI meters would be deployed, interval data will increase the ability to provide targeted messages about products and services that may be most effective in managing customer's usage and engaging the customer on their energy. The demonstration recommendations will include lessons learned from the demonstration project as well as recommendations based on the market research and campaign analysis conducting during the demonstration project. The recommendations could include feedback on the following:

1. Approach to engaging market partners
2. Approach to engaging customers
3. Approach to products and services set(s)
4. Effective segmentation strategies
5. Future plans for the Marketplace's development, launch and promotion
6. Integration recommendations

c. Participation

i. Target Population, Sample Size, Control Group

The eligible population for the marketplace initially is the full RG&E service territory with potential expansion to NYSEG territory. In targeting marketing, it is critical to focus on those with a propensity to buy through the right channel at the right time. Initial targeting includes:

- Customers who have participated in EE programs
- Customers that have signed up for a digital connection (e-bill, MyAccount) with RGE
- Higher energy consumers
- Customers in areas with complementary needs (e.g. DLM targets or infrastructure constraints)

Ongoing A/B testing across the Marketplace experience (marketing channels and on-platform), will support refining subject lines, imagery, messaging, and delivery cadence based on understanding of user behavior. This testing builds on a robust content library already developed by Simple Energy that will be reviewed and updated regularly as data demonstrates effectiveness of driving RG&E customers to the Marketplace and through the sales funnel to completing transactions.

Leveraging utility data helps to support targeting and effectiveness. By utilizing this data to inform segmentation and messaging, we can build upon a strong foundation for the Marketplace. Other

third party data such as age of home, size of home, income or socioeconomic information, owner vs. renter could be used to help shape targeting, messaging, and offers to be tailored to customer interests.

ii. Third-Party Partner(s) – specifics of agreement(s)

As our partner on the Marketplace, Simple Energy will be providing a fully branded SaaS platform including digital and outbound messaging capabilities. This includes product merchandising and information online with an integrated transactional capability including processing transactions and instant rebates. In addition, Simple Energy will provide product fulfillment for existing and new partners. Fulfillment includes drop shipping of the product or a referral/lead generation depending upon the product category (e.g. a smart thermostat is shipped to the customer; HVAC service is referred to the service provider).

Simple Energy also provides customer support in four ways:

- On-site chat functionality
- Email-based customer support
- Training for the RG&E call center
- Branded customer support line (direct dial and/or as Tier 2 to support RG&E call center)

iii. Utility Resources and Capabilities

Utility resources will include:

- Project lead and subject matter expert in portal development
- Subject matter expert and support from IT
- Subject matter expert and support from Marketing and market research
- Subject matter expert and support from Energy Efficiency Programs
- Subject matter expert and support from Customer Service

d. Customer Outreach / Community Engagement

With 3.8 million touch points from electricity bills alone, the Company has significant opportunity to leverage its existing marketing channels to all of its customers, and will build upon its existing deep relationships with community partners and providers.

i. Outreach to Affected Communities

The initiative will target all RG&E customers leveraging both existing and new communication channels. We have an established relationship with our customers and the Marketplace will expand the engagement with our customers.

ii. Motivating Customers / Communities

We will leverage our strong customer relationships and multiple communications channels to promote the Marketplace which will result in an expansion of our service offerings and energy solutions. The Marketplace provides information to help customers understand and manage their energy usage and it provides an efficient platform to connect distributed energy resources (DER) providers with potential customers.

e. Conditions / Barriers

A concern that has been expressed by some potential REV market participants relates to the possibility of unregulated utility affiliates (now or in the future) receiving preferential treatment in REV markets. RG&E currently operates under a detailed set of requirements governing affiliate relationships.[1] These rules which are designed to prevent discriminatory market behavior and self-dealing activities govern a wide variety of activities including:

- Communication by utility employees to customers regarding unregulated affiliates;
- Communications by unregulated affiliates to customers regarding regulated operations;
- The dissemination by the utility of customer information to other parties;
- The disclosure of utility information to affiliates;
- The provision and pricing of services by the utility to affiliates;
- The application of tariffs to affiliates and third parties;
- Cost allocations;
- Asset transfers; and
- Corporate governance.

While it appears that these requirements provide significant protections to ratepayers and companies competing with unregulated affiliates of IUSA[2], it may become necessary to slightly modify the rules in order to address new developments (the REV market structure and new market participants). For example, the rules might need to be extended to cover DER providers and the treatment of information exchanged on the Marketplace platform.

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[1] STANDARDS PERTAINING TO AFFILIATES AND THE PROVISION OF INFORMATION was approved by the Commission in Case 07-M-0906.

[2] It should be noted that in the initial phase of the Energy Marketplace demonstration the Company will not include any affiliates as vendors.

i. Market Rules and Standards

The Marketplace needs to have defined rules of engagement for vendors. Customers who navigate to the Marketplace will be required to consent to future contact (or have already consented through previous interactions) and be aware of applicable privacy policies and terms of use. Utility affiliates will be subject to the affiliate relationship requirements noted above but should be able to compete on equal terms with third parties.

ii. Consumer Protections

RG&E will be able to advertise the Marketplace to all its customers in our service territory. As we work with Simple Energy to develop new and innovative ways to share market information about energy products, vendors should have the ability to communicate directly with customers. The Marketplace communications will have a clear and simple way for consumers to opt out of future communications. All parties will agree to provide clear terms and conditions related to the Marketplace. RG&E will be subject to the affiliate relationship requirements noted above to prevent behavior favoring any unregulated affiliate.

iii. Channel or Market Challenges

At present, the average consumer rarely considers opportunities to engage or change their energy purchases. However, by deploying the Marketplace we hope to activate the next generation of "prosumers" and active energy consumers.

f. Third-Party Partner(s)

The following table includes the RG&E and Simple Energy designated activities and roles.

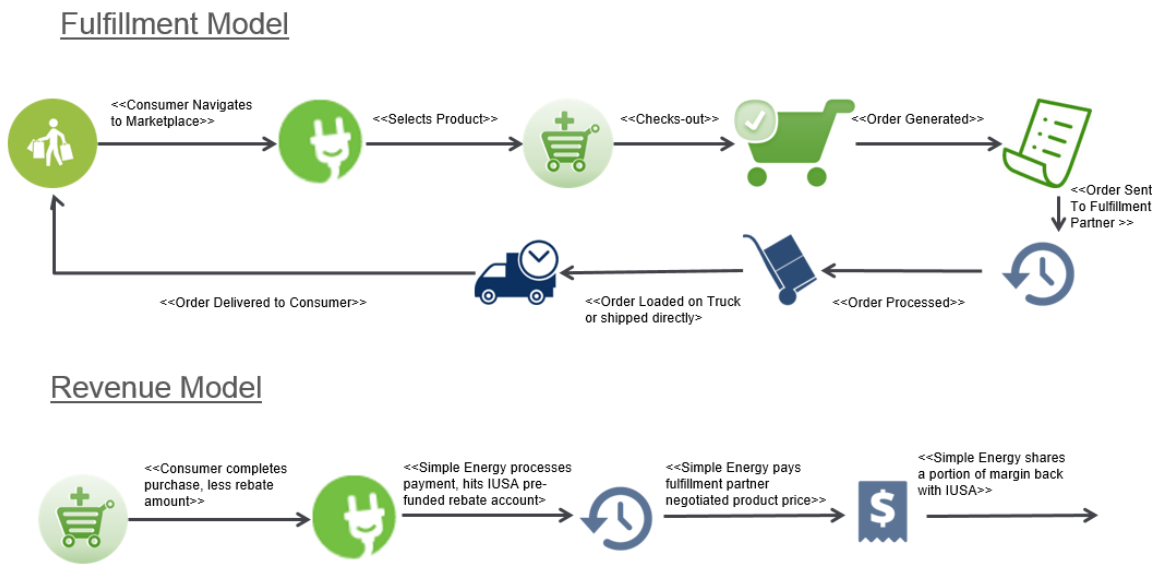
Table 3: Planning Activities and Roles

Related Task	Category	Activity	Simple Energy	IUSA
2	Planning	Program Management and Design Workshop	Lead	Support
2	Planning	Create Project Charter	Lead	Support
2	Planning	Create Detailed Launch Plan	Shared	Shared
2	Planning	Create Ongoing Post-launch Roadmap	Shared	Shared
2	Planning	Create Training Materials	Lead	
2	Planning	Create Reporting Templates	Lead	Support
2	Planning	Create Test Plan	Lead	Support
2	Planning	Planning Complete Milestone	Shared	Shared
2	Merchandising	Conduct Merchandising Workshop	Lead	Support
2	Merchandising	Generate Product listing	Lead	Support
3.1	Site Buildout and Configuration	Deploy Site Infrastructure and Web Application	Lead	
3.1	Site Buildout and Configuration	Configure Site, Add Content and Products	Lead	
3.1	Site Buildout and Configuraiton	Configure Site Rebate Content and Process	Lead	
3.2	IT	IT Workshop	Lead	Support
3.2	IT	Develop Interface Agreement and Rebate Reconciliation Process	Lead	Support
3.2	IT	Provide Initial Launch Data feeds, if applicable		Lead
3.2	IT	Consume Initial Launch Data feeds, if applicable	Lead	
3.3	Marketing	Marketing Workshop	Lead	Support
3.3	Marketing	Develop Marketing Strategy	Shared	Shared
3.3	Marketing	Develop 90 Day Marketing Plan	Shared	Shared
4.1	Launch	Execute Test Plan	Shared	Shared
4.2	Launch	Conduct Training Workshops with Customer Service	Lead	Support
4.3	Launch	Pre-launch activities	Shared	Shared
5	Launch	Execute Marketing Plan	Shared	Shared
6	Ongoing Program Execution	2015 Q3 Review - Review Program Success, Refine Marketing Plan and Roadmap	Shared	Shared
6	Ongoing Program Execution	2015 Q4 Review - Review Program Success, Refine Marketing Plan and Roadmap	Shared	Shared
6	Ongoing Program Execution	2016 Q1 Review - Review Program Success, Refine Marketing Plan and Roadmap	Shared	Shared
6	Ongoing Program Execution	2016 Q2 Review - Review Program Success, Refine Marketing Plan and Roadmap	Shared	Shared
6	Ongoing Program Execution	2016 Q3 Review - Review Program Success, Refine Marketing Plan and Roadmap	Shared	Shared
6	Ongoing Program Execution	2016 Q4 Review - Review Program Success, Refine Marketing Plan and Roadmap	Shared	Shared

5. Financial Elements / Revenue Model

The figure below shows the projected Marketplace fulfillment and transaction flows. Regarding fulfillment, customers navigate to the Marketplace website, and order energy savings products and services. The orders are then sent to fulfillment partners, who process the orders and deliver to customers.

Figure 6: Energy Marketplace Transaction Flow



Source: Simple Energy

Similarly, the revenue model begins with customers making purchases (less any applicable, approved rebates) on the Marketplace website. Simple Energy then processes payments and compensating fulfillment partners, and sharing a portion of revenue with RG&E.

Table 4: Revenue Model Results

Redacted

The financial model assumptions include the following:

- The initial demonstration area is RG&E's service territory which has approximately 320,000 residential electric customers

- The model includes the proposed product offerings :
  - LED light bulbs
  - Refrigerator
  - Thermostat
  - Washer
  - Surge Protector
- The program will use five marketing channels to offer energy related products including emails, pay-per-click social media, bill inserts, call center referrals, other

a. New Utility Revenue Streams

i. Platform Services, including Pricing Strategies

The platform services revenue is based on products and services sold through the Marketplace. Simple Energy and RG&E will test incentives as well as a number of other elements, to determine the most effective means of getting customers to transact through the Marketplace.

b. Investments

i. Details and Timing of Spending

The costs for the Marketplace set up and launch will be incurred in the second half of 2015. The Marketplace is expected to launch in 2015 with initial revenue also generated in 2015. The spending in the first year includes set up costs for Simple Energy, resource costs for the project team and incremental marketing costs for Marketplace promotion.

ii. Leveraging of Third Party Capital

The partnership with Simple Energy includes a revenue sharing provision. This shared revenue opportunity incentivizes both RG&E and Simple Energy to work collaboratively in marketing and promoting the Marketplace.

c. Returns (ROI estimates, when self sustaining etc)

The model assumes that the Marketplace will be fully rolled out to including NYSEG in 2017. The NPV of Net Income for the time period (2015-2026] is $3.2 million.

d. Cost Effectiveness

i. Benefits to Ratepayers, both Qualitative and Quantitative as Compared to the Cost

The model assumes the Marketplace will be break even in the first full year of the program (2016)

The Marketplace provides information to help customers understand and manage their energy usage and it provides an efficient platform to connect distributed energy resources (DER) providers

with potential customers. The marketplace also provides us more opportunities to develop targeted "micro" community sites to support community energy initiatives as well as a support platform to implement Energy Efficiency initiatives for Non-Wires Alternatives. It can become the foundation of a platform for future initiatives – including integration with other REV initiatives, Energy Smart Community, and creating a more efficient, animated market with engaged customers and robust market access for DER providers.

6. Reporting

a. Information to be Included in Quarterly Reports to the Commission

Quarterly reports to the Commission would include a status on project milestones, project spend actual to budget and the success metrics. In addition, quarterly reports will include lessons learned that may prove beneficial to inform stakeholders impacted by REV. These lessons learned, as well as the final metrics will also be summarized in the final evaluation report.

7. Conclusion

RG&E's Energy Marketplace is an innovative business model to provide customers with more exposure to energy issues and more control over energy use, while also allowing utilities more opportunities to engage with customers. We will collaborate with Simple Energy on developing a select product/service offering to animate the market and meet customer needs.

We are prepared to offer a successful digital the Marketplace to our customers, which will deliver numerous commercial results for us and offer market providers access to our customers. The Marketplace will allow customers to browse, compare, and purchase energy-wise offerings online with point-of-sale rebate and incentive redemptions under a known, energy-related brand they trust.

The Marketplace provides an efficient platform to connect distributed energy resources (DER) providers with potential customers. In doing so, it will provide both a unique customer experience and a meaningful business opportunity for IUSA and its customers. Finally, the Marketplace helps REV meet its goals on consumer education relating to energy conservation issues.

Flexible Interconnect Capacity Solution

1. Executive Summary

The Flexible Interconnect Capacity Solution (FICS) is a new model for connecting large-scale controllable distributed generation (DG) to the grid, where "controllable" encompasses the ability of the utility to either dispatch or curtail the delivery of electricity to the grid. The solution allows New York State Electric and Gas (NYSEG) and Rochester Gas & Electric (RG&E), collectively referred to as the "Companies" herein, to leverage the distribution system as a platform to support a "platform as a service" business model. FICS will accelerate and expand the benefits of distributed generation to large customers and support the achievement of certain core Reforming the Energy Vision (REV) policy goals, including an increase in DG connections, lower electricity costs, and an improved environment. We anticipate that distributed energy resources (DER) developers that concentrate on the large DG market will view the FICS as a reason to direct more resources to the New York market, relative to other markets they may be developing.[1] FICS will reduce energy costs for large customers and contribute to the New York economy.

The traditional interconnection process assumes that the distribution utility must invest in distribution facilities necessary to accommodate the maximum capacity of the new resource. The customer is required to finance the incremental grid costs attributable to their interconnection and as a result, the distributed generation opportunity may no longer be economic. In contrast, the FICS establishes a flexible solution for the project developer and utility to come to an agreement that maintains the viability and benefits of the project. For example, during constrained periods, the customer may agree to have the utility dispatch generation below maximum capacity or have generation taken off-line by the utility, thus significantly reducing the incremental grid costs the customer would otherwise be responsible for. The FICS concept has been proven in the United Kingdom by ScottishPower, an Iberdrola affiliate, and we are looking to build upon this valuable experience.[2]

This new "platform as a service" business model aligns the interest of customers and the utility, increases and accelerates generation that can be connected to the grid by increasing grid hosting capacity, provides economic benefits to customers, and reduces the need for incremental grid investments that are paid for by all customers. The customer will still pay for the right to connect to

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1 This demonstration project focuses on large DG projects. The project complements a parallel effort to facilitate the interconnection of smaller DG projects through the development of a web-based interconnection portal.

2 ScottishPower has four generator sites deployed with Smarter Grid Solutions. Iberdrola USA will leverage ScottishPower's experience to support our demonstration project. The UK experience indicated an average DG project curtailment of approximately 5 percent during distribution system peak periods.

the grid through this flexible solution, although the costs will be lower and potentially allow projects that might otherwise be cancelled to progress to completion. The new model creates a potential new source of revenue to the utility. In some cases, the new generation may be located in an area of the grid that helps defer traditional distribution investments paid for by all customers. The economic value to both the customer and the Companies will be reflected in a contract that represents commercial arrangements, including the percent of time annually that a customer can expect to be taken off-line. This representation will be based on modeling of the facility and local distribution network performance under forecast conditions.

This new business model and resulting benefits are made possible by automation control technologies that provide greater visibility into the operation and performance of the grid as more DG is connected. The FICS platform is built upon technologies that enable high DG deployment solutions that address power distribution problems. The technologies can evolve and scale as the network develops. The automation control technologies can work in isolation or as part of an integrated approach – providing unified smart grid system architecture that is secure, safe and reliable as an alternative to traditional grid reinforcement. This approach provides a consistent, scalable, and integrated solution to smart grid upgrades, where the number, cumulative capacity, timing, and location of future connections are uncertain.

We have entered into a partnership with Smarter Grid Solutions (SGS) to design and develop the FICS market solutions. SGS has developed and tested Active Network Management (ANM) technologies in Europe, reducing interconnection costs by up to 90 percent while doubling grid-hosting capacity. The deployed ANM scheme will actively manage various aspects of the power system using a combination of ANM platforms and applications. The overall FICS includes an ANM scheme that provides a smart grid environment designed to actively manage distribution assets in a flexible, extensible, and transparent manner. The FICS project will demonstrate the performance of these technologies on our network while also testing the new business model. If successful, the technology and new business model can be applied at scale throughout our New York service areas.

2. Business Model(s) Overview

a. Problem (the Market Opportunity)

The existing interconnection business model allows large customer-sited distributed generation to connect to the grid with the DG owner paying for the incremental investments required to ensure that the reliability and quality of service are maintained. The larger scale interconnections may require infrastructure upgrades to be performed. This model has met the system requirements, but may no longer be efficient under a REV environment, where a significant expansion of DG and other DERs is contemplated. The planning and operation of the distribution grid must change, and the interconnection process is but one element of this broader picture. The current interconnection process is more appropriate for a limited number of simultaneous requests, and would likely prove cumbersome, inefficient, and overly rigid in an environment that expects significant increases in these types of requests. The current process could result in certain projects not going forward that could have been reconfigured to work effectively and cost-efficiently on the distribution grid. For instance, over the past 12 months, roughly half of DG developers within our service territories withdrew their projects, partially due to uneconomic interconnection-related infrastructure charges. Iberdrola has validated this through its experience with several developers and discussions with the New York State Energy Research and Development Authority (NYSERDA).

The rejection of potentially viable projects limits the diversity of New York's DG resource mix and may also eliminate projects that could otherwise help efficiently minimize localized system constraints. Currently, project developers must expend significant time and resources before they know how much it will cost to connect to the grid. This adds to the risks and costs of DG development and implementation, and discourages the development of a competitive DG developer market. Moreover, in certain parts of the system, there may be limited sites that can accommodate large-scale DG projects due to capacity and other real constraints. In summary, the current interconnection process could lead to suboptimal solutions from both an economic and policy perspective.

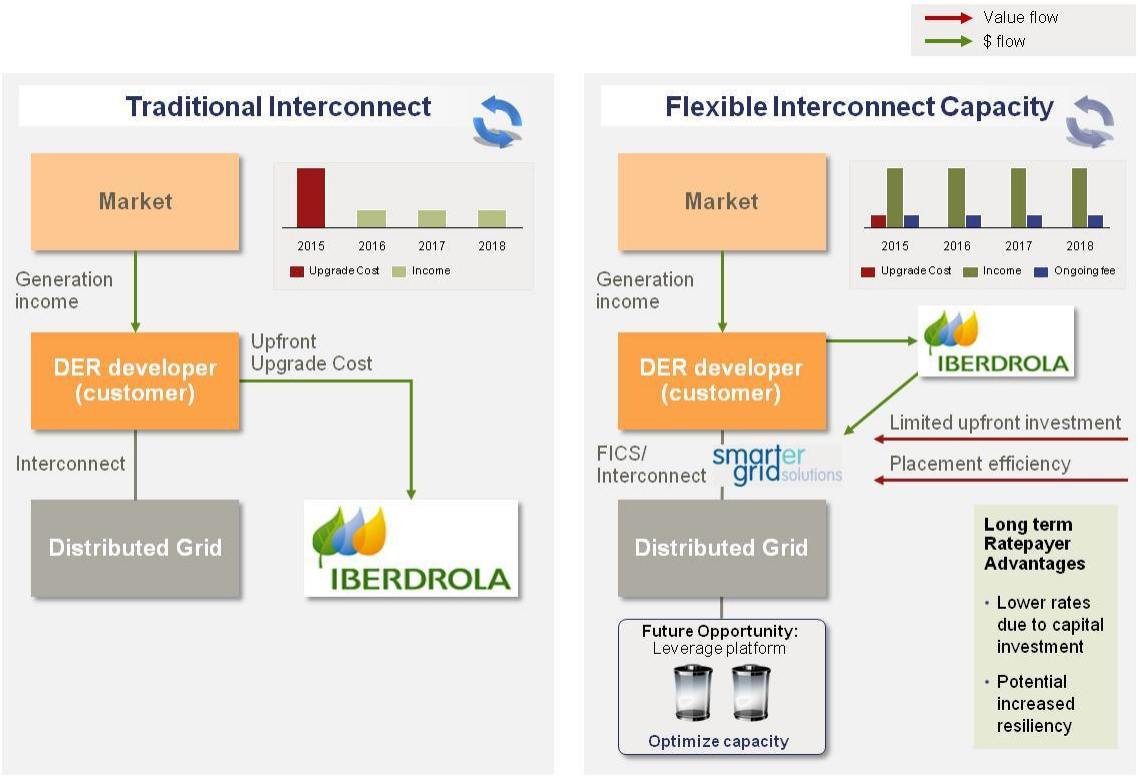
b. Solution (REV Demonstration Project Idea)

The FICS demonstration project tests a new business model, supported by automation technologies that have already been tested and are required to enable the cost-efficient growth of DG and other DERs.

<u>FICS Business Model</u>

The new business model is presented in the following diagram.

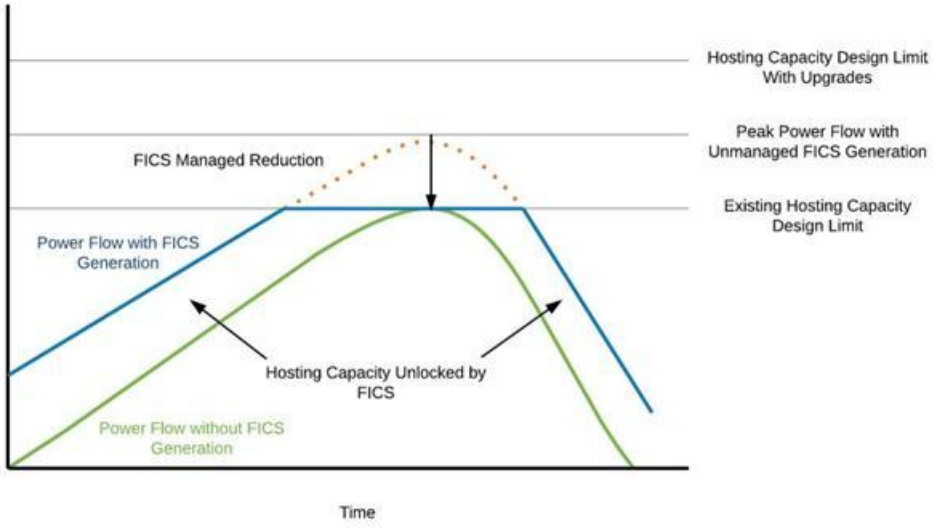
Figure 1: Interconnect Solutions Comparisons



Source: IUSA

DG developers (and their customers) will work with the electric distribution utility to identify the most efficient distribution solution. We will provide a new service to DG developers and propose to charge a fee for this "platform" service. This process will provide DG developers more interconnection solutions, improving project follow-through. In addition, DG developers will benefit from insights regarding the areas on our network where new controllable DG provides a sufficiently high value to the network. DG developers will have an opportunity to share in this value as part of the overall fee structure. While engineering studies will still be required for large projects – and may even become more complex as more DG and DERs are connected to the grid – the new business process will be more straightforward. The desired outcome is a faster, less expensive interconnection process with more DG located where it has high value to all customers, while at the same time potentially deferring or reducing overall capacity-related network investment costs.

Figure 2: FICs Compared to Traditional Interconnect Solution



In order to ensure the FICS will help support DER developer needs, we are coordinating with Solar City as an advisor and potential test advisor for the FICS demonstration project. Initial feedback from Solar City indicates that our solution will benefit DER development in the following ways:

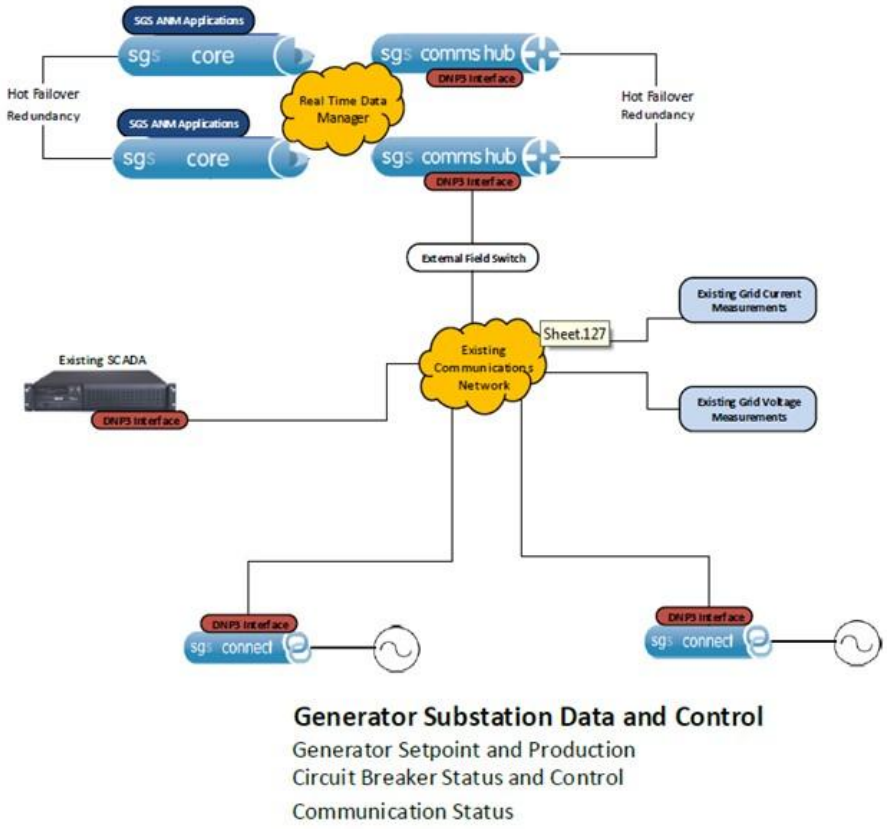
- Expediting projects to deployment and operation;
- Allowing for better planning and budgeting in project development;
- Removing prohibitive costs for larger projects and providing alternative solutions;
- Expanding hosting capacity available at each location; and
- Unlocking additional DER revenue streams by enabling full utilization of the resources by the utility (if and when needed).

We anticipate that the new business model will continue to evolve as the number and diversity of connected DG and other DERs increase. Future changes will result in more efficient DG development proposals (e.g., incorporating customer-sited storage), improvements regarding the impact of DERs on network operations, and value creation benefiting all grid stakeholders.

ANM Technology Platform and Demonstration Project Configuration

FICS includes an ANM scheme that provides a smart grid environment designed to actively manage distribution assets in a flexible, expandable, and transparent manner. ANM technologies are currently in use in Europe, and have reduced interconnection costs by up to 90 percent, while doubling grid-hosting capacity. Figure 3 shows the proposed ANM architecture for the project. The combination of ANM platform and applications provides a means of securely and reliably managing grid constraints. This approach ensures ease of integration with existing systems and infrastructure, and can readily be scaled to other network areas, voltage levels, and controllable devices.

Figure 3: Proposed ANM Architecture



The demonstration proposal includes the deployment of two ANM 100 systems in order to provide a FICS solution for at least two customers – one each within the RG&E and NYSEG service territories. The FICS demonstration activity will also include four SGS connection devices to manage two generators per ANM system. The solution also includes the core, centralized system that can scale to 50 devices.

The ANM 100 scheme identifies the state of the network in real time and takes appropriate action to issue curtailment instructions or trip signals for delivery to the generator units. These functions are configured to meet the requirements to manage pre-fault and post-fault operating constraints using the ANM 100 application. Both voltage and thermal constraints can be managed via the real power curtailment actions implemented by the ANM 100 application.

c. Hypotheses Tested

We believe that SGS technology solutions will prove to be as effective on New York's distribution networks as they have been in Europe. However, there are questions with respect to the business

model that need to be tested before it can be applied at scale throughout our service areas. Stated in the form of hypotheses, the FICS demonstration project will test whether:

1. The more flexible interconnection business model will attract DG developers within the RG&E and NYSEG service areas;

2. DG developers and their customers will be willing to pay reasonable compensation for the value of "platform as a service";

3. Positive returns that will contribute to Companies' revenues; and

4. The solution and new business model will contribute to optimized DG solutions that create value for developers, customers, and RG&E and NYSEG, while helping New York State meet its renewable energy goals.

d. Commission's REV Demonstration Principles Addressed

The FICS addresses several of the demonstration project criteria initially presented in the Track 1 Straw Proposal, endorsed in the Track 1 Order and reinforced in meetings with Commission Staff and their consultants. Perhaps most importantly, the FICS will contribute to the overall achievement of REV's policy objectives and to the value of REV to our customers. Turning to the specific criteria, the FICS demonstration project will produce the following outcomes:

1. Third-Party Participation and Partnerships: We have partnered with SGS, a smart grid technology vendor interested in transferring an innovative solution from the UK market to the United States. SGS has established a U.S. office in New York, NY. SGS is contributing intellectual capital and services at highly competitive terms as an investment that advances its interest in the U.S. market. SGS is also contributing resources at its expense to the demonstration project scoping, preliminary feasibility analysis, and the regulatory filing. In addition, Solar City has agreed to act as an advisor to provide the experience of a DER developer. In addition, one of Solar City's projects may be included as part of a test site.

2. New Utility Business Models: FICS tests a radically different business model for large-scale DG interconnection. This model emphasizes collaboration and the joint pursuit of efficient solutions and the testing of a potential fee-based "platform" service that, when provided to third parties, will provide a new source of utility revenues. The solution is robust enough to accommodate the anticipated evolution of energy storage and other customer-sited energy technologies that will impact grid connections.

3. Customer Engagement: FICS engages larger customers in a different way by working with them to arrive at solutions rather than appearing in some circumstances to deny them the opportunity to address their energy needs in an alternative way. This outcome is usually based on valid but "technical" obstacles that are hard to explain. We are already working with Cornell University, a partner in our Energy Smart Community (ESC) Project, to consider pursuing one or more large-scale solar installations. The FICS will facilitate connection of more efficient large-scale community solar projects.

4. Identification of Economic Value: FICS creates economic value to be shared by customers (lower costs and faster installations), DG developers (more projects and higher value to their customers), SGS (expansion into the U.S. market), and RG&E and NYSEG (testing of the infrastructure as a service business and potential revenue source). This contrasts with the existing model that may either generate sub-optimal solutions or result in less than efficient development expenditures by both the DG developer and the electric utility.

5. Pricing and Rate Design: The new business model will test the pricing and commercial "platform as a service" schemes that will seek to balance and optimize DG developer project economics with margins for NYSEG and RG&E. The demonstration project may also help inform efforts to establish new DER pricing approaches.

6. Transactive Grid: The new interconnection process, supporting modeling efforts, and controllable outcomes are enabled by the ANM technology solution that incorporates two-way communications and real-time monitoring of a distribution network characterized by dynamic loads.

7. Scalability: The new interconnection process and enabling technologies are directly scalable throughout our service areas, although additional resources devoted to special studies and collaboration are required. Initial market outreach indicates a need for this type of solution. The solution is already operating at scale in the UK, and the FICS demonstration project should provide the learning necessary to expand to scale in New York.

8. Market Standards and Rules: FICS is likely to demonstrate that customers will benefit from active utility engagement and economic interest in the development of DERs. The demonstration suggests that hard and fast rules intended to "protect" a market that has not yet developed should be approached with caution until more experience is gained. FICS explicitly addresses the REV regulatory obligation to optimize DER resources.

9. System Benefits: FICS will result in more efficient interconnections, more efficient DG solutions for both customers and our network, and more DG on the network, with a new revenue source for the utility. Some of these DG installations may help alleviate constrained areas on the network. There may also be improvements in system efficiency and resiliency with efficiency improvements throughout the electricity delivery system, including transmission, distribution, and customer-sited operations.

10. Cost Effectiveness: FICS will result in new cost-effective and efficiently designed DG developments that could otherwise have been rejected, including some that may relieve areas of system constraint. Participating customers will be able to lower their utility energy bills if more DG is connected.

11. Timeframe: FICS, if successfully demonstrated and expanded to scale, will accelerate the benefits of REV.

3. Market Attractiveness

a. Unique Value Proposition (from the following perspectives)

As described in Section 2, FICS addresses market barriers and will generate incremental value for participating and non-participating distribution customers, DG developers, SGS, and the Companies.

i. Customers

Approximately 50 percent of DG developers in our service territories did not go forward with their larger scale DG developments in the last 12 months, in part due to significant interconnection infrastructure cost estimates that adversely impact the project economics. FICS provides a solution to this issue by reducing interconnection investments in circumstances where the customer is willing to incur relatively modest curtailment of its DG. The curtailment would occur during time periods when the distribution system is constrained to the degree that dispatch of the DG at full capacity would result in adverse impacts on the reliability and quality of service to other customers. Under the existing interconnection model, customers are forced to forego all DG benefits, rather than consider an option in which they continue to receive significant benefits with a lower fee contribution to cover interconnection costs.

ii. Partners and Third Parties

We are partnering with SGS to deliver FICS. SGS is supporting preliminary demonstration customer feasibility studies and concept development at their own expense. We plan to engage and compensate SGS as the FICS technology and consulting services provider once this initial phase has been completed.

SGS is currently supporting 35 generators representing around 120 megawatts (MW) of DG with a further 300 MW under contract to connect in the next 18 months.

iii. Non-DG Customers

The ability to connect more DG, optimize the design of DG projects that are connected from both a customer and utility perspective, and connect more DG that potentially contributes to deferral of costs would be needed to address system constraints. This outcome will benefit all customers by resulting in a more efficient development and operation of the distribution network. We will benefit from facilitating these outcomes and potentially benefit financially from new revenue streams. FICS supports the utility as the Distributed System Platform (DSP) obligation to optimize DER.

iv. System

The system will benefit by producing more efficient outcomes as compared to the current interconnection model. For example, to the extent that DG connections made possible by the

program alleviate system constraints on a permanent basis, this may eliminate future upgrade investments, rather than just delay these investments.

b. Customer Segmentation and Demographics

FICS is designed to accommodate proposed DG projects that would typically be subject to an engineering analysis to determine whether they will require a system upgrade in order to connect to the network. This analysis would generally cover larger DG projects (e.g., greater than 50 kW), which would require a Coordinated Electric System Interconnection Review (CESIR) under the existing Commission Standard Interconnection Requirements (SIR).

This analysis is supported by the recent experience of DG development that did not move forward. Estimated upgrade costs for those projects ranged from $600,000 to $1.3 million. In addition, we currently have approximately 12 large customers with estimated system upgrade costs that range between $1 million and $12 million. These customers may also benefit from FICS. It is also possible that REV and Clean Energy Fund initiatives will foster interest in DG among large customers.

These projects are typically initiated by DG developers or by large corporations that have facilities throughout the country and are sophisticated energy consumers. If the FICS demonstration project is successful, we anticipate that more DG developers and large corporations will be attracted to the New York market.

c. Channels (Communication, Sales, Promotion)

The FICS demonstration project will target a minimum of two customers – one each for the RG&E and NYSEG service territories. If the project is successful, then the issue of how best to attract new DG projects becomes relevant. FICS has the potential to be a significant selling point for DG developers that must decide where to invest their project development resources and to large corporations with multiple locations that face the same decision.

We currently interact with our largest customers on a range of issues through our large account management program. This existing customer channel, and more importantly, relationships can be leveraged to communicate the FICS as an option to the current interconnection approach. Separately, we can establish a more formalized outreach to the largest DG developers to make sure they are aware of the new FICS option as it may encourage them to devote more attention to the New York market. Certain DG developers actively engaged in the REV proceeding (e.g., Solar City) will likely be aware of the FICS option when it is approved, though others may not be.

Given the potential economic development contributions of FICS, we will also make sure that NYSERDA is appropriately engaged. NYSERDA's EDGE Regional Outreach Contractors represent an existing communication channel for communicating with many customer segments that are candidates for large DG projects.

d. Ability to Scale

The UK experience suggests that the ANM solution can be implemented at scale. SGS is currently supporting 35 generators, representing around 120 MW of DG, with a further 300 MW under contract to connect in the next 18 months. We expect that in the UK alone, SGS' ANM solutions will be managing GWs of DG within the next five years across 100+ ANM schemes. The ANM system has been validated and will currently support up to 100 generators in a single installation. This number continues to grow as SGS expands its test regimes. The SGS technology roadmap targets the support of tens of thousands of devices on a single platform within the five-year timeframe. In the short-term, the solution can be scaled using hierarchical control architecture. The ANM solution is typically rolled out on a regional basis as grid constraints emerge, and can be implemented such that one system can be part of another, thus allowing the system to support hundreds of thousands of devices.

4. Demonstration Plan

The FICS project will support efficient DG deployment, and will also facilitate the deployment at scale of a validated solution that reflects lessons learned from the demonstration effort. This section presents suggested metrics to gauge success of the demonstration project and lays out the approach to the project and associated timeline, as well as other project details.

a. Metrics for Success

We have identified eight potential measures that can be used to evaluate the success of the FICS demonstration project.

1. Selection of the FICS Option: Measurement of the number and percentage of FICS-qualified projects that elect the FICS option expressed as both the number of projects and MWs.
2. Interconnection Timeframe: Periodic reporting of the period required to process and install the FICS-based DG interconnects as compared to current and historical values for projects that follow the existing interconnection process.
3. Share of Generation Curtailed: The proposals to developers will include a forecasted curtailment percentage. The metric will measure the share of generation curtailed expressed as a comparison between actual and forecast.
4. Total FICS Utility Revenue: Utility revenues from "platform as a service" fees in the aggregate and on a per-MW basis.
5. Customer Satisfaction: Based on a post-interconnection survey of all projects, including those that decided not to go forward. The survey would capture feedback to improve the process over time.

b. Timelines, Milestones, and Data Collection

The FICS project will be implemented in three "activities".

1. Project Kick-Off: Project management and planning activities;
2. Final Design, Build and Configuration, Installation and Test, and Support: Development and implementation of the project; and
3. Evaluation: FICS assessment and recommended enhancements if implementation at scale is confirmed.

i. Project Kick-Off Phase

The Project Kick-Off phase includes confirmation of the project objectives, approach, timeline, and responsibilities in the form of a "Project Initiation Document and Project Plan," as well as

establishment of the project management protocols. The phase also includes substantial data gathering, modeling activities, and stakeholder engagement, concluding with the initial ANM design.

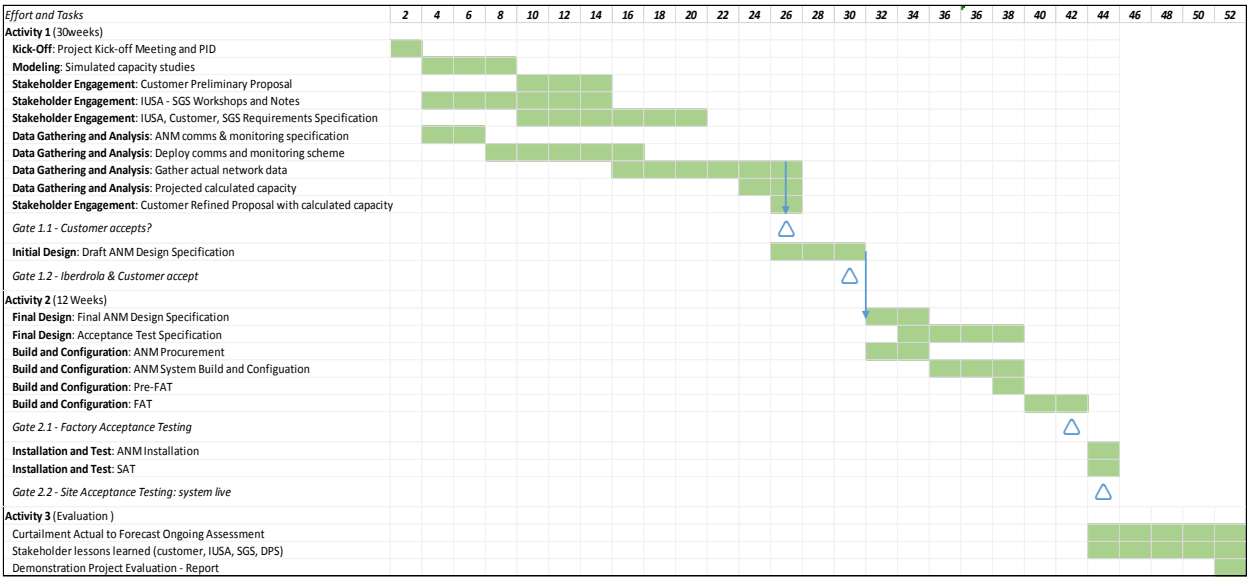
The modeling (and associated data gathering) involves the use of Monte Carlo or time-series based simulation of network performance and curtailment to provide a basis for the engagement of our distribution system planners with the participating DG developers. SGS will also provide case studies that customers can use to gain a more practical understanding of the value of the flexible interconnection approach. This will facilitate discussions that lead to shared clarity and understanding of what a "flexible interconnection" approach will mean in practice. The process relies on detailed historical network data profiles for the target feeders, as well as feeder load and DG performance profiles. The analysis will reveal the existence and characteristics of any network constraints or other performance concerns. The purpose of this analysis is to provide feedback to the demonstration project DG developer regarding potential curtailment options that have meaningful economic consequences for the DG developer and the Companies. Based on the initial feedback that may influence conclusions regarding the viability of curtailment options, the project team will develop a "Final, Simulated Flexible Interconnection Report" to be shared with the DG developer.

The project team will collect at least three months of actual data and analyze the performance of the network utilizing ANM solutions and communications technologies. These data will be shared with affected departments and operations personnel to review the ANM requirements. The sharing process will allow stakeholders to agree on communication and monitoring approaches, which will be documented in an "ANM Communications and Monitoring Specification Report."

The SGS team will work with us to deploy the recommended communications and monitoring scheme to support the collection of real-time network data. A comparison of actual data to modeled data will support a projection of FICS capacity. The outcome of this step is projected network model data and an assessment of firm versus flexible capacity. These data will form the basis of discussions that lead to agreement between NYSEG or RG&E and the DG developer regarding the flexible interconnection deployment plan. To ensure broad support for the recommendation, SGS will conduct workshops with affected stakeholders to confirm the ANM requirements and specifications, verify the integration approach with existing communications operations technologies (including interfaces with all existing systems), and specify the data logging requirements and integration with the our data historian.

The final step of the initial design is to validate the "platform as a service" market channels and revenue schemes. SGS will prepare an "ANM Design Specification" based on the constraints identified earlier in Activity 1, as well as the outcome of the "ANM Requirements Specification." These will comprise the Draft ANM Design Specification as the primary deliverable from this initial activity. As shown in Figure 4, the entire effort will take approximately six months.

Figure 4: Demonstration Project Timeline



Source: IUSA

i. Implementation Phase

The Final Design, Build and Configuration, Installation and Test phase will take approximately five months. The final design requires an assessment of configuration options available with the completion of the basic ANM control scheme, including an initial power systems analysis and approach to management of thermal and voltage constraints. The initial ANM modeling will assess thermal and voltage constraints management via real-power curtailment of participating generators. Each generator is managed in accordance with the voltage headroom available at constraint locations and the "Principles of Access" established by us. The final deliverables of this sub-phase are a "Final ANM Design Specification" and an "Acceptance Test Specification Report."

The next step is building and configuring the FICS platforms and supporting applications. The deliverables are a "Factory Acceptance Test Summary Report" and identification of all remaining ANM hardware requirements. The system will be installed at the demonstration project customers' sites and be subject to systems integration testing. SGS will conduct training sessions for our personnel.

ii. Evaluation Phase

The Evaluation phase will compile the lessons learned from all participants, including the Companies, the DG developers, and participating customers. This phase will include a report on DG facilities' performance, including a comparison of actual curtailments to forecast with explanation of any significant deviations. The final metrics will be included in an evaluation report. The final project report will include recommendations to enhance the FICS approach before it is expanded at scale. Having undertaken this effort, we will assess opportunities for Phase 2 to leverage the

platform to support future shared capacity opportunities (i.e., demand response, optimized energy storage). Future growth opportunities may include larger-scale DG interconnect requests to potentially minimize or avoid infrastructure costs of between $600,000 and $1.3 million. In addition, there may be opportunities for expansion through large customers with growth forecasts requiring major system upgrades (for example, there are currently 12 in the queue with upgrade values estimated between $1 million and $12 million.

The division of responsibilities between us and SGS for these activities is shown in Figure 5.

Figure 5: Activities and Division of Responsibilities

Activities	SGS	IUSA
Activity 1		
Kick-off and PID	Shared	Shared
Stakeholder workshops	Shared	Shared
ANM and Flexible Interconnection Overview	Shared	Shared
Power System Planning and Capacity Analysis	Shared	Shared
ANM Systems Integration and Communications	Shared	Shared
Flexible Interconnection Commercial Arrangements	Shared	Shared
Alternative Grid Reinforcement Policy and Standards	Shared	Shared
Business as Usual Support	Shared	Shared
Simulated capacity studies	Lead	
Monte carlo modeling	Lead	
Review modeling output with DG devel. & the Companies	Shared	Shared
ANM comms & monitoring specification	Lead	
Deploy comms and monitoring scheme		Lead
Gather actual network data		Lead
Ongoing gathering network data		Lead
Requirements specification	Lead	
Projected calculated capacity	Lead	
Gate 1.1 - Customer accepts?	Shared	Shared
Draft ANM design specification	Lead	
Gate 1.2 - Iberdrola & Customer accept		Lead
Activity 2		
ANM Design specification	Lead	
Acceptance Test Specification	Lead	
ANM Procurement	Lead	
ANM Build and configuration	Lead	
User Manual	Lead	
Maintenance and Support Manual	Lead	
Configuration and Development	Lead	
Pre-Factory Acceptance Testing	Lead	
Gate 2.1 - Factory Acceptance Testing	Shared	Shared
ANM Installation		Lead
Gate 2.2 - Site Acceptance Testing: system live	Shared	Shared
Training Slides	Shared	Shared
Training Day	Shared	Shared
Integrate DG and commission	Shared	Shared
System live		Lead

Activities (Cont.)	SGS	IUSA
Activity 3 (Evaluation)		
Curtailment Actual to Forecast Ongoing Assessment	Lead	
Stakeholder lessons learned (customer, the Companies, SGS, DPS)		Lead
Demonstration Project Evaluation - Report	Shared	Shared

c. Participation

i. Target Population, Sample Size, Control Group

As noted above, we contemplated installing FICS for two customers – one in NYSEG territory and one in the RG&E territory. However, the systems installed for demonstration project purposes will have the ability to support multiple generators. We will pursue these expansion opportunities if such expansions are efficient and facilitate a better understanding of the FICS process.

ii. Third-Party Partner(s) – specifics of agreement(s)

SGS will provide consultancy services supporting Network Capacity Data Gathering, Modeling, Stakeholder Engagement, and Active Network Management (ANM) Design Specification. SGS will also provide ANM procurement and configuration, as well as the final ANM design, factory testing, and deployment. And finally, SGS will work as a partner with NYSEG and RG&E to fully advance FICS Market Opportunities.

iii. Utility Resources and Capabilities

FICS will engage a number of existing Company departments, including but not limited to:

- Distribution Planning;
- Energy Control Center;
- Real-Time Systems and Telecoms;
- System Protection;
- Information Technology;
- Customer Engagement/Key Account Management;
- Interconnection; and
- Project Management.

d. Customer Outreach / Community Engagement

We are engaged with Cornell University (our ESC partner) and Solar City to determine whether they are interested in participating as a customer in the FICS demonstration project. Efforts are underway to identify one or two additional potential sites for this demonstration project. Once the

project is launched, we will engage stakeholders in an effort to validate existing and potential growth opportunities for the FICS model.

i. Community Outreach

We have already actively engaged the Tomkins County community as part of our existing ESC proposal. Cornell is a key partner in the proposed community engagement. The need for FICS evolved from discussions with Cornell in support of its proposed large-scale DG sites.

ii. Motivating Customers / Communities

FICS is in response to a need from DG developers for more economic solutions for distribution interconnection. Based on feedback from customers, NYSERDA, and Solar City, FICS will help address latent demand for a more economic interconnect solution.

e. Conditions / Barriers

There are certainly barriers to success for any demonstration project, as well as conditions that are anticipated to be required to support a successful project. These include:

1. Customer Acceptance: DG developer participant acceptance of the solutions, particularly the curtailment necessary to achieve savings in interconnection costs[3];
2. Existing Regulatory Requirements: Exceptions may be required from certain existing requirements[4];
3. Consensus on Demonstration Project Learning: The project team will actively engage internal and external stakeholders, DG developers, and NYS policy-makers throughout the demonstration project to ensure stakeholder relevance and consensus on FICS market outcomes and "platform as a service model," and address the market rules and standards;
4. Organizational Readiness and Learning: Our engineering planning and smart grid integration practices will require review and may change due to this solution; and[5]

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[3] Real-time capacity management of the grid will require curtailment from DG – typically a few percent of capacity. The project team will work with DG developers to ensure their understanding and willingness to proceed before, during, and post-commissioning in order to assess demonstration effectiveness. The project will include measurement and verification.

[4] The project team will work with state policy-makers on policy barriers that might affect such high DER deployments (e.g., NYS SIR and the 20 percent of rated capacity of the feeder line rule (as per PSL §66-l(5)(c)(ii)) and PSL §66-j(5)(b)(iii)).

5. Potential Favoritism of Unregulated Affiliates: Program participants may have a concern that we may favor an unregulated affiliate over independent parties as we operate this demonstration project. We will address this by committing that no unregulated affiliate of the Companies or their ultimate parent Iberdrola USA will participate as a DG provider in this demonstration project. Further, we will work with all interested parties to develop rules governing how we would interact with unregulated affiliates in the future as FICS is scaled beyond a demonstration project level.

i. Market Rules and Standards

See above under conditions and barriers.

ii. Consumer Protections

See above under conditions and barriers.

iii. Channel or Market Challenges

See above under conditions and barriers.

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[5] Traditional grid capacity assessments rely upon worst case engineering planning methodologies that do not consider the real-time grid capacity available for DER interconnection.

7. Financial Elements / Revenue Model

The following table presents the pro forma income statement.

Table 1: IUSA Pro Forma Income Statement

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Total Units Connected - Annually	-	**2**	**2**	**4**	**8**	**9**	**10**	**15**	**15**	**15**	**20**	**20**
$ million												
Gross Revenue	-	**0.06**	**0.12**	**0.24**	**0.48**	**0.75**	**1.05**	**1.50**	**1.95**	**2.40**	**3.00**	**3.60**
Total O&M	-	**0.17**	**0.34**	**0.53**	**0.75**	**0.81**	**0.87**	**1.25**	**1.36**	**1.39**	**1.80**	**1.92**
EBITDA	-	**(0.11)**	**(0.22)**	**(0.29)**	**(0.27)**	**(0.06)**	**0.18**	**0.25**	**0.59**	**1.01**	**1.20**	**1.68**
Depreciation		0.02	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.06	0.06	0.07
Operating Income	-	**(0.13)**	**(0.26)**	**(0.33)**	**(0.31)**	**(0.10)**	**0.14**	**0.20**	**0.54**	**0.95**	**1.14**	**1.61**
Income Before Income Taxes	-	(0.15)	(0.29)	(0.36)	(0.34)	(0.14)	0.10	0.16	0.49	0.89	1.08	1.54
Net Income	-	**(0.09)**	**(0.18)**	**(0.22)**	**(0.21)**	**(0.08)**	**0.06**	**0.10**	**0.29**	**0.54**	**0.65**	**0.93**

Source: IUSA

The FICS model includes the following assumptions for both the demonstration project period (2015-2016) and for the projected development at scale throughout NYSEG and RG&E's service territories.

- The costs assume a demonstration site in Tompkins County, NY, as well as a separate site in the Rochester service area.
- The interconnect costs include two 2-MW solar photovoltaic (PV) systems interconnected with FICS in 2016. We are currently working with Cornell University to identify whether their DG sites would be appropriate for the FICS solution.
- The initial capital requirements are approximately $1.2 million and include both the technology solution and consulting working with Smarter Grid Solutions, as well as internal labor and costs to support the system interfaces and communications capabilities to support the solution.
- For illustrative purposes, the revenue opportunity assumes an annual fee per generator of $30,000, which will cover NYSEG and/or RG&E revenue requirements at scale. Each proposal and the specific fees will be customized depending on the location, DG size requirements, and curtailment levels. We have assumed a breakeven value to identify the fee "floor," but will look to optimize revenue with a proposal that considers the traditional costs, relative to the flexible interconnect solution.

a. New Utility Revenue Streams

i. Platform Services, including Pricing Strategies

One of the principal objectives of the demonstration project is to assess whether the FICS "platform as a service" model has the potential to generate meaningful revenues if implemented at scale. Certainly, the effort to work with the participating DG developers and customers will provide an opportunity to pursue this inquiry, albeit on a limited basis.

We will consult with SGS to obtain insights garnered from its participation in UK markets. We currently anticipate the application of system fees that cover FICS studies, modeling, and design efforts. The site installations will likely require some capital investment (and thus, a customer contribution), as well as operating and maintenance (O&M) expenses that will need to be recovered. We propose to charge "platform as a service" fees customized for each installation to reflect the DG rated capacity, location conditions, timing, and asset condition circumstances. The fee structure and contract term will also address the timing of grid upgrades. There are potential variations on this approach that can be reflected in the customer contracts. These include potential credits for upgrade cost contributions if there are future interconnections on the same circuit.

We are evaluating certain fee options for circumstances if and when FICS expands to scale, including capacity controls, optimized storage, or volume-based discounts for multiple installations for a DG developer.

ii. Details and Timing of Spending

The initial capital requirements are approximately $1.2 million and include both the technology solution and consulting work with Smarter Grid Solutions, as well as internal labor and costs to support the system interfaces and communications capabilities to support the solution. Based on the solution at scale, annual O&M run rates per generator decrease during the planning period from $86,000 to $16,000.

iii. Leveraging of Third-Party Capital

SGS is supporting preliminary demonstration customer feasibility studies and concept development at its own expense.

b. Returns (return on investment (ROI) estimates, when self-sustaining, etc.)

As noted above, we examined various fee options, which would cover the revenue requirements of adopting the FICS capability. The table below indicates that a $30,000 annual fee charged to each generator would cover the revenue requirements. Based on the model at scale, FICS breaks even in about 2021 when 32 generators are connected, when each is charged the annual fee of $30,000.

Table 2: Net Income Sensitivities

Net Income Sensitivity of Fee Amount	2015 - 2026
$20,000	($885,282)
$25,000	($204,286)
$30,000	$476,710
$35,000	$1,157,707
$40,000	$1,838,703

c. Cost Effectiveness

As the minimum fee that achieves breakeven, FICS has a net present value (NPV) net income of roughly $500,000 at scale. The demonstration project will test pricing schemes that optimize DG development with margin for the Companies.

i. Benefits to Ratepayers, both Qualitative and Quantitative as Compared to the Cost

As shown in Figure 6, FICS provides both direct and indirect benefits for the utility, DER developers, and ratepayers/customers.

Figure 6: Cost-Benefits Categories Matrix: (D) direct (I) indirect

	Flexible Interconnection		*Traditional Reinforcement (highlights only)*	
Stakeholder	***Costs***	***Benefits***	***Costs***	***Benefits***
Utility	Studies and modeling (D)	Use of system fee (D)	Reinforcement capex	ROI on higher capex
	ANM capex (D)	Higher asset utilization (D)		
	Higher opex (D)	Smart grid platform (I)		
	Loss of traditional reinforce. capex and ROI (I)	Coincident DER market enabler (I)		
DER Developer	% of ANM capex (D)	Earlier revenue (D)	Higher capex; grid reinforcement (D)	Maximum revenue (D)
	Use of system fee (D)	Reduced capex (D)		
	% curtailment revenue loss (D)	Project viable (D)	Delayed or possibly unviable project (D)	Firm interconnection (I)
		Flexible interconnection (I)		
		Customer higher ROI (I)		
Ratepayers and NYS citizens		Constrained network management (D)		
		T&D deferral (I)		
		More developers connect to the grid (I)		

8. Reporting

a. Information to be Included in Quarterly Reports to the Commission

Quarterly reports to the Commission would include a status report on project milestones, actual versus budgeted project spending, and success metrics. In addition, quarterly reports will include lessons learned that may prove beneficial to inform stakeholders impacted by REV. These lessons learned, as well as the final metrics will also be summarized in the final evaluation report.

9. Conclusion

The traditional interconnection process assumes that the distribution utility invests in distribution facilities to accommodate the new resource. Meanwhile, the customer is required to finance the incremental grid costs attributable to its interconnection. This often results in a lack of DG expansion due to prohibitive project costs. By contrast, FICS provides a new option for large-scale controllable distributed generation to connect to the grid. The FICS platform is built upon automation technologies that enable high DG deployment solutions that address power distribution problems in an integrated, safe, and reliable fashion. The "platform as a service" model merges customer and utility interests. FICS establishes a flexible solution for the project developer and utility to come to an agreement that maintains the viability and benefits of the project, and allows NYSEG and RG&E to operate on a "platform as a service" business model.

a. Post-Demonstration Benefits

i. Qualitative

At scale, the FICS ten-year forecast assumes 20 sites are connected with an annual revenue in year ten of $3.6 million.

ii. Quantitative

FICS provides the opportunity to connect more DG, optimize DG project design, and connect more DG that could contribute to deferral of system costs. This outcome will benefit all customers by resulting in a more efficient development and operation of the distribution network. FICS supports the utility as the DSP's obligation to optimize DER. In addition, the system will benefit by producing more efficient outcomes as compared to the current interconnection model.

b. Plans to Scale

i. Break Points in Scaling

FICS has been proven at scale in the UK. The proposed demonstration project is the first known ANM initiative in the U.S. Because we plan to have two FICS interconnections in both RG&E and NYSEG territories, the demonstration project will establish a platform upon which further site installations can be supported. In addition, the technology provides a platform for additional services including optimized storage and demand response.

c. Advantage

With FICS, the desired outcome is a faster, less expensive interconnection process with more DG located where it has high value to all customers, while at the same time potentially deferring or reducing overall network investment costs related to capacity.

Community Energy Coordination

1. Executive Summary

The Community Energy Coordination ("CEC") program will demonstrate the value of community-level market coordination and purchasing to enable self-funded community energy initiatives and provide the potential for an additional revenue source for NYSEG. NYSEG, in partnership with a market coordinator, will develop a scalable, replicable process that leverages community scale Distributed Energy Resource ("DER") purchasing to create value for customers, communities, DER providers, the market coordinator, and NYSEG. Through this project, we will demonstrate a new business model, foster market competition, and engage our customers with energy product options.

The CEC process will consist of three phases: (1) integrated energy planning, (2) customer solicitation, and (3) market solicitation. Through the three phases, we will work with our market coordinator partner to 1) identify market opportunities in the planning phase, 2) qualify and aggregate interested customers in the customer solicitation phase and 3) provide an aggregated market opportunity to DER providers who will work directly with customers to finalize sales. The costs of connecting customers and third parties can be reduced through pre-qualification of participants and aggregation of market opportunities. We expect these efficiencies to lead to successful delivery of community sustainability goals at lower costs.

The CEC process will include collaboration between NYSEG and the community in order to create alignment with community energy goals. We will utilize our customer and system data to identify optimal customer candidates for product offerings at locations with specific system features (i.e., distribution system constraints, etc.). For the demonstration period, a coordinating market partner will help facilitate and manage the CEC process. In addition, we will establish partnerships with at least two service providers who will provide the energy products and services, provide input on the CEC concept as processes mature, and share data throughout the program implementation.

Our coordinating market partner will take the lead in managing the CEC program by facilitating the integrated community energy plan, customer outreach, and the bulk purchasing solicitation process. We anticipate that a portion of the revenues generated by the CEC program will be shared with the coordinating partner. This partner could leverage this demonstration project experience to create a scalable template to be implemented in other portions of NYSEG's and RG&E's service territories, in other communities in New York, and nationwide.

2. Business Model(s) Overview

a. Problem (the Market Opportunity)

Customers, municipalities, states, and utilities pursue DER independently today, with each stakeholder pursuing DER from a unique perspective. The frequent misalignment between DER goals and stakeholder priorities has made the DER landscape complex and inefficient, with a lack of coordination and value optimization. These inefficiencies create an opportunity to coordinate to optimize value and develop a more robust DER market at the same time.

Utility, Customers, and Community Energy Planners:

A more robust distributed energy system involves many more market participants than operate on the distribution system today. Stakeholders have a variety of priorities:

1. Residential Customers tend to be focused on cost, with certain customers also focused on environmental concerns;
2. Commercial and Institutional Customers are focused primarily on cost and reliability, but certain customers are also focused on the environment;
3. Utilities are focused on system reliability, customer satisfaction, cost recovery, and compliance with statutory and policy mandates;
4. Municipalities emphasize economic development and environmental goals; and
5. State Governments are interested in advancing energy policy goals.

Market Providers

DER is an emerging, fragmented market in which providers have limited brand recognition. This means that customer acquisition costs for distributed energy resources are typically high. The DER market relies on government subsidies; uncertainty regarding the renewal and extension of subsidies can inhibit market development. There is also a limited understanding of the DER market potential at the community level. The fragmented market and lack of coordination in community energy planning creates an opportunity for a more efficient process to provide value for customers, the community and the utility.

b. Solution

CEC provides the community-level aggregation of qualified and interested customers who are likely to purchase energy products and services, including DERs. The process will include collaboration between NYSEG and the community in order to create alignment with community energy goals, gain community support, and provide more diverse energy services options for the community's residents. We will utilize customer and system data to identify the ideal candidates in suitable locations for product offering.

CEC provides a new, coordinated, and integrated approach to energy planning and implementation at the community scale by comprehensively evaluating the needs of multiple stakeholders for synergistic opportunities. This will be done in three phases: (1) planning to support identification of market opportunities, (2) customer solicitation, and (3) market solicitation. For the demonstration period, NYSEG and our coordinating market partner will identify and establish partnerships with at least two qualified service providers who will provide energy services and share data throughout the CEC implementation.

CEC will demonstrate a self-funded, scalable, and replicable process that will use utility data and knowledge in order to optimize community energy planning. For example, the project will leverage NYSEG's brand and communication channels to optimize the customer acquisition process for DERs. The process will utilize bulk purchasing to animate the DER market, with cost savings to be shared among customers, NYSEG, and our coordinating market partner. Throughout the process, the coordinating market partner will build experience that it can take to other communities and utilities.

Planning Phase

The planning phase will identify the regional market potential and estimated market opportunity for energy resources. We will use utility and community data to qualify market opportunities. For example, we may work with our coordinating partner to identify high-usage buildings and homes that would benefit most from energy efficiency or distributed generation. The planning phase will also identify optimal locations for distributed generation by evaluating distribution system needs. The project will leverage existing utility distribution system plans, regional energy and sustainability plans, economic development plans, and municipal and institutional energy plans to coordinate and leverage cross-stakeholder synergies.

The Reforming the Energy Vision ("REV") proceeding provides a unique opportunity to re-examine the role of the utility as an energy service coordinator and advisor, and to identify wholesale and distribution-level value streams not previously perceived as available to customers, communities, or market providers.

The project will identify synergies among various entities that have prepared energy plans (i.e., NYSEG's distribution system plans, municipal economic development and sustainability plans, and regional stakeholder sustainability plans, etc.). Through the CEC, we can help coordinate regional energy planning, given our existing relationships with all stakeholders, knowledge of the distribution system, and familiarity with regulatory and business processes.

Customer Solicitation Phase

CEC will leverage NYSEG and community brands and initiatives to identify customers that are likely to be interested in DERs and related products and services (i.e., solar photovoltaics (PV), energy efficiency, etc.). Communication and outreach efforts will leverage our existing communication channels, which include direct mail, bill inserts, and web-based communications. A key element of the communication message will be community energy goals and the individual actions that can be taken to support those goals. We will become akin to a sales agent for energy service providers. Interested customers will be identified and included in the energy services solicitation.

We recognize that some users and community organizations may not have the resources required to obtain DERs, even with the cost efficiencies that the CEC is intended to create. The market coordinator will work with these community organizations (i.e., schools, non-profit organizations, etc.) to create and offer alternative funding opportunities that leverage the community's motivation to support these organizations and to contribute funding for distributed energy solutions. For example, we could require the market coordinator to facilitate a way to obtain direct financial support from community members, using a "kickstarter" approach to finance energy projects.

Market Solicitation Phase – (Bulk Purchasing of Customer Energy Needs)

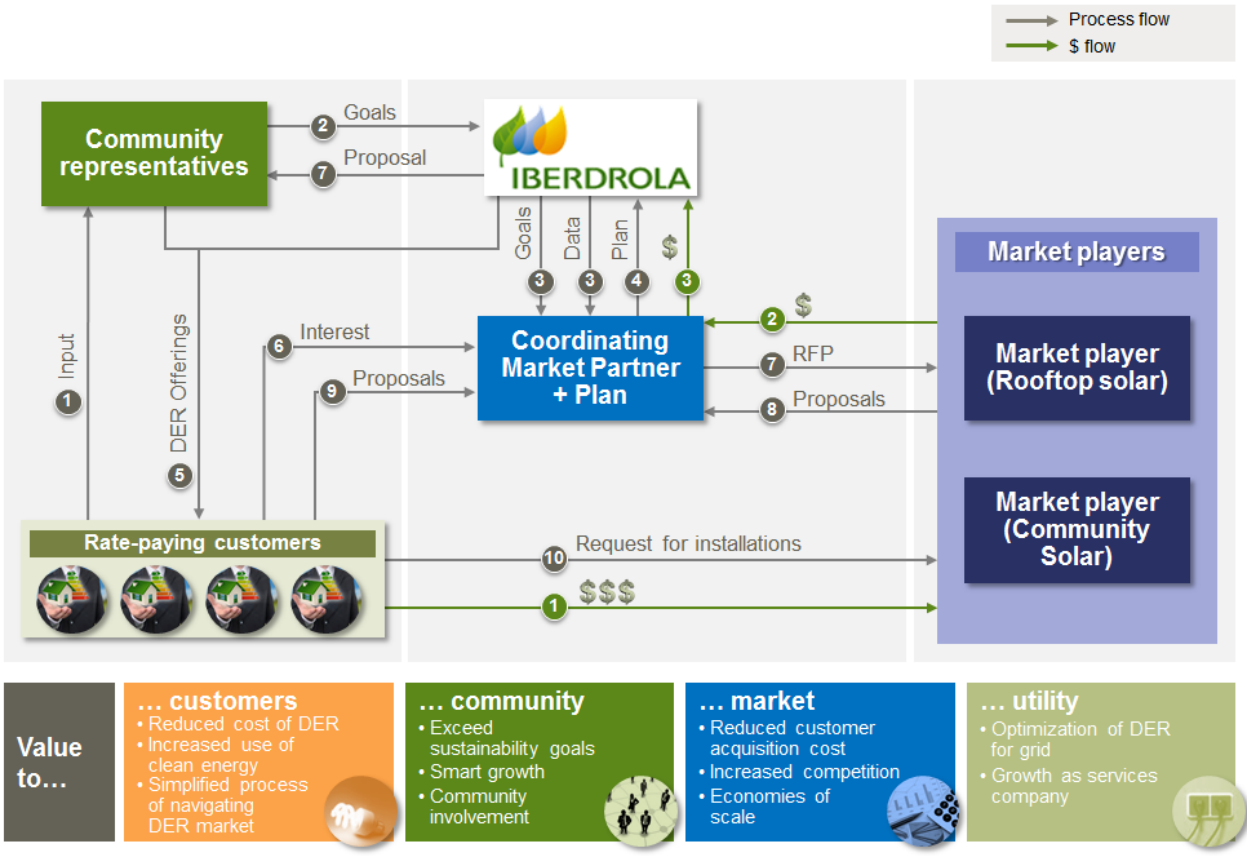
During the demonstration period, participating service providers will receive leads identified during the customer solicitation phase. Service providers will pursue sales with customers that have already expressed interest, thus reducing acquisition costs. Service providers will pay us a "lead generation" fee based on the reduction of customer acquisition cost and savings from bulk purchasing. A portion of this savings will also be used to reduce the cost of the DER or related product or service for participating customers.

At scale, the market solicitation phase will include a competitive request for proposal ("RFP") for service providers, thus providing a pre-qualification service that has value to customers. The coordinating market partner will present the aggregated market opportunities to potential market participants, who will then provide competitive bids for the community bulk purchasing opportunity. Future phases of CEC could include financing, either from a financial institution partner or another state-identified alternative. In addition, stakeholders may also choose to explore utility bills as a means of collecting CEC revenues.

<u>CEC Business Model</u>

The figure below illustrates the way CEC will generate value for customers, the community, our company, and the market. As illustrated in the diagram, community members provide input to community energy goals, which, with NYSEG's system plans and data, are synthesized into an integrated plan and an identified market proposal. Qualified customer interest is incorporated into an aggregated purchase opportunity and presented to the market with a resulting sale and installation. CEC provides value to stakeholders all along the value chain: customers benefit from reduced DER costs and a streamlined DER market process, and the community benefits from progress toward its sustainability goals.

Figure 1: CEC Flow Diagram



The CEC project is similar to a Community Choice Aggregation ("CCA") initiative in that it leverages community bulk purchasing to provide lower costs to customers. However, the CEC differs from a CCA in a number of ways. First, customers in the CEC opt in to the products that are offered, as opposed to CCA programs, which are ordinarily operated on an opt-out basis. In addition, the CEC is focused on DER products and services while CCA programs typically only target supply. For both the CEC and CCA, the contract and provision of the DER service is contracted directly between the customer and the provider.

c. Hypotheses Being Tested

CEC is being designed to address the following hypotheses:

- Community level coordination and purchasing will create value to support self-funding energy initiatives;
- Community and utility engagement will increase DER penetration at a lower cost; and
- We can create a repeatable, scalable process for increasing DER penetration, meeting community goals and benefiting the grid.

d. Commission's REV Demonstration Principles Being Addressed

CEC addresses several of the REV Demonstration Project criteria that were established by the New York Public Service Commission ("Commission") in December 2014.[1] A primary objective of the CEC is to develop partnerships between NYSEG and third-party service providers, who will either serve as "coordinating market partners" or as vendors of energy products and services.

CEC will create economic value through an efficient, aggregated DER marketing and sales model, and will allocate this value among end customers, project partners, and the product and service providers. Furthermore, NYSEG's role as a type of sales agent will foster market competition and accelerate adoption of DER products and services.

The Commission has expressed a preference for demonstration projects that can inform pricing and rate design modifications. We anticipate that future CEC opportunities may combine peak-reducing rate designs and bulk-purchasing of smart thermostats and community-based behavior comparisons. In addition, Advanced Metering Infrastructure (AMI) will provide greater insight into customer consumption patterns and will enable more effective identification of customers that would benefit most from DER.

[1] New York Public Service Commission. "Memorandum and Resolution on Demonstration Projects." CASE 14-M-0101 - Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision. December 12, 2014.

3. Market Attractiveness

a. Unique Value Proposition

We are uniquely capable of serving as the intermediary between the community, customers, and the market of energy products and services providers. Our understanding and responsibility for the grid, and our relationships with customers and stakeholders will enable us to make significant progress with community-based initiatives like the CEC. In addition, we have a fundamental understanding of regulations and the overall industry that is needed for successful CEC implementation.

i. Participating Customer

Participating customers are expected to benefit from reduced DER costs, greater use of clean energy, and a more accessible process for navigating the complicated DER market. In addition, customers will benefit from the achievement of community energy goals.

ii. Partner / Third Party

(1) Community

The community will benefit from meeting and exceeding its sustainability goals. Community involvement in CEC is essential to program success, further improving relations between project participants and the community. Communities include municipalities and key stakeholders including Cornell University, Ithaca College, and advocacy groups.

(2) Market Coordinating Partner

Partner organizations will be able to take advantage of new business opportunities and to build and test a new business model. A coordinating market partner will manage the CEC process, with the intent of developing a scalable process for future deployment.

(3) Market Providers

Third-party providers of energy products and services will benefit from lower customer acquisition costs, improved competition, and the benefits of economies of scale.

iii. Utility

NYSEG will realize value from CEC through potential additional revenue generation, grid optimization opportunities with DER, increased visibility on future community energy needs for system planning and increased customer and community satisfaction. We will also gain valuable experience as a Distributed System Platform ("DSP") operator.

iv. System

CEC could optimize grid-DER coordination by reducing costs through the pursuit of non-wires alternatives that can defer traditional distribution investments.

b. Customer Segmentation and Demographics

Successful implementation of the project will depend on identification of customers with the greatest potential to benefit from participation. For example, a rooftop PV marketing effort would focus on residential homeowners with rooftops that are positioned for maximum solar potential. We estimate that these customers represent approximately 25% of the residential market in the NYSEG service territory. Community PV would be targeted to residential customers who do not have rooftops suitable for roof mounted PV or live in multiple-dwelling buildings.

See the CEC revenue model in Section 5 for a more detailed discussion of rooftop solar and community solar opportunities.

c. Channels (Communication, Sales, Promotion)

The enhanced sense of community and coalescence around shared community goals will be a key feature of the communication and promotion strategy. The customer recruitment communication strategy will be tied directly to progress toward community energy goals. Communication strategies could include an energy savings comparison across the community, individual contributions to community goals, and an ongoing community energy goal 'count down' communicated via social media and community websites.

CEC will leverage the service providers' existing relationships in the community, as well as our relationship with the Tompkins County, the City of Ithaca, the Town of Ithaca, and Cornell. In addition to existing NYSEG communication channels, CEC will use a range of communications platforms including community forums, websites, social media (e.g., Facebook and Twitter), email, and advertising.

d. Ability to Scale (How large could this be?)

We envision two primary dimensions for scaling CEC: expanded product range and geography. The initial product range will likely include rooftop solar, community solar, or home weatherization and will ultimately depend on the outcome of the planning phase. Growth opportunities for the CEC program could include additional products:

- Smart thermostats;
- Heat pumps;
- High efficiency water heaters;
- High efficiency air conditioners;
- High efficiency furnaces;
- Boilers;
- Windows;
- Building energy management systems; etc.

CEC will initially focus on Tompkins County, with the potential to expand in the future to additional areas including all NYSEG and RG&E service territories. We expect that CEC will scale to one additional location in year two, with additional opportunities to grow beyond that point based on the success of the initial program implementation.

4. Demonstration Plan

a. Metrics for Success (now and future)

Quarterly status reports will reflect progress using the phase-specific metrics introduced below. A summary of performance throughout the project will be provided in the final evaluation report. Pre-deployment projections for each metric will be developed with the coordinating market partner and, if applicable, with the community.

Planning Phase

Within the Planning Phase, metrics may include:

- Identification of utility system benefits and constraints;
- Identification of synergistic opportunities across stakeholders;
- Identification of at least one future community for collaboration; and
- A completed integrated community plan.

Customer Solicitation Phase

Metrics for success in this phase focus on customer outreach and include:

- The proportion of targeted customers that sign up for the service offering; and
- Customer awareness of demonstration project opportunities, measured by comparing satisfaction survey results with other communities not involved in the CEC initiative.

Market Solicitation Phase

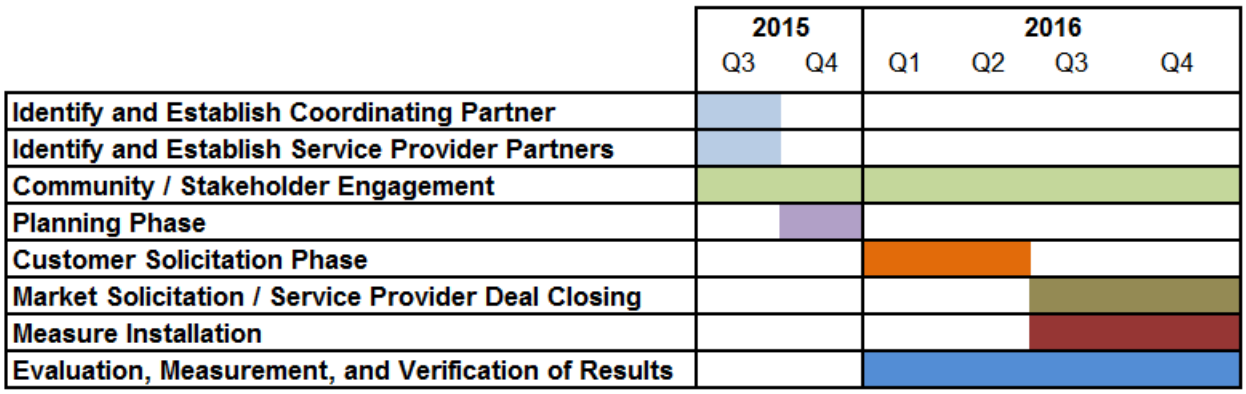
Metrics for the Market Solicitation Phase will include measures of procurement activity, including:

- Number of customers who purchase services;
- Percentage of qualified customers that purchase services;
- Utility revenue;
- Coordinating partner revenue and expenses;
- Utility revenue as a % of sales;
- Proportional penetration of services in the engaged community compared to two non-participating counties (Broome and Cayuga); and
- A comparison of customer purchase price paid by customers for energy resources in Tompkins County to prices observed in two non-participating counties (Broome and Cayuga).

b. Timelines, Milestones and Data Collection

The figure below illustrates key milestones and the project timeline. NYSEG will continue to engage the coordinating partner and service providers Q3 of 2015. Although already initiated, community engagement will continue Q3 of 2015 as well. The CEC Planning Phase will then begin in Q4, followed by the Customer Solicitation Phase in Q1 2016. In Q3 2016, the Market Solicitation Phase, along with service provider deal closing will begin. Installations will take place at this time as well. NYSEG will monitor demonstration project results throughout 2016.

Figure 2: CEC Timeline



i. Implementation Phase

Key CEC planning milestones include:

- A project plan with the stakeholder engagement and communication efforts will be completed by the end of Q3 2015. This plan will be developed with the coordinating partner.
- The integrated Planning Phase will launch on October 1, 2015.
- Customer solicitation will begin in Q1 2016.
- Key milestones for customer solicitation will be included in the plan jointly developed with the partners.

ii. Evaluation Phase

Program evaluation, including a quarterly assessment of results, will be conducted throughout the project implementation effort. An overall evaluation report will be published within one quarter of completing the program.

c. Participation

i. Target Population, Sample Size, Control Group

Target populations will vary by CEC project type. For example, if chosen as a resource, rooftop solar would target homeowners, currently estimated at 23,500 homes. If community solar is chosen as a resource, the program would target homeowners without appropriate structure for rooftop PV, as well as non-transient renters. If weatherization is chosen as a resource, the program would target homeowners and residential rental unit owners.

ii. Third-Party Partner(s) – specifics of agreement(s)

The coordinating partner will be a key element of the CEC project. IUSA will use the following criteria to select a coordinating partner:

- True partnership, with revenue directly linked to sales;
- Desire to scale the CEC concept in additional communities;
- Desire to scale asset offerings;
- Knowledge of distributed solar PV services and markets;
- Knowledge of energy efficiency equipment, services and markets;
- Experience coordinating projects across multiple stakeholders;
- Experience establishing new business models; and
- Understanding of New York REV and utility regulation.

Service provider partners will be critical for the CEC Planning Phase and will be responsible for delivering services to participating customers.

Criteria that will apply to the selection of service provider partners include:

- Experience and understanding of local DER markets;
- Proven ability to delivery PV, EE, and/or other DER resources at or below market rate;
- Favorable reputation in Tompkins County;
- Willingness to be completely transparent with NYSEG and our coordinating partner regarding costs and revenues;
- Willingness to test the value of NYSEG and our coordinating partner as sales agent for PV, EE, and/or other DER;
- Willingness to be flexible depending on the direction of the CEC project; and
- Ability to deliver the expected PV, EE, and/or other DER within the timeframe of the project.

iii. Utility Resources and Capabilities

As filed in our recent rate case filing, the Energy Smart Community ("ESC") project is being developed in Tompkins County; the ESC plan has served as a platform for demonstration projects, leveraging strong relationships with community stakeholders. NYSEG has been participating in the Tompkins County Energy Roadmap Steering Committee and is a member of the Tompkins County Chamber of Commerce. NYSEG will devote a full-time project manager, a half-time distribution

engineer, a half-time communications resource, and a part-time data analyst to Company projects that are hosted within the Energy Smart Community.

d. Customer Outreach / Community Engagement

i. Outreach to Affected Communities

NYSEG continues to participate in the Tompkins County Energy Roadmap Steering Committee and the Tompkins County Chamber of Commerce. We also collaborate with institutions in Tompkins County, the City of Ithaca, the Town of Ithaca, and Cornell University. In addition, we take part in community forums, and are actively engaged in social media and advertising campaigns.

NYSEG has actively engaged the community in the planning for our Energy Smart Community, which was filed as part of our recent rate case filing.

ii. Motivating Customers / Communities

NYSEG intends to help support community energy goals associated with the program. These goals will dovetail with existing energy and sustainability goals in Tompkins County and Ithaca, both of which have developed energy and sustainability plans that are aligned with REV's vision. Ithaca's leaders have stated a goal of reducing Greenhouse Gas ("GHG") emissions by 40 percent by 2025, an important strategic objective of the community's Energy Action Plan. Tompkins County has also set energy and sustainability goals that are aligned with our plans for the Energy Smart Community and with REV. Finally, Cornell University has a goal of creating a sustainable and carbon neutral campus by 2035[2]. We will continue to engage the community on energy issues, and provide an opportunity to reduce costs for customers to learn about and acquire service offerings.

e. Conditions / Barriers

i. Market Rules and Standards

We are currently unaware of market rules or standards that apply to or create conflicts for the CEC program. Any barriers identified during the demonstration project execution will be documented in the quarterly and final reports.

ii. Consumer Protections

Service providers in CEC will be responsible for assuring that they provide high-quality service to customers participating in the program. Poor performance by a service provider in the program would not only negatively impact customer participants, it may also make CEC less attractive to other customers that are considering participation. As a result, there will be provisions in the agreements we enter with service providers that will enable us to quickly disqualify a service

[2] Cornell University. 2013 Climate Action Plan Update & Roadmap 2014-2015.

provider if, in our best judgment, that provider is not providing an acceptable level of service to our customers. Although the service provider will have the direct contractual relationship with the customer, we will monitor the DER providers to ensure appropriate services are provided.

iii. Channel or Market Challenges

Service providers that are not selected to participate in Phase 1 of the CEC may raise concerns about how the participating service providers were selected. The schedule associated with the rapid deployment of demonstration projects does not allow sufficient time for a formal solicitation process for Phase 1. We will employ a transparent, competitive solicitation process for interested service providers prior to implementing Phase 2.

5. Financial Elements / Revenue Model

a. New Utility Revenue Streams

i. Platform Services, including Pricing Strategies

The bulk purchasing of energy products and services is expected to create savings when compared to current retail prices available to individual retail customers. Savings may include lower customer acquisition costs for service providers and reduction of other "soft costs" due to bulk purchases. Bulk purchasing could also include efficiency of deployment (i.e., increased efficiency savings with bulk solar PV installation in the same geographic area), as well as increased competition among service providers.

A portion of the savings will be passed on to end-use customers. In addition, NYSEG and its coordinating partner will retain a portion of the savings as a service fee. Initial products and services are expected to include (but not be limited to) solar PV, and weatherization. The products offered in Phase 2 are envisioned to include additional products such as home insulation, lighting, HVAC equipment, home and building energy management equipment, smart thermostats, and emergency generators.

If the DER resources benefit the distribution system by deferring the need for traditional investment in distribution infrastructure, the savings will be shared with the purchasing customers as part of the lower cost of the new service.

ii. Future Financing Opportunity

CEC offers opportunities to help finance customer purchases of energy products and services. Longer-term opportunities exist for us to become involved more directly with customer financing by, for example, aggregating customer debts that could then be sold as financial products. There is also the possibility that NYSEG could include the monthly financing charge on a participating customer's utility bill. If the purchase is truly cost-effective, a participating customer could fund all or part of the payment of their product purchase through monthly savings on their utility bill.

b. Investments

i. Details and Timing of Spending

Figure 3, below, presents anticipated financial performance of the CEC. The pro forma model includes the following assumptions for both the demonstration project period (2015-2016) and for the projected development of CEC at scale throughout NYSEG and RG&E's service territories:

- The demonstration period is 3Q15 through 4Q16.
- Initial products offered in the CEC include Residential Solar PV and Community Solar PV.
- Average system sizes include 7.9 kilowatts (KW) for residential PV systems and 500 KW for the community-scale PV. Community Scale PV projects are estimated to include 60 subscribers per project.
- The projected sales forecast is consistent with national sales growth rates. The growth rates assume a percentage of residential homes that are appropriate for rooftop solar PV. For Iberdrola USA, the assumed market potential includes 185,000 residential homes suitable for solar PV systems. For community scale solar, the model assumes 8,800 community solar PV systems of 500 KW. The model also assumes that 50% of the potential residential market and 20% of the potential community solar market will be built. Land required for each community scale solar installation is 2.5 acres.
- The unsubsidized system costs are based on historical data obtained from NYSERDA and are assumed to be $4,400 per KW for the residential systems and $3,400 per KW for community solar.

For both the individual and community scale solar, the assumed revenue opportunity includes a referral fee range: $240 to $500 per system as well as a share of PPAs between $0.01 per kilowatt-hour (kWh) and $0.02/kWh.

Figure 3: Pro Forma Income Statement

	Tompkins County		IUSA - New York									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Sales Forecast [Units Sold]												
Total Unit Sales	-	55	566	961	1,556	2,036	2,617	3,037	3,296	3,283	2,950	2,261
$ million												
Gross Revenue	-	0.09	0.37	0.98	1.80	2.73	3.97	5.44	7.04	8.44	9.56	10.32
Total O&M	-	0.35	0.50	0.87	1.44	1.93	2.59	3.15	3.59	3.71	3.50	2.90
EBITDA	-	(0.26)	(0.13)	0.11	0.36	0.80	1.38	2.28	3.45	4.73	6.06	7.42
Operating Income	-	(0.26)	(0.13)	0.11	0.36	0.80	1.38	2.28	3.45	4.73	6.06	7.42
Net Income	-	(0.16)	(0.08)	0.07	0.22	0.48	0.83	1.38	2.09	2.86	3.67	4.49

Note: The net present value of NYSEG and RG&E net income from 2015 to 2026 is $6.6 million.

ii. Leveraging Third-Party Capital

Third-party capital will be leveraged by using a coordinating market partner to manage the overall process and to scale the concept to other markets. Third-party capital will also be leveraged by partnering directly with service providers who will ultimately deliver solutions to customers. The project will explore community-based funding for DER projects where customers might lack access to traditional sources of capital. At scale there may be opportunities to integrate third-party financing of customer energy asset purchases.

c. Returns (ROI estimates, when self-sustaining etc)

The pro forma statement in Figure 3, above, contains an estimate of financial performance of the CEC program. Positive net income is expected to begin in 2018.

d. Cost Effectiveness

i. Benefits to Ratepayers, both Qualitative and Quantitative as Compared to the Cost

Based on the assumptions described above, our model indicates that the CEC project will be cost-effective beginning in 2018, assuming it is deployed at scale. As noted above, the CEC approach has the opportunity to scale both in geography and in the suite of products and financing offered.

CEC leverages a proven model of bulk-purchasing at a community level. This community-level coordination and purchasing has the opportunity to provide value for communities, customers, DER providers and for utilities.

- Increased DER penetration at lower cost: with community engagement and efficient utility marketing and branding, CEC is expected to increase DER penetration to customers that may not purchase PV directly from a DER provider.
- Self-funded community energy initiatives: coordinated planning and procurement efforts are expected to lower the overall costs of community energy initiatives. Lower costs and higher levels of engagement will support achievement of community sustainability and energy goals and reduce the overhead cost to support these initiatives. Community-level energy initiatives support local economic development, carbon reduction, and lower energy costs.

Distribution system benefits for all ratepayers: We plan for the coordinated planning process to address distribution system challenges using DER solutions. NYSEG can facilitate these solutions by virtue of its distribution system expertise and with its access to targeted customer information. To the degree that capital investments can be deferred or avoided due to the community-level DER solutions implemented through the CEC, all ratepayers would benefit from lower costs.

6. Reporting

a. Information to be Included in Quarterly Reports to the Commission

Quarterly reports to the Commission will include a description of progress toward project milestones, project cost performance (actual expenditures compared to budget), and the success metrics described in Section 4(a). In addition, quarterly reports will include lessons learned that will be applied during the remainder of the CEC project and in expansion projects. These lessons learned and final metrics will be summarized in the final evaluation report.

7. Conclusion

a. Post-Demonstration Benefits

i. Qualitative

The CEC program will accelerate the deployment of DER to targeted areas of the distribution system that are experiencing challenges that these resources may be able to address. By aggregating customer needs to a scale that will attract market partners, CEC will advance the REV policy goals of increasing system efficiency and placing additional tools and resources in the hands of customers.

ii. Quantitative

CEC will demonstrate the potential of a self-funded, replicable process to empower communities to achieve energy goals. The project will provide valuable information about customer engagement and aggregation levels, and will demonstrate market partners' abilities to generate savings at levels that will support a market for aggregated procurement of DER.

b. Plans to Scale

We are hopeful that the CEC program will demonstrate the effectiveness of an aggregated approach to resource and energy service acquisition. Our plans for scaling the program beyond Tomkins County, the initial geography for the project, will necessarily depend on indications of success in the program evaluations that will be conducted on an ongoing basis. We anticipate that geographic expansion would begin with the remainder of the NYSEG service territory after the first year, with a secondary expansion to the RG&E service territory as well. Furthermore, we will work with the other utilities in New York and in other states to communicate lessons learned from CEC that can be used to expand the penetration of DER.

In addition, we plan to leverage the experience we gain from the CEC program to expand the range of products and services that are made available to customers beyond traditional DER. We envision that subsequent programs will include energy intensive customer home products (e.g., innovative thermostats, heat pumps, water heaters, HVAC systems) and building energy management systems.

i. Break Points in Scaling

CEC will initially focus on Tompkins County, with the potential to expand in the future to additional areas within the NYSEG and RG&E service territories. If the CEC proves to be cost effective with its initial asset offerings during year one we will offer additional assets in Tompkins County and scale to an additional location in one of the service territories in the second year. If the CEC is successful and cost effective in a second community and with additional assets we will then consider scaling to multiple service areas in year three.

c. Advantage

The CEC program will demonstrate the value of community-level market coordination and procurement as a mechanism to achieve community energy goals. It will also test the viability of a new business model with the potential to provide a new source of revenue for the New York DSP operators.