Reforming the Energy Vision

Demonstration Project Q4 2017 Report

Community Energy Coordination



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1.0 Executive Summary

New York State Electric and Gas ("NYSEG" or "the Company") submits this quarterly report on the progress of the Community Energy Coordination (CEC) demonstration project. The CEC demonstration project attempted to reduce customer barriers to the adoption of distributed energy resources (DER).

Through the CEC project NYSEG marketed three different DERs; residential solar, community shared solar, and energy efficiency services, directly to its customers. Customers have been encouraged to go to an online services marketplace, called NYSEG YES Home Solutions, where they could gather information and connect with participating energy efficiency and community shared solar service providers, and receive competitive quotes from residential solar service providers.

This project provided a valuable opportunity to learn about the DER market including solar and energy efficiency service providers, consumer behavior, and community engagement. The project design was heavily influenced by input from stakeholders. It is evident that utility marketing is an effective way to inform customers about DER offerings as this project produced 543 leads in a six month period. For the service providers, pursuing these leads proved to be different than their normal course of business. The leads tended to be less refined than what they typically experience as leads are often based on direct referrals. This can be address either through adjusting the project design to further develop leads and filter out the less committed customers, or, working with the participating service providers to adjust their processes to accommodate the less refined leads.

At the end of Q3, on October 1, 2017 the project transitioned from being a REV demonstration to being part of the NYSEG Energy Smart Community with a new URL and additional project scope. This new iteration of the website, now called NYSEG Smart Solutions, includes an energy products marketplace along with the energy services that were offered through the CEC demonstration project. Future performance of NYSEG Smart Solutions will be reported through the quarterly Energy Smart Community status reports.

This document is serving as a final report of results for the CEC demonstration project.

1.1 Key Contributors

The Community Energy Coordination demonstration project involved collaboration between multiple entities. Key contributors included:

Community Advisory Board: This group was comprised of key stakeholders within Tompkins County, representing energy-related local government, businesses, non-profits and advocates. The Community Advisory Board was a sounding board and idea generator.

Taitem Engineering, PC: Local engineering firm with a trusted community presence, Taitem Engineering was a market partner and a key advisor throughout the CEC project.

Simple Energy: The heart of the CEC project was the online services marketplace developed by Simple Energy. The online marketplace served to connect customers with participating service providers.

EnergySage: Customers utilized the EnergySage platform to request, receive, and analyze competing solar quotes.

Participating Service Providers: The following companies were chosen as the initial group of contractors presented on the marketplace site.

Energy Efficiency Services

- Halco
- SnugPlanet
- The Insulation Man
- ZeroDraft

Residential and/or Community Solar Services

- ETM Solar Works
- Halco
- Solar Liberty
- Taitem Engineering
- Twin Tier Solar

2.0 Background

2.1 Project Origination

In response to the Commissions February 27, 2015 Order Adopting Regulatory Policy Framework, NYSEG submitted the initial proposal for the CEC project on July 1, 2015. After close collaboration with Department of Public Service Staff an implementation plan was filed on February 4, 2016.

The CEC project sought to reduce the cost and support increased adoption of DER by taking on various roles within the DER value chain including:

- Facilitating community input to ensure solutions are in support of community energy goals and identifying synergies with existing clean energy initiatives;
- Acting as a sales agent for DER service providers to leverage NYSEG's connection with customers; and
- Acting as a market coordinator to ensure customers are connected with DER service providers and other relevant information in a manner that supports an efficient DER market.

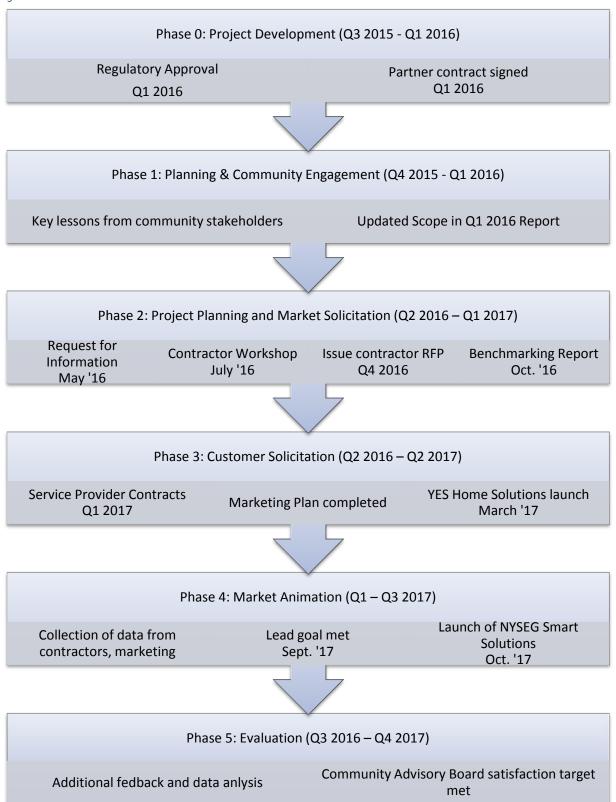
The first several months of the project were focused on gathering stakeholder input in order to refine the project model and to determine which DER's would be promoted. During Q1 2016, the CEC team conducted or attended over forty meetings with key stakeholders to gain perspective and information on DER's. Stakeholders included municipal officials, DER service providers, community organizations, energy industry organizations, and engaged individuals.

Based on stakeholder input the project scope was refined to include the promotion of three DER's: residential solar, community solar, and residential energy efficiency. NYSEG issued a Request for Information and later a Request for Proposals in order to identify and select participating DER providers and to establish the terms of participation.

NYSEG leveraged its existing relationship with Simple Energy to develop the online platform to connect customers with solar and energy efficiency service providers. Utilizing the existing energy efficiency marketing campaign "Y.E.S." (Your Energy Savings) the URL was established as www.yeshomesolutions.com.

2.2 Project Timeline: Highlights and Milestones

Figure 1: Phases and activities



As of October 1, 2017, the yeshomesolutions.com website was replaced with nysegsmartsolutions.com with updated design and content. This marked the close of the CEC demonstration project. All data presented in this report represents the period from March 21, 2017 through September 30, 2017.

2.3 Market Conditions

Tompkins County market facts:

Residential NYSEG Accounts: 35,029

Accounts with solar PV: 992

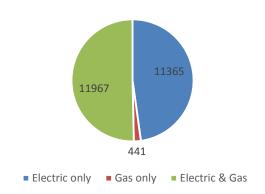
Estimated single family homes: 23,773

With solar PV: 921

 Average electric consumption in 2016 was 7,452 kWh for customers with electric and gas and 10,246 for customers with electric only.

 Average gas consumption in 2016 was 1,115 therms for customers with electric and gas and 1,031 for customers with gas only.

Figure 2: NYSEG single-family home customers (estimated)



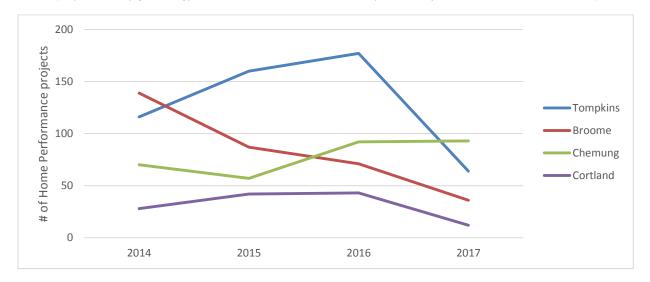
The market conditions during 2017 were in flux. There was some level of uncertainty of federal incentives, and energy prices have remained low. These conditions have contributed to less favorable payback periods for solar and energy efficiency.

In the energy efficiency services market, the mild winters of 2015 and 2016 have negatively impacted business. Figure 3 includes NYSERDA data for completed energy efficiency projects as part of the NYSERDA-funded Home Performance with ENERGY STAR program. For January through October 2017, in Tompkins county, the number of completed projects is down 32% and the value of completed projects is down 40% comparing 2017 to 2016 year-over-year results for the NYSERDA Home Performance Program

specifically for Tompkins County. Monthly results are down considerably in 2017 compared to both 2016 and 2015.

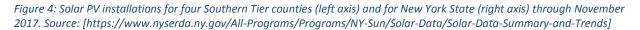
Figure 3: Count of completed projects for the One-to-Four Family Home Performance with ENERGY STAR Program through October 2017

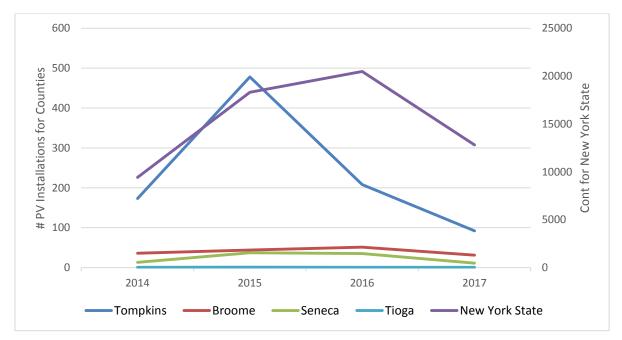
Source: [https://data.ny.gov/Energy-Environment/The-One-to-Four-Family-Home-Performance-with-ENERG/assk-vu73]



The trend of the Home Performance with ENERGY STAR Program in neighboring counties are important when assessing CEC project performance, determining future project design, and working with service providers. With Chemung county as the exception, all other counties, with Tompkins being the most dramatic saw an overall decrease in completed projects. The CEC project saw 83 assessments out of 258 leads, but with only 8 contracts signed to have energy efficiency work completed. One consideration described by one of the energy efficiency service providers is that some customers will receive an audit for their home but will wait a year or longer to contract for energy efficiency work so that the work can be budgeted to fit their cash flow.

There has been similar overall market decline for solar in Tompkins County.





Brome, Seneca, and Tioga counties are geographically close to Tompkins and are also within the NYSEG service territory. Installations over the last four years are seen here along with those for all of New York State. Installations for Tompkins County peaked in 2015 and have experienced a downward trend for 2016 and 2017.

3.0 Marketing

A variety of marketing tactics were used including local promotion at community events, postcards mailed to customers, and direct email marketing. There was a testing phase of the marketing emails where the first few rounds were sent to 1,000 customers in order to not overwhelm the participating contractors, in case there was a large response.

3.1 Postcards

Two different post card designs were used to market the program, one to promote solar PV services and one for energy efficiency services. A total of 20,000 postcards were mailed in four batches of 5,000. The postcards were primarily sent to customers without email address. A small portion of postcards went to customers with email addresses who also had high consumption over the last two years.



Figure 5: Energy Efficiency Postcard

(front)

Get your **FREE** Home Energy **ASSESSMENT**

Make your home more comfortable; reduce energy costs and lower your carbon footprint.

Like a doctor's check-up, a home energy assessment determines if your house is working at its best to keep you safe, comfortable and energy efficient. A home energy assessment analyzes how all the elements of your home work together to impact the amount of energy you use. At the end of the assessment, a contractor will provide you with a detailed plan outlining recommended projects to make your home more energy efficient.



YES Home Solutions P.O. Box 5224, Binghamton, NY 13902-5224





Sign up today at **Comfort.YESHomeSolutions.com**.



(back)

Figure 6: Energy Efficiency Postcard



(front)

YES Home Solutions P.O. Box 5224, Binghamton, NY 13902-5224

Now is the time to go **SOLAR!**

Generate your own electricity, lower your home energy costs and reduce your carbon footprint.

You now have multiple ways to go solar! With a traditional Residential Solar installation, you can power your home with electricity generated by solar panels mounted on your rooftop or property.

Alternatively, you can participate in a Community Shared Solar farm and power your home with lowcost solar energy generated from a local solar array. Both of these clean, renewable energy options have the benefit of saving you money on your monthly electricity costs.







Sign up today at Solar.YESHomeSolutions.com.



(back)

3.2 Email Marketing

Email marketing was the primary source of lead generation. Overall, there were 294,611 emails sent during the project, with 71,960 of those emails opened, and 3,911 "clicks" that resulted in a site visit. This is across the 20,003 Tompkins county email addresses available to NYSEG. A description of page views, users, and sessions can be found in the Results section. Below are examples of YES Home Solutions marketing emails.

Figure 7: Solar services promotional email (May 2017)





Take Advantage of the Summer Sun

Summer's on its way! Invest now in solar to let the sun's rays lower your electric bill all season long.

Choose between installing solar panels on your property or investing in a community shared solar array. Either way, going solar can drastically reduce or even eliminate your energy costs and shrink your carbon footprint.

Learn more about how you can generate energy for your home and sell excess to NYSEG.

Get the Facts

Figure 8: Solar services promotional email (April 2017)



As a Tompkins County resident, you're eligible for YES Home Solutions, NYSEG's new online portal for energy efficiency and solar energy services. Feel free to share with anyone in Tompkins County.



Solar Built for You

NYSEG knows there are many types of families and homes. For this reason, <u>YES Home</u>
<u>Solutions</u> gives you a few options for going solar - community solar or residential solar. Both options offer bill savings, but each features distinct benefits.

Compare Now

Add a home energy assessment to your checklist.

No Images? Click here





Step up Your Home Improvement

Spring is a great time for home improvement projects. Add a <u>no-cost home energy</u> <u>assessment</u> to your checklist. It will help you determine which projects you should tackle first and which are right for your budget.

Looking to increase your home's safety, comfort or efficiency? A home energy assessment will help you find your primary cause of concern and guide you on how to fix it.



What's included?

- Locate the sources of energy loss and safety risks in your home.
- Receive a tailored report outlining the findings and suggested next steps.
- Partner on a plan that is right for your home and family.

Learn More

3.3 Public Awareness

Customer communication was also delivered through various community engagement activities. These included presentations at local organization meetings such as Tompkins County Climate Protection Initiative, local newsletters, and tabling at community events such as Grass Roots Festival of Music and Dance, local independent cinema, during environmentally focused events, and the Ithacafest.

4.0 Results

This section includes results statistics from project launch on March 21, 2017 through September 30, 2017.

Page	Page views
Landing page	2857
Home Assessment	2520
Solar (home)	2332
Residential solar	1502
Community Solar	1274
About Us	533
FAQs	177
Contact Us	117

Table 1: Page view counts for various YES Home Solutions site pages

There was a total of 6,346 website sessions, with 5,047 unique users. There were 10,359 page views which eventually converted into 543 leads. Additional details are included below.

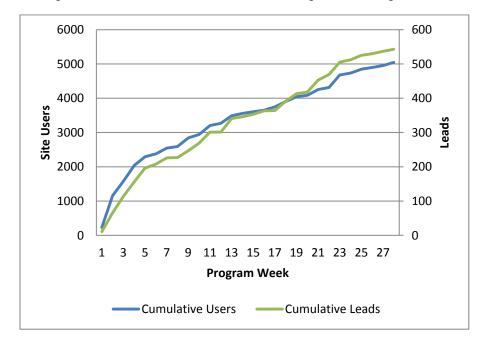


Figure 10: Cumulative YES Home Solutions site users against the leads generated.

The program goal of 500 leads was met around 21 weeks into the program. As can be seen in Figure 10, the leads tracked closely to the number of unique visitors to the YES Home Solutions site, which was driven mostly by the email marketing campaigns.

Table 2: Summary of main customer metrics over the six months of the YES Home Solutions program.

	Energy Efficiency	Residential Solar	Community Solar
# leads	258	171	114
# signed contracts	8	5	0
Revenue generated (\$)	\$2,285	\$1,750	\$0
Page views to lead	10.4	11.6	9.0
conversion (%)			

On average, each person on the mailing list received 17 emails through the program. In total, 10.8% of total unique site users became leads for service providers.

Customer feedback was gathered in July 2017 and later in November 2017. The July survey received 39 responses. Table 3 and Table 4 show results for three of the relevant questions. The results indicate a high level of interest in solar compared with energy efficiency services. Additionally, most customers would or might recommend YES Home Solutions to others while overall satisfaction with the site was squarely above three on a one to five scale.

Table 3: Results of July 2017 customer feedback survey – Customer Satisfaction

On a scale of 1 to 5, how satisfied were you with your experience on the YES Home Solutions website?			
Rating	Customer Count	% of total responses	
1 (least satisfied)	4	10 %	
2	1	3 %	
3	14	36 %	
4	9	23 %	
5 (most satisfied)	11	28 %	

Table 4: Results of July 2017 customer feedback survey – Customer Interest

Which services on the site interest you? Select all that apply.			
Answer chosen	Customer Count	% of total responses	
Community Solar	17	44 %	
Residential Solar	22	56 %	
Home Energy Assessment	14	36 %	
None of the Above	4	10 %	

Table 5: Results of July 2017 customer feedback survey – Recommend YES Home Solutions

Would you recommend YES Home Solutions to others?			
Answer chosen	Customer Count	% of total responses	

Yes	17	43 %
No	4	11 %
Maybe	16	46 %

The November survey specifically measured service provider satisfaction. There were 28 respondents and they showed positive feedback about the customer interactions with the service providers.

Table 6: Results of a customer feedback survey from November 2017 – Customer thoughts on service providers, where lower numbers indicated a lower rating for the quality being evaluated.

Rating by DER	Likely to recommend	Professionalism	Timeliness	Communication
Rating Scale	1 through 10	1 through 5	1 through 5	1 through 5
Average for	7.8	4.7	4.7	4.6
Energy Efficiency				
Average for Solar	8.9	4.9	4.9	4.9
Contractors				

5.0 Discussion

5.1 Community Engagement

The Community Advisory Board was designed to help the project align with community energy goals, and enhance synergies between this project and other energy initiatives in Tompkins County. Eight members were chosen for the Board and five remained active participants.

The Advisory Board served as an important resource by providing direct feedback and input to the project team. They provided perspective on how NYSEG is perceived in the community and helped identify how the design of the project could help achieve community energy and sustainability goals. They provided review and feedback on what DER's to promote, website design, and contractor selection criteria.

Overall, Board members were pleased to be in the conversation. The group would like to see a continuation of the service that NYSEG has provided in the CEC project and they are interested in seeing how conversion rates change over a longer period of time. They would also like to see opportunities for additional customer incentives and more robust consumer education.

5.2 Service Providers

The initial project design was heavily influenced by direct input from DER service providers. Service providers responded to an initial request for information and they later attended an in-person workshop where they provided input on how the program could create value for them. Participating service providers were then selected through a competitive solicitation.

Once the website was launched to customers there were a series of meetings with each group service providers (energy efficiency and solar). These feedback sessions allowed the project team to refine the approach of the marketplace while understanding the service provider experience over the course of the project.

On the marketplace website itself, each service provider described their company, their services, and provided a company logo. The participating service providers viewed this project as an extension of their overall advertising or lead generation activity. Being a pilot project, they could not significantly change any of their existing processes as part of their participation. In that sense it was difficult for them to identify how their participation in the project impacted their cost of customer acquisition. Instead, they can quantify the number of leads received through this project and are able to measure the conversion rates of those leads.

5.2.1 End of Program Feedback

End of Program feedback sessions were held with most service providers. Their input is summarized below.

Feedback from Energy Efficiency Service Providers

1. Has project met your expectations, why or why not?

Expectations were met, especially given the amount of energy related content Tompkins County customers are exposed to.

2. Is the overall structure effective?

Providers overall felt that the way the leads are delivered (via email) was acceptable. They were pleased that NYSEG provided marketing and awareness of the no cost NYSERDA audits. However, they identified some confusion for customers who previously received a NYSERDA audit expecting a second no-cost audit. Most service providers were able to resolve this with a simple explanation. One contractor identified this as a more significant issue. Service providers suggested a neighbor usage comparison as an opportunity to improve marketing. Service providers also expressed concern that Tompkins County residents are "just getting burned out" because of so much energy related communications.

3. Are there other products better suited for rebates than others?

One contractor believes that insulation rebates would serve customers well for those not eligible for Empower or the Home Performance program and thinks heating equipment rebates are important.

Feedback from Solar Service Providers

Residential Solar

1. Did the program meet your expectations? Why / Why not?; How does participation in the program differ from your normal sales cycle?

Some contractors expected higher conversion rates. For example, one provider had five site visits after responding to ninety quotes, while another had two out of fifty quotes. The service providers universally expressed an interest in having additional customer contact information. They agree that either meeting the customer or speaking on the phone greatly improves their sales process and their conversion rates.

Service providers identified inaccuracy with customer self-reported energy consumption which made it difficult to provide an accurate quote. The platform is designed to provide customers with quick and convenient quotes that they can compare side by side. The service providers are not convinced that this type of low touch quick quote is the most effective way to sell solar PV projects. The service providers requested additional ways to make a one-on-one connections with customers, such as being provided

with the customer phone number. Some service providers requested additional opportunities to differentiate themselves on the platform.

Several service providers suggested a modification to the platform where customers provide additional information up front and then the service providers decide if they want to provide a quote or not. They also encouraged additional educational information upfront in order to prime the customer with what they would hear from any of the contractors about payback period, and the solar PV purchasing process.

Contractors felt that the program did a good job reaching people that might not typically be thinking about solar PV.

2. Does the idea of an automatic quote (Cost per panel) resonate with you?

Service providers indicated that if an automatic quote were based on accurate load, it would be of interest and should be very easy to provide. With that said, multiple contractors expressed a preference to receive leads in a similar way as the Energy Efficiency and Community Shared Solar leads, via email without having to provide competing quotes.

3. What do you think about the overall model and design of the program?

The providers overall liked the marketing and customer communications.

As has been stated, the providers felt that if they would have had higher conversion rates if they could spend time with customers. The service providers agreed that the approach and platform encouraged so called "tire kickers."

4. Is there anything you would like to see changed with the program?

Some contractors requested that leads be invited to follow-up in-person informational meetings where the contractors could build a relationship with them. All contractors expressed a desire to have a way to contact a customer directly via phone after providing a quote.

Additional feedback

Several contractors indicated that this program would be more effective in other areas beyond Tompkins County since many Tompkins County residents have already been exposed to solar through various other programs.

Community Shared Solar

Community Shared Solar as a product was a less appealing choice to customers since the ownership model that was offered included a large investment with a 10+year payback. Industry research suggests that 7-10 years is a reasonable payback and that it takes 5-7 contacts for any one customer to sign up for community solar.

5.3 Customers

Based on customer survey responses and speaking with stakeholders the project was well received by customers. The project marketing material and website served as an informational and educational tool for customers. The project provided an easy way for customers to learn more about solar and energy efficiency and encouraged them to take a next step.

For solar PV, customers enjoyed being able to receive and compare quotes side by side with relatively little effort on their part. Customers were provided with insight into key elements of a solar installation and they were provided a sense of what the marketplace had to offer, including cost, warranty, financing, and payback. This value for customers did not necessarily translate to value for service providers as they wanted more customer interaction in order to convert quotes to sales. This could be addressed by providing customers with generic automatic quotes up front and only involving the service provider once a customer is ready to have a site visit.

For energy efficiency, customers were able to quickly and easily be connected with service providers. The marketing and communications efforts prompted customers to take the step to connect with service providers and begin thinking about their homes energy efficiency. Customers had little opportunity to differentiate between service provider offerings and typically chose a service provider based on geography. As with solar, the service providers found that the leads were less ready to make investments compared with their typical leads.

Overall, the CEC project proved to be a valuable customer education tool.

6.0 Budget Review



7.0 Conclusion

In the context of New York's Reforming the Energy Vision initiative, NYSEG sought to test a new model for creating value for customers, stakeholders, and DER providers, by taking on a new role in the DER value chain.

NYSEG sought to answer a few basic questions:

Will NYSEG's role as defined in the CEC scope increase adoption of DER and reduce service provider cost of customer acquisition? Can this scope be scaled to a broader population?

Overall, residential solar and energy efficiency activity in Tompkins County was down during 2017. With over 500 leads generated, this program without a doubt produced increased awareness of DER in Tompkins County. In particular, the communication channels used by NYSEG have a much greater reach than the typical communications channels deployed by DER service providers. Although activity was increased, the value of the leads produced has not yet been realized since the conversion rate from leads to sales has been low. The current low conversion rate was expected due to the long sales cycle for DER. More value could be created for service providers with a lower volume of high quality leads. The challenge for future iterations of this offerings is to balance the customer value proposition with the service provider value proposition.

At the conclusion of the CEC project we are left with additional questions:

- DER's are long lead time purchases. What will be the long-term conversion rates?
- Solar and energy efficiency are significant investments. How do multiple contacts over time influence decision making?
- How can the design of the marketplace and targeted marketing improve the quality of leads?
- Can the customer experience be improved by combining the functionality of this services marketplace with the functionality of the products marketplace that was previously implemented at RG&E?
- How can granular AMI data be leveraged to increase marketplace value for both customers and service providers?

These questions will be assessed, evaluated and answered as this service offering will continue to be offered to customers in Tompkins County.

As of October 1, 2017, YES Home Solutions became NYSEG Smart Solutions and is now operated as part of NYSEG's broader Energy Smart Community initiative. Changes include a new URL, nysegsmartsolutions.com, site redesign, and the inclusion of energy-related products available on the site. Customers can also now directly enroll in Demand Response programs when purchasing a smart

thermostat. Soon, customers will be able to access Green Button Connect My Data to directly and securely supply service providers with their electric and gas consumption data enabled by the recent installation of advanced metering infrastructure. Customers are now better served due to increased data from smart meters and analysis of their current consumption. As part of the Energy Smart Community, and no longer a demonstration project, the marketing efforts for NYSEG Smart Solutions will increase. In addition, the NYSEG Smart Solutions website will be integrated with the website customers use to view their smart meter data. Customer will be able to review tips and recommendations based on their energy consumption, which will then direct them back to NYSEG Smart Solutions to access products or the local contractor services.

NYSEG Smart Solutions will continue to work with DER service providers to identify ways to improve the next iteration of this market offering.