



**NYSERDA**

# **Clean Energy Fund Quarterly Performance Report through June 30, 2017**

**Final Report**

August 2017

## **NYSERDA's Promise to New Yorkers:**

NYSERDA provides resources, expertise, and objective information so New Yorkers can make confident, informed energy decisions.

### **Mission Statement:**

Advance innovative energy solutions in ways that improve New York's economy and environment.

### **Vision Statement:**

Serve as a catalyst – advancing energy innovation, technology, and investment; transforming New York's economy; and empowering people to choose clean and efficient energy as part of their everyday lives.



**Clean Energy Fund  
Quarterly Performance Report  
through June 30, 2017**

*Final Report*

Prepared by:

**New York State Energy Research and Development Authority**

Albany, NY

August 2017

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# 1 Overview

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The Clean Energy Fund (CEF) was designed to deliver on New York State’s commitment to reduce ratepayer collections, drive economic development, and accelerate the use of clean energy and energy innovation.

The CEF supports Governor Andrew M. Cuomo’s Clean Energy Standard mandate that requires 50 percent of the State’s electricity to come from renewable energy sources by 2030, while reshaping energy efficiency, clean energy, and energy innovation programs.

The CEF offers solutions to:

- Reduce greenhouse gas emissions through increased efficiency and use of renewable energy.
- Make customer energy bills more affordable, delivering \$39 billion in customer bill savings over the life of the CEF.
- Accelerate growth of the State’s clean energy economy.
- Mobilize private investment, leveraging \$29 billion over the life of the CEF.
- Provide more value to the customer while reducing ratepayer collections by \$1.5 billion by 2025.

The CEF Order was issued on January 21, 2016.<sup>1</sup> This order required quarterly reporting for the Market Development and Innovation and Research Portfolios about:

- Progress against the initiative-specific milestone.
- CEF goal metric schedules outlined in the Investment Plan Chapters.
- Tracking of expenditures and commitments against their prospective budgets.

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<sup>1</sup> Case 14-M-0094 – *Proceeding on Motion of the Commission to Consider a Clean Energy Fund*, Ordering Authorizing the Clean Energy Fund Framework. Issued and effective January 21, 2016.

This report represents quarterly and cumulative activity through June 30, 2017 and achievements of all programs approved prior to or during the reporting period. This includes the transition programs that were included in the Resource Acquisition Chapter as well as new initiatives in the Market Development and Innovation and Research Chapters. See Appendix A for the Department of Public Service (DPS) case number/reference and effective date of these initiatives.

As of June 30, 2017, the Clean Energy Fund's Transitional Programs have been in operation for 16 months (approved as of February 29, 2016) and the first wave of new initiatives, for thirteen months (approved as of May 23, 2016). The most recent approvals came only two weeks prior to the end of the quarter and included modifications to a number of initiatives to more appropriately reflect their ramp-up periods. The progress of these initiatives are represented throughout the report, and the following table gives insight into each initiative's status beyond what the reported numbers convey during this period. In most cases, launched initiatives are achieving the progress anticipated, and where they are not, NYSERDA has made programmatic adjustments to accelerate progress.

**Table 1. Key Insights, Progress, and Adjustments per Initiative Under Consideration**

Initiative	Key Insights, Progress, and Adjustments under Consideration
<b>Resource Acquisition Transition</b>	
<p>Table 7: Commercial Resource Acquisition Transition and FlexTech</p> <p>Approval Date: February 29, 2016                      Launch Date: March 1, 2016                      Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>Commercial Implementation Assistance, a program designed to complement utility programs in buying down costs of energy efficiency measures, was closed April 30, 2017. Customers are successfully utilizing utility program offers.</li> <li>FlexTech is lagging forecasts, but is projected to achieve overall program targets as activity accelerates. Companies such as energy service providers and engineering firms, that had leveraged FlexTech under the prior Energy Efficiency Portfolio Standard (EEPS) rules, are reincorporating the program into their business development cycle.</li> <li>Goals in Table 7 include combined FlexTech and Commercial Implementation Assistance Programs. When the Commercial Implementation Program closed at the end of April 2017 there were approximately 20 applications remaining to be reviewed. Revised goals included in the July 17 refiling assumed approval of the 420 applications; after the review, the program will proceed with only two projects. Therefore, goals will not be met. Assessment is under way to determine if FlexTech will be able to attain the combined goal.</li> </ul>
<p>Table 8: Industrial Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016                      Launch Date: March 1, 2106                      Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>The program is exceeding most targets but is slightly behind on MWh target progress. Overall program targets are projected to be achieved.</li> </ul>
<p>Table 9: Agriculture Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016                      Launch Date: March 1, 2016                      Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>While the program looks to be achieving progress against targets at an accelerated pace, it is anticipated that the program activity may subside during Q3 as farms owners historically focus on their business during this time.</li> <li>The large increase in MMBtu savings is a result of targeted outreach to the greenhouse marketplace.</li> </ul>
<p>Table 10: Multifamily Market-Rate Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016                      Launch Date: May 19, 2016                      Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>Due to a lack of market uptake, the Targeted Option of the Multifamily Performance Program (MPP) – Market-Rate program will be closed in August 2017.</li> <li>A High-Performance Offering that was intended to be offered, but had not yet launched has been transferred to the Low-to-Moderate Income (LMI) Chapter and will exclusively serve LMI customers.</li> </ul>

**Table 1 continued**

<b>Initiative</b>	<b>Key Insights, Progress, and Adjustments under Consideration</b>
<b>Resource Acquisition Transition</b>	
<p>Table 11: Single-Family Market-Rate Resource Acquisition</p> <p>Approval Date: February 29, 2016                      Launch Date: March 1, 2016                      Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>The program is achieving progress against targets at a slightly slower pace than planned. Market actors indicate low energy prices and financing challenges as the reasons for the slowdown in demand.</li> </ul>
<p>Table 12: Commercial New Construction Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016                      Launch Date: March 1, 2016                      Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>The program is performing well and is achieving targets at a faster pace than planned. NYSERDA modified the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets.</li> </ul>
<p>Table 13: Low-Rise New Construction Market-Rate Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016                      Launch Date: March 1, 2016                      Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>The program is performing well, having exceeded most of the cumulative current targets.</li> </ul>
<p>Table 14: Low-Rise New Construction Low-to-Moderate Income Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016                      Launch Date: March 1, 2016                      Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>The program is performing well, having exceeded most of the cumulative current targets.</li> </ul>
<p>Table 15: Multifamily New Construction Market-Rate Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016                      Launch Date: August 8, 2016                      Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>The program has not yet achieved targets per plan; however, program participation in 2017 is expected to increase based on the reauthorization of the New York City Property Tax abatement.</li> </ul>

**Table 1 continued**

Initiative	Key Insights, Progress, and Adjustments under Consideration
<b>Resource Acquisition Transition</b>	
<p>Table 16: Multifamily New Construction Low-to-Moderate Income Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016            Launch Date: August 8, 2016            Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>The program has not yet achieved targets per plan; however, program participation in 2017 is expected to increase based on the reauthorization of the New York City Property Tax abatement.</li> </ul>
<p>Table 17: Anaerobic Digesters Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016            Launch Date: July 8, 2016</p>	<ul style="list-style-type: none"> <li>The program is lagging progress against targets.</li> <li>NYSERDA launched the Anaerobic Digester Resource Acquisition transition program in 2016 as a first-come, first-served formula-based incentive program, consistent with the prior Renewable Portfolio Standard Customer-Sited Tier program. A total of \$4 million was committed in 2016, representing two projects and 1.13 MW. NYSERDA intends to propose a pivot to the format of the program in 2017 to a competitive selection format in an effort to strategically source pilot projects that have the potential to yield improved economic value and thereby proceed with reduced incentives from ratepayers.</li> </ul>
<p>Fuel Cells Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p>	<ul style="list-style-type: none"> <li>NYSERDA did not move forward with the Fuel Cell Resource Acquisition Transition Program as originally planned. NYSERDA is currently working with stakeholders and equipment vendors and evaluating options for the fuel cell market and will reflect fuel cell activities in a future revision.</li> </ul>
<p>Table 18: Small Wind Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016            Launch Date: March 1, 2016</p>	<ul style="list-style-type: none"> <li>The program has not achieved targets according to plan due to smaller sized projects and fewer developers than anticipated.</li> </ul>
<p>Table 19: Solar Thermal Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016            Launch Date: March 1, 2016            Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>The program is achieving most targets according to plan.</li> </ul>

**Table 1 continued**

Initiative	Key Insights, Progress, and Adjustments under Consideration
<b>Resource Acquisition Transition</b>	
<p>Table 20: Combined Heat and Power (CHP) Resource Acquisition Transition and Power</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016</p>	<ul style="list-style-type: none"> <li>The PSC's extension of the Indian Point Energy Center Demand Management Program (IPEC/DMP) fund eligibility (to December 31, 2016) enabled NYSERDA to expand funding available to CHP projects but will extend the timeline for achieving CEF targets, given the allocation methods used for the two programs. Collectively, 54.5 MW of CHP commitments have been approved through June 30, 2017, of which 19.5 MW are associated with IPEC/DMP funds and 35 MW with the CEF.<sup>2</sup></li> </ul>
Market Development	
<p>Tables 22-23: Real Estate Tenant</p> <p>Approval Date: May 23, 2016 Launch Date: July 19, 2016 Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>The initiative is on track to achieve implementation milestones.</li> <li>The program is lagging progress against revised targets; however, program modifications that take effect August 1 should result in significant market uptake in Q3 and Q4 of 2017 so that the program is able to achieve end of year 2017 targets.</li> </ul>
<p>Table 24-25: Real-Time Energy Management (RTEM)</p> <p>Approval Date: May 23, 2016 Launch Date: June 20, 2016 Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>Development of a technical guidance document and training for operators originally planned for 2016 has been postponed to 2018 based on market feedback. After consulting with market providers, customers, and industry experts, it was recommended that these milestones be postponed until project-level data has been obtained.</li> <li>All other milestones are on track.</li> <li>Participation by service providers and pipeline of potential projects is robust and proceeding according to plan.</li> <li>Incentives and building-size eligibility were adjusted based on market feedback.</li> <li>The program is lagging progress against revised targets; however, program changes enacted in Q2 and Q3 of 2017 should result in significant market uptake in Q3 and Q4 of 2017, so that the program should be able to achieve end of year 2017 targets.</li> </ul>
<p>Tables 26-27: Reforming the Energy Vision (REV) Campus Challenge</p> <p>Approval Date: May 23, 2016 Launch Date: December 21, 2016 Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>The program is on track to achieve milestones.</li> <li>The program reached more than 50% of its 2025 participant target.</li> </ul>

<sup>2</sup> This accounts only for those projects receiving CEF or CEF/IPEC funds (contracts initiated after 4/1/16) and does not include projects with SBC4/IPEC funds initiated prior to 4/1/16. Also, as NYSERDA's authority to commit IPEC funds expired on 12/31/16, all projects supported after 1/1/17 will be fully funded by the CEF until funds are exhausted (notably, between 4/1/17 and end of Q2 of 2017, an additional net of 1.5 MW of commitments with CEF funds occurred, and minor attrition of IPEC/DMP commitments occurred, thus bringing the Q2 of 2017 total to 54.5 MW, consisting of 19.5 MW associated with IPEC/DMP and 34.9 MW with CEF).

**Table 1 continued**

Initiative	Key Insights, Progress, and Adjustments under Consideration
<b>Market Development</b>	
<p>Tables 28-29: Continuous Energy Improvement On-Site Energy Manger</p> <p>Approval Date: May 23, 2016                      Launch Date: September 12, 2016                      Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• Seven participants for the first pilot have been contracted and initial energy savings estimations are in the process of being further developed during Q3.</li> <li>• Planning to launch the second pilot in Q3 and modify offering based on market feedback.</li> </ul>
<p>Tables 20-31: Continuous Energy Improvement Strategic Energy Management</p> <p>Approval Date: May 23, 2016                      Launch Date: November 22, 2016                      Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• Eight participants were selected for the first Strategic Energy Management (SEM) pilot and SEM coaching will begin in Q3 2017. Initial kick-off meetings with each participant are occurring and baselines for their annual energy use are being developed.</li> </ul>
<p>Tables 32-33: Clean Energy Communities Initiative</p> <p>Approval Date: May 23, 2016                      Launch Date: August 3, 2016                      Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• Since the launch in August 2016, there has been strong interest among communities including 529 High-Impact Actions, 394 of which were completed after the program launch (considered 'new') from 199 communities, 83 of which have been formally designated Clean Energy Communities.</li> <li>• While the program is generally on track, reported results represent a lag in expected energy benefits from current projections due to timing of contracting (formally committing funding) with designated communities. Savings should better align with targets by the end of the calendar year.</li> </ul>
<p>Tables 34-35: Offshore Wind Master Plan</p> <p>Approval Date: May 23, 2016                      Launch Date: September 15, 2016</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• Blueprint completed and published.</li> <li>• Stakeholder engagement commenced.</li> </ul>

**Table 1 continued**

Initiative	Key Insights, Progress, and Adjustments under Consideration
<b>Market Development</b>	
<p>Tables 36-37: Offshore Wind Pre-Development</p> <p>Approval Date: May 23, 2016 Launch Date: December 12, 2016</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• Planning underway for procurements and cost analysis.</li> <li>• Launched site-specific environmental and sea floor studies.</li> </ul>
<p>Tables 38-39: REV Connect</p> <p>Approval Date: May 23, 2016 Launch Date: August 9, 2016 Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>• The REV Connect website platform is undergoing testing and is expected to launch later in the summer of 2017 to allow submission of project ideas as well as to post resources that enable companies to tailor their solutions to the REV market.</li> <li>• Contractor selected, information resources completed, and project evaluation criteria and process developed. Resources will be broadly available to the market upon launch of the REV Connect website.</li> </ul>
<p>Tables 40-41: Reducing Barriers to Energy Storage Deployment</p> <p>Approval Date: August 17, 2016 Launch Date: November 7, 2016 Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• Solicitation for technical assistance contractors issued and four firms selected; work is underway on soft cost reduction. Initial battery safety testing completed and report published.</li> <li>• Value-stacking pilot solicitation released in April 2017.</li> </ul>
<p>Tables 42-43: Electric Vehicles Rebate</p> <p>Approval Date: August 17, 2016 Launch Date: March 21, 2017 Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>• Rebate program launched March 21, 2017. Through June 2017, NYSERDA provided over 1,200 rebates for EVs, which will result in 575,000 fewer gallons of gasoline used each year.</li> </ul>
<p>Tables 44-45: Greenhouse Lighting and Systems Engineering (GLASE)</p> <p>Approval Date: September 15, 2016 Launch Date: January 1, 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• Consortium Business Plan is in development.</li> </ul>
<p>Tables 46-47: RetrofitNY</p> <p>Approval Date: August 31, 2016 Launch Date: April 4, 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• NYSERDA is finalizing the strategy to engage design teams and building owners through a solicitation to procure deep energy retrofit solution designs. The solicitation is under development and is anticipated to be released Q3 2017.</li> </ul>

**Table 1 continued**

Initiative	Key Insights, Progress, and Adjustments under Consideration
<b>Market Development</b>	
<p>Tables 48-49: REVitalize</p> <p>Approval Date: August 31, 2016 Launch Date: June 27, 2017</p>	<ul style="list-style-type: none"> <li>• A solicitation to fund five Community-Based Organizations to plan and develop a community scale clean energy project launched on June 27, 2017, with a due date of September 11, 2017.</li> <li>• Market research to support the development of toolkits to aid in the planning of community-scale clean energy projects is underway.</li> </ul>
<p>Tables 50-51: Low-Income Forum on Energy</p> <p>Approval Date: August 31, 2016 Launch Date: August 31, 2017</p>	<ul style="list-style-type: none"> <li>• A scoring committee meeting was held on April 13, 2017 to review proposals to the solicitation for program implementation support.</li> <li>• A series of seven LIFE 2017 Regional Meetings was held throughout May 2017. In total, there were 445 participants in attendance, representing 236 organizations.</li> <li>• The program is exceeding the participant target through Q2 2017.</li> </ul>
<p>Table 52: Healthy Homes Feasibility Study</p> <p>Approval Date: August 31, 2016 Launch Date: January 20, 2017</p>	<ul style="list-style-type: none"> <li>• The feasibility study is under contract and work is underway with anticipated completion in Q3 2017.</li> <li>• Pending completion of the feasibility study, the pilot design phase is anticipated during Q4 2017.</li> </ul>
<p>Table 53-54: Industry Partnerships</p> <p>Approval Date: September 15, 2016 Launch Date: January 13, 2017 Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve most implementation milestones.</li> <li>• An open enrollment solicitation (PON 3442), offering incentives to employers of building operations and maintenance staff who seek to develop a culture of continuous development specific to energy efficiency best practices was first issued on January 13, 2017 and was reissued on April 27, 2017.</li> <li>• Contracts under PON 3442 are being negotiated.</li> </ul>
<p>Tables 55-56: Community Energy Engagement</p> <p>Approval Date: March 27, 2017 Anticipated Launch Date: Q3 2017</p>	<ul style="list-style-type: none"> <li>• A Request for Proposal (RFP 3588) to solicit ten locally-based organizations that will provide services in support of the Community Energy Engagement Program was issued on May 2, 2017 with proposals due June 20, 2017.</li> <li>• Contracts under RFP 3588 will be negotiated during Q3 2017.</li> </ul>
<p>Tables 57-58: Underutilized Products Support</p> <p>Approval Date: May 16, 2017 Anticipated Launch Date: Q3 2017</p>	<ul style="list-style-type: none"> <li>• Open enrollment solicitation offering incentives to midstream HVAC market actors for Air-Source Heat Pumps (ASHPs) will be issued in Q3 2017. Additional interventions are under development for 2018 and beyond.</li> </ul>

**Table 1 continued**

<b>Initiative</b>	<b>Key Insights, Progress, and Adjustments under Consideration</b>
<b>Market Development</b>	
<p>Tables 59-60: Renewable Heat NY</p> <p>Approval Date: May 16, 2017 Launch Date: May 9, 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> </ul>
<p>Tables 61-62: Heat Pumps and Solar Thermal</p> <p>Approval Date: May 16, 2017 Launch Date: May 30, 2017</p>	<ul style="list-style-type: none"> <li>• An open enrollment solicitation (PON 3620) which provides rebates to designers and installers for the installation of Ground Source Heat Pump Systems was released on May 30, 2017.</li> <li>• Qualified GSHP designers, installers, and drillers are listed on NYSERDA's website</li> <li>• NYSERDA intends to evaluate and address the needs in the Solar Thermal market through a revision to the Heat Pumps and Solar Thermal Investment Plan, within the Renewable Heating and Cooling Chapter.</li> </ul>
<p>Table 63-64: Low-to-Moderate Income Multifamily Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: May 19, 2016 Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>• The program has been redesigned for simplicity and market appeal. NYSERDA has worked extensively with key market participants to address these issues, and the new version of the program was launched in July 2017.</li> </ul>
<p>Tables 65,67: Low-to-Moderate Income Single-Family Low-Income Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016 Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>• The program is achieving most targets according to plan.</li> </ul>
<p>Tables 66-67: Low-to-Moderate Income Single-Family, Moderate-Income Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016 Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>• The program is achieving most targets according to plan.</li> </ul>

**Table 1 continued**

<p>Tables 68-69: Energy Management Information Systems</p> <p>Approval Date: June 23, 2017 Anticipated Launch Date: Q3 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• NYSERDA is in the process of incorporating Industrial Energy Management Information Systems (EMIS) into current RTEM solicitation which will offer a holistic approach to the energy management marketplace in Q3 2017.</li> </ul>
<p><b>Innovation and Research</b></p>	
<p>Tables 71-72: Distributed Energy Resource (DER) Interconnection</p> <p>Approval Date: May 23, 2016 Launch Date: October 20, 2016</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• Contracted with Electric Power Research Institute (EPRI) to analyze technology gaps and create a roadmap.</li> <li>• Mobilized several research/technology consulting firms to provide technical support for DER interconnection improvements in NYS.</li> <li>• Launched a competitive program funding opportunity focused on innovation to reduce DER interconnection burdens in NYS (October 2016).</li> <li>• Developing model for collaboration between NYSERDA, DPS, New York Power Authority (NYPA), utilities, and grid-tech companies to ensure road-map work is compatible with and complimentary to the development of the Distribution System Implementation Plans (DSIPs). This work will intensify in Q4 as DSIPs are made available.</li> </ul>
<p>Tables 73-74: High-Performing Grid Modernization</p> <p>Approval Date: May 23, 2016 Launch Date: September 16, 2016 Refiling Approval Date: July 17, 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• In addition to the progress noted above in the related DER Interconnection area, NYSERDA issued a competitive program funding opportunity focused on innovation to advance high-performing grid modernization (October 2016).</li> </ul>
<p>Tables 75-78: Cleantech Startup Growth</p> <p>Approval Date: May 23, 2016 Launch Date: October 12, 2016</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• Strong response from the competitive program funding opportunity for clean energy incubators. Contract negotiations with the selected projects began in Q1 2017 and are expected to fully conclude in early Q3 2017. The second and final round of the clean energy incubators solicitation opens August 30, 2017 and proposals are due October 25, 2017.</li> <li>• NYSERDA intends to modify the Cleantech Start-up Growth investment plan in order add additional, complementary strategic components to the initiative, including an enhanced entrepreneurs-in-residence mentoring program and a set of activities focused on investor, corporate/strategic partner, and customer engagement.</li> </ul>

**Table 1 continued**

Initiative	Key Insights, Progress, and Adjustments under Consideration
<b>Innovation and Research</b>	
<p>Tables 77-78: NextGen HVAC</p> <p>Approval Date: August 17, 2016</p> <p>Launch Date: June 28, 2017</p>	<ul style="list-style-type: none"> <li>• A Request for Information (RFI 3410) was issued in January 2017, seeking input from the stakeholder and innovation community regarding research and study needs associated with development of the next generation of heating, ventilation, and air conditioning systems (HVAC). Input received was used to formulate a series of HVAC technology challenges.</li> <li>• NextGen HVAC Technology Challenge solicitation (PON 3519) developed and released on June 28, 2017. Technology challenge areas that include the following: cold climate air source heat pumps, advanced HVAC controls, compressor-less cooling technology, and solutions for cost reduction of the ground source heat exchanger (GHEX) associated with a Ground Source Heat Pump System. This is the first of four planned technology challenges.</li> <li>• Projects from the First Technology Challenge will be selected and awarded in Q4 2017.</li> </ul>
<p>Tables 79-80: Electric Vehicle Innovation</p> <p>Approval Date: August 17, 2016</p> <p>Anticipated Launch Date: Q3 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• Initial development of 2017 offering underway.</li> </ul>
<p>Tables 81-82: Manufacturing Corps</p> <p>Approval Date: February 13, 2017</p> <p>Launch Date: June 29, 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• A pilot program solicitation to test a regional approach to supporting the scale up of manufacturing in cleantech startup companies launched June 29, 2017.</li> </ul>
<p>Tables 83-84: Energy Related Environmental Research</p> <p>Approval Date: February 13, 2017</p> <p>Launch Date: February 15, 2017</p>	<ul style="list-style-type: none"> <li>• The program is on track to achieve implementation milestones.</li> <li>• The program is currently lagging private investment and participant goals; however, the majority of the budgeted funds are designated for long-term monitoring projects which expire at the end of 2017. The goal is to renew and contract these monitoring activities in the coming months and achieve current targets by the end of 2017.</li> </ul>
<p>Tables 85-86: Renewables Optimization</p> <p>Approval Date: March 27, 2017</p> <p>Launch Date: June 21, 2017</p>	<ul style="list-style-type: none"> <li>• On track to achieve milestones.</li> <li>• Energy storage technology and product development solicitation launched June 21, 2017.</li> <li>• NYSERDA is in the process of exploring investment plan modifications to add additional strategic components to the program.</li> </ul>

This report reflects direct benefits from participation in NYSERDA’s programs, as shown in the following tables. Indirect benefits are not reflected because it will take time for the benefits to be realized.

**Table 2. CEF Minimum Projected Benefits 2016-2025 and Progress to Date, Commitment Basis (in millions)<sup>3, 4, 5, 6, 7,8</sup>**

		Cumulative Annual Benefits		Lifetime Benefits	
		Cumulative Progress through June 30, 2017	Minimum Projected Benefits 2016-2025	Cumulative Progress through June 30, 2017	Minimum Projected Benefits 2016-2025
Energy Efficiency	MWh	0.56	10.6	8.32	*
	MMBtu	4.17	13.4	64.76	*
	MW	0.00005	*	0.00005	*
Renewable Energy	MWh	0.014	*	0.17	88
	MW	0.000005	*	0.000005	*
CO2 Emission Reductions (metric tons)		0.52	*	7.93	133
Customer Bill Savings (\$ million)		\$89.53	*	\$1,376.75	\$39,131
Private Investment (\$ million)		\$803.56	*	\$803.56	\$29,356

\* Metric to be tracked and reported, though specific target was not ordered.

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- <sup>3</sup> The Renewable Energy Minimum Project Benefits Target is based on the estimated benefits of NY-Sun, which are separately reported. As of June 30, 2017, NY-Sun has contributed 42,903,400 Lifetime MWh toward this target.
- <sup>4</sup> The Private Investment, Customer Bill Savings and CO<sub>2</sub> Emission Reduction targets includes estimated benefits from NY-Sun and NY Green Bank. This information will be reported on an annual basis.
- <sup>5</sup> Bill savings represent savings for participants of NYSEERDA programs.
- <sup>6</sup> Cumulative Current Annual Targets for the initial Resource Acquisition Transition Chapter were rounded to the nearest 1,000. NYSEERDA will update these to round to three significant figures, consistent with subsequent filings when that chapter is next filed.
- <sup>7</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected, as it will take time for the benefits to be realized.
- <sup>8</sup> Beginning with Q4 2016, NYSEERDA updated emission factors for natural gas, #2 oil, #6 oil, kerosene, propane, wood, and steam to be consistent with emission factors used in the updated NYS Greenhouse Gas Inventory (<https://www.nyserda.ny.gov/About/Publications/EA-Reports-and-Studies/Energy-Statistics>). These factors are derived from EPA’s February 2016 State Inventory Tool release (<https://www.epa.gov/statelocalclimate/state-inventory-and-projection-tool>). Steam emission factors have been updated to be consistent with New York City’s updated Greenhouse Gas Inventory ([http://www1.nyc.gov/assets/sustainability/downloads/pdf/publications/NYC\\_GHG\\_Inventory\\_2014.pdf](http://www1.nyc.gov/assets/sustainability/downloads/pdf/publications/NYC_GHG_Inventory_2014.pdf)).

**Table 3. Market Development and Innovation and Research Portfolio Level Budgets and Spending<sup>9</sup>**

Initiative	PSC Ordered Program Budget Funds <sup>a</sup>	Budget Approved as of June 30, 2017 <sup>b</sup>	% of Ordered Budget Funds Approved <sup>c</sup>	Expended Funds <sup>d</sup>	Open Encumbrances <sup>e</sup>	Contract Pre-Encumbrances <sup>f</sup>	Committed Funds <sup>g</sup>	% of Approved Budget Committed <sup>h</sup>	Budget Approved Remaining Balance <sup>i</sup>
<b>Market Development</b>									
Program Funds									
NYS Cost Recovery Fee	\$2,386,760,624	\$903,414,112	38%	\$61,726,158	\$54,381,616	\$66,276,409	\$182,384,184	20%	\$721,029,929
<b>Innovation &amp; Research</b>									
Program Funds									
NYS Cost Recovery Fee	\$629,833,404	\$243,962,208	39%	\$663,065	\$3,080,403	\$15,290,115	\$19,033,583	8%	\$224,928,625
<b>Administration</b>	\$273,601,311	\$105,110,521	38%	\$25,435,544	\$558,138	\$98,488	\$26,092,170	25%	\$79,018,351
<b>Evaluation</b>	\$130,020,000	\$34,166,136	26%	\$529,969	\$2,591,343	-	\$3,121,312	9%	\$31,044,824
<b>Total</b>	<b>\$3,420,215,339</b>	<b>\$1,286,652,977</b>	<b>38%</b>	<b>\$88,354,737</b>	<b>\$60,611,500</b>	<b>\$81,665,012</b>	<b>\$230,631,249</b>	<b>18%</b>	<b>\$1,056,021,729</b>

- <sup>a</sup> CEF Order authorized CEF funding
- <sup>b</sup> Funds approved by DPS as of June 30, 2017.
- <sup>c</sup> Percentage of the approved budget.
- <sup>d</sup> Invoices processed for payment by NYSERDA.
- <sup>e</sup> Remaining funding obligated under a contract, purchase order or incentive award.
- <sup>f</sup> Planned funding for contracts awarded and under negotiation.
- <sup>g</sup> Sum of Expended Funds, Open Encumbrances and Contract Pre-Encumbrances.
- <sup>h</sup> Percentage of the committed budget.
- <sup>i</sup> Difference between Budget Approved Funds and Committed Funds.

<sup>9</sup> NYSERDA has pre-encumbered an additional \$45.7 million to solicitations with upcoming due dates that are not shown in the above table. When including these funds, NYSERDA has committed 21 percent of the total approved total budget to date. Committed benefits presented in this report do not include benefits associated with awards made as a result of these solicitations.

**Table 4. Market Development, Innovation, and Research Portfolio Committed Benefits Progress to Date - Annual<sup>10, 11, 12, 13</sup>**

Initiative	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Annual Target Through Q2 2017	% of Cumulative Annual Target Through Q2 2017	Total Cumulative Annual Target through 2025	% of Total Cumulative Annual Target through 2025
<b>Market Development</b>									
Energy Efficiency (MWh)	21,177	9,189	30,366	528,672	559,039	595,300	94%	2,379,000	23%
Energy Efficiency (MMBtu)	308,405	154,933	463,339	3,706,167	4,169,506	3,150,500	132%	17,620,000	24%
Energy Efficiency (MW)	0.1	-	0.1	49	49	*	-	*	-
Renewable Energy (MWh)	3,808	943	4,751	8,844	13,595	*	-	*	-
Renewable Energy (MW)	3	0.4	3	2	5	*	-	*	-
CO2e Reductions (metric tons)	30,585	13,119	43,705	479,210	522,915	*	-	*	-
Customer Bill Savings (\$ million)	\$6.97	\$2.50	\$9.48	\$80.06	\$89.53	*	-	*	-
Private Investment (\$ million)	\$47.15	\$59.83	\$106.98	\$545.91	\$652.89	*	-	*	-
<b>Innovation and Research</b>									
Energy Efficiency (MWh)	-	-	-	-	-	*	-	*	-
Energy Efficiency (MMBtu)	-	-	-	-	-	*	-	*	-
Energy Efficiency (MW)	-	-	-	-	-	*	-	*	-
Renewable Energy (MWh)	-	-	-	-	-	*	-	*	-
Renewable Energy (MW)	-	-	-	-	-	*	-	*	-
CO2e Reductions (metric tons)	-	-	-	-	-	*	-	*	-
Customer Bill Savings (\$ million)	-	-	-	-	-	*	-	*	-
Private Investment (\$ million)	-	-	-	\$150.67	\$150.67	*	-	*	-
<b>Total Energy Efficiency (MWh)</b>	<b>21,177</b>	<b>9,189</b>	<b>30,366</b>	<b>528,672</b>	<b>559,039</b>				
<b>Total Energy Efficiency (MMBtu)</b>	<b>308,405</b>	<b>154,933</b>	<b>463,339</b>	<b>3,706,167</b>	<b>4,169,506</b>				
<b>Total Energy Efficiency (MW)</b>	<b>0.1</b>	<b>-</b>	<b>0.1</b>	<b>49</b>	<b>49</b>				
<b>Total Renewable Energy (MWh)</b>	<b>3,808</b>	<b>943</b>	<b>4,751</b>	<b>8,844</b>	<b>13,595</b>				
<b>Total Renewable Energy (MW)</b>	<b>2.75</b>	<b>0.4</b>	<b>3.1</b>	<b>2</b>	<b>5</b>				
<b>Total CO2e Reductions (metric tons)</b>	<b>30,585</b>	<b>13,119</b>	<b>43,705</b>	<b>479,210</b>	<b>522,915</b>				
<b>Total Customer Bill Savings (\$ million)</b>	<b>\$6.97</b>	<b>\$2.50</b>	<b>\$9.48</b>	<b>\$80.06</b>	<b>\$89.53</b>				
<b>Total Private Investment (\$ million)</b>	<b>\$47.15</b>	<b>\$59.83</b>	<b>\$106.98</b>	<b>\$696.58</b>	<b>\$803.56</b>				

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>10</sup> Targets and benefits include initiatives filed and approved through June 30, 2017.

<sup>11</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected, as it will take time for the benefits to be realized.

<sup>12</sup> Completed projects through March 3, 2017 contains adjustments from programs due to lagged data, QA/QC, and/or updates to emission factors.

<sup>13</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 5. Market Development and Innovation and Research Portfolio Committed Benefits Progress to Date - Lifetime**<sup>14, 15, 16, 17</sup>

Initiative	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Annual Target Through Q2 2017	% of Cumulative Annual Target Through Q2 2017	Total Cumulative Annual Target through 2025	% of Total Cumulative Annual Target through 2025
<b>Market Development</b>									
Energy Efficiency (MWh)	323,651	139,507	463,158	7,860,055	8,323,214	*	-	*	-
Energy Efficiency (MMBtu)	7,127,635	2,627,449	9,755,085	55,007,685	64,762,770	*	-	*	-
Renewable Energy (MWh)	59,559	14,982	74,541	98,886	173,427	*	-	2,550,000	7%
CO2e Reductions (metric tons)	607,223	219,693	826,916	7,103,861	7,930,777	7,481,000	106%	33,480,000	24%
Customer Bill Savings (\$ million)	\$137.75	\$45.03	\$182.79	\$1,193.96	\$1,376.75	\$1,419.20	97%	\$6,452.00	21%
Private Investment (\$ million)	\$47.15	\$59.83	\$106.98	\$545.91	\$652.89	\$847.25	77%	\$5,137.00	13%
<b>Innovation and Research</b>									
Energy Efficiency (MWh)	-	-	-	-	-	*	-	*	-
Energy Efficiency (MMBtu)	-	-	-	-	-	*	-	*	-
Renewable Energy (MWh)	-	-	-	-	-	*	-	*	-
CO2e Reductions (metric tons)	-	-	-	-	-	*	-	*	-
Customer Bill Savings (\$ million)	-	-	-	-	-	*	-	*	-
Private Investment (\$ million)	-	-	-	\$150.67	\$150.67	\$213.35	71%	\$959.00	16%
<b>Total Energy Efficiency (MWh)</b>	<b>323,651</b>	<b>139,507</b>	<b>463,158</b>	<b>7,860,055</b>	<b>8,323,214</b>	-	-	-	-
<b>Total Energy Efficiency (MMBtu)</b>	<b>7,127,635</b>	<b>2,627,449</b>	<b>9,755,085</b>	<b>55,007,685</b>	<b>64,762,770</b>	-	-	-	-
<b>Total Renewable Energy (MWh)</b>	<b>59,559</b>	<b>14,982</b>	<b>74,541</b>	<b>98,886</b>	<b>173,427</b>	-	-	-	-
<b>Total CO2e Reductions (metric tons)</b>	<b>607,223</b>	<b>219,693</b>	<b>826,916</b>	<b>7,103,861</b>	<b>7,930,777</b>	-	-	-	-
<b>Total Customer Bill Savings (\$ million)</b>	<b>\$137.75</b>	<b>\$45.03</b>	<b>\$182.79</b>	<b>\$1,193.96</b>	<b>\$1,376.75</b>	-	-	-	-
<b>Total Private Investment (\$ million)</b>	<b>\$47.15</b>	<b>\$59.83</b>	<b>\$106.98</b>	<b>\$696.58</b>	<b>\$803.56</b>	-	-	-	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>14</sup> Targets and benefits include initiatives filed and approved through June 30, 2017.

<sup>15</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected, as it will take time for the benefits to be realized.

<sup>16</sup> Completed projects through March 30, 2016 contain adjustments from programs due to lagged data, QA/QC, and/or updates to emission factors.

<sup>17</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

## 2 Resource Acquisition Transition Initiative Specific Results

Table 6. Resource Acquisition Transition Initiative Level Budgets and Spending<sup>18</sup>

Initiative	Budget Approved as of June 30, 2017 <sup>a</sup>	Expended Funds <sup>b</sup>	Open Encumbrances <sup>c</sup>	Contract Pre-Encumbrances <sup>d</sup>	Committed Funds <sup>e</sup>	% of Approved Budget Committed <sup>f</sup>	Budget Approved Remaining Balance <sup>g</sup>
<b>Resource Acquisition Transition Chapter</b>							
Commercial	\$26,392,500	\$620,538	\$1,859,935	\$1,367,855	\$3,848,328	15%	\$22,544,172
Industrial	\$69,562,932	\$2,378,947	\$10,559,069	\$9,620,939	\$22,558,955	32%	\$47,003,977
Agriculture	\$3,600,000	\$1,299,693	\$856,441	\$9,425	\$2,165,559	60%	\$1,434,441
Multifamily Market Rate	\$156,628	\$117,638	\$38,991	-	\$156,628	100%	-
Single Family Market Rate	\$22,024,680	\$8,201,485	\$1,121,451	\$2,225,894	\$11,548,830	52%	\$10,475,850
Commercial New Construction	\$30,684,000	\$514,969	\$1,211,668	\$17,876,968	\$19,603,605	64%	\$11,080,395
Low Rise New Construction	\$13,324,000	\$953,249	\$2,773,846	\$683,900	\$4,410,995	33%	\$8,913,005
Multifamily New Construction	\$13,613,000	\$484,735	\$4,303,559	\$1,204,300	\$5,992,594	44%	\$7,620,406
Anaerobic Digesters	\$12,150,000	\$17,000	\$2,083,000	\$2,000,000	\$4,100,000	34%	\$8,050,000
Small Wind	\$6,090,000	\$1,357,921	\$1,198,003	-	\$2,555,924	42%	\$3,534,076
Solar Thermal	\$399,000	\$110,870	\$261,260	-	\$372,129	93%	\$26,871
Combined Heat & Power	\$48,550,000	\$1,143,306	\$5,303,748	\$11,441,361	\$17,888,415	37%	\$30,661,585
<b>TOTAL</b>	<b>\$246,546,740</b>	<b>\$17,200,351</b>	<b>\$31,570,970</b>	<b>\$46,430,642</b>	<b>\$95,201,963</b>	<b>39%</b>	<b>\$151,344,777</b>

Table notes are on the next page.

<sup>18</sup> NYSERDA has committed an additional \$4,792,243 to solicitations with upcoming due dates that are not shown in the above table. When including these funds, NYSERDA committed 41 percent of the approved budget to date for the Resource Acquisition Transition Chapter. Committed benefits presented in this report do not include benefits associated with awards made as a result of these solicitations.

- a Funds approved by the DPS as of June 30, 2017.
- b Invoices processed for payment by NYSERDA.
- c Remaining funding obligated under a contract, purchase order, or incentive award.
- d Planned funding for contracts awarded and under negotiation.
- e Sum of Expended Funds, Open Encumbrances, and Contract Pre-Encumbrances.
- f Percentage of the committed budget.
- g Difference between Budget Approved Funds and Committed Funds.

**Table 7. Commercial Resource Acquisition Transition and FlexTech Initiative Results**<sup>19, 20, 21</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	10,783	10,783	26,050	41%	109,600	10%
	MWh Lifetime	-	-	-	177,921	177,921	430,000	41%	1,809,000	10%
	MMBtu Annual	-	-	-	89,243	89,243	230,500	39%	980,000	9%
	MMBtu Lifetime	-	-	-	1,472,517	1,472,517	3,795,000	39%	16,170,000	9%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	10,458	10,458	26,960	39%	114,200	9%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	172,564	172,564	446,500	39%	1,891,000	9%
	Annual Dollars	-	-	-	\$1.96	\$1.96	\$5.83	34%	\$24.63	8%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$32.40	\$32.40	\$96.30	34%	\$406.80	8%
	Dollars	-	-	-	\$2.48	\$2.48	\$25.40	10%	\$92.00	3%
Implementation Assistance	Participants	-	-	-	1	1	10	10%	20	5%
Technical Assistance		-	-	-	91	91	103	88%	320	28%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>19</sup> Technical Assistance includes 14 CHP studies in the participant count; however, the impact of these projects (in terms of energy and dollar metrics) is included in the Combined Heat and Power table (Table 20).

<sup>20</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>21</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 8. Industrial Resource Acquisition Transition Initiative Results**<sup>22, 23, 24</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	2,623	2,134	4,758	149,633	154,391	199,200	78%	421,700	37%
	MWh Lifetime	39,352	32,015	71,366	2,244,500	2,315,866	2,995,000	77%	6,325,000	37%
	MMBtu Annual	15,114	9,788	24,902	2,652,634	2,677,536	1,685,000	159%	3,586,000	75%
	MMBtu Lifetime	226,710	146,820	373,530	39,789,508	40,163,038	25,250,000	159%	53,790,000	75%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	2,165	1,631	3,797	278,192	281,988	248,500	113%	521,400	54%
Customer Bill Savings (millions)	Lifetime Tons	32,480	24,470	56,950	4,172,875	4,229,826	3,730,000	113%	7,821,000	54%
	Annual Dollars	\$0.40	\$0.34	\$0.75	\$30.81	\$31.55	\$30.50	103%	\$64.12	49%
Private Investment (millions)	Lifetime Dollars	\$6.06	\$5.12	\$11.18	\$462.08	\$473.27	\$457.00	104%	\$961.80	49%
	Dollars	\$3.59	\$2.80	\$6.39	\$270.72	\$277.10	\$245.00	113%	\$761.10	36%
IPE	Participants	6	6	12	86	98	86	114%	218	45%
Technical Assistance		-	-	-	27	27	30	90%	80	34%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>22</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected, as it will take time for the benefits to be realized.

<sup>23</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>24</sup> Completed projects through March 31, 2017 decreased due to a change in the methodology for reporting multi-measure projects.

**Table 9. Agriculture Resource Acquisition Transition Initiative Results**<sup>25, 26, 27, 28</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	2,193	3,770	5,963	3,125	9,087	6,500	140%	14,000	65%
	MWh Lifetime	32,889	56,553	89,442	46,869	136,311	97,500	140%	210,000	65%
	MMBtu Annual	1,906	13,570	15,476	320	15,796	2,500	632%	7,000	226%
	MMBtu Lifetime	28,584	203,552	232,136	4,801	236,937	37,500	632%	105,000	226%
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	231	441	672	-	672	*	-	*	-
	MWh Lifetime	3,470	6,616	10,086	-	10,086	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	1,370	2,935	4,305	1,661	5,966	3,500	170%	8,000	75%
	Lifetime Tons	20,547	44,031	64,578	24,916	89,494	52,500	170%	120,000	75%
Customer Bill Savings (millions)	Annual Dollars	\$0.39	\$0.75	\$1.14	\$0.46	\$1.60	\$0.97	165%	\$2.09	76%
	Lifetime Dollars	\$5.83	\$11.25	\$17.07	\$6.86	\$23.93	\$14.50	165%	\$31.35	76%
Private Investment (millions)	Dollars	\$3.25	\$4.97	\$8.22	\$2.45	\$10.67	\$5.77	185%	\$12.24	87%
Participants	Participants	175	109	284	149	433	361	120%	765	57%

\* Metric to be tracked and reported, though specific target was not ordered.

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- <sup>25</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.
  - <sup>26</sup> Completed projects through March 31, 2017 contain adjustments due to lagged data, QA/QC, as well as application of a 47 percent adoption rate, consistent with the filed investment plan. This adoption rate will be evaluated and is subject to change as more data is gathered.
  - <sup>27</sup> Consistent with the filed investment plan, the committed and completed projects savings and private investment are based upon a 47 percent adoption rate. This adoption rate will be evaluated and is subject to change as more data is gathered.
  - <sup>28</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 10. Multifamily Market-Rate Resource Acquisition Transition Initiative Results**<sup>29, 30</sup>

**Approval Date:** February 29, 2016

**Launch Date:** May 19, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	21	21	21	102%	41	51%
	MWh Lifetime	-	-	-	312	312	309	101%	617	51%
	MMBtu Annual	-	36	36	512	548	4,935	11%	9,870	6%
	MMBtu Lifetime	-	546	546	7,680	8,226	74,000	11%	148,000	6%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	2	2	38	40	299	13%	598	7%
Customer Bill Savings (millions)	Lifetime Tons	-	29	29	573	602	4,485	13%	8,970	7%
	Annual Dollars	-	\$0.00	\$0.00	\$0.01	\$0.01	\$0.06	11%	\$0.11	5%
Private Investment (millions)	Lifetime Dollars	-	\$0.00	\$0.00	\$0.09	\$0.09	\$0.82	11%	\$1.63	5%
	Dollars	-	\$0.07	\$0.07	-	\$0.07	\$0.21	33%	\$0.42	17%
Participants	Participants	-	18	18	168	186	93	200%	186	100%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>29</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>30</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 11. Single-Family Market-Rate Resource Acquisition Transition Initiative Results<sup>31, 32, 33</sup>**

**Approval Date:** February 29, 2016

**Launch Date:** March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	1,306	274	1,580	69	1,649	1,845	89%	3,504	47%
	MWh Lifetime	19,589	4,116	23,705	1,030	24,735	27,600	90%	52,550	47%
	MMBtu Annual	72,480	13,497	85,976	5,064	91,040	108,000	84%	230,700	39%
	MMBtu Lifetime	1,811,990	337,415	2,149,405	126,600	2,276,005	2,700,000	84%	5,766,000	39%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	5,119	972	6,091	346	6,437	7,510	86%	15,820	41%
Customer Bill Savings (millions)	Lifetime Tons	121,101	22,866	143,967	8,283	152,250	176,000	87%	371,900	41%
	Annual Dollars	\$1.28	\$0.24	\$1.52	\$0.09	\$1.61	\$1.93	84%	\$4.07	40%
Private Investment (millions)	Lifetime Dollars	\$30.10	\$5.72	\$35.82	\$2.16	\$37.98	\$45.20	84%	\$95.71	40%
	Dollars	\$20.96	\$4.59	\$25.56	\$1.44	\$27.00	\$33.80	80%	\$77.23	35%
Participants	Participants	2,729	673	3,402	211	3,613	4,188	86%	9,300	39%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>31</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>32</sup> Cumulative Current Target through Q2 2017 and Total Target through Initiative Completion (2019) include discounts based on historical performance; however, current benefits have not been discounted. Future impact evaluations will inform the level of realized savings.

<sup>33</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 12. Commercial New Construction Resource Acquisition Transition Initiative Results**<sup>34, 35, 36</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	41,050	41,050	28,800	143%	66,200	62%
	MWh Lifetime	-	-	-	820,995	820,995	576,000	143%	1,324,000	62%
	MMBtu Annual	-	-	-	51,833	51,833	43,200	120%	105,100	49%
	MMBtu Lifetime	-	-	-	1,036,663	1,036,663	864,500	120%	2,105,000	49%
Renewable Energy	MW	-	-	-	11	11	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	24,355	24,355	17,400	140%	40,300	60%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	487,091	487,091	349,000	140%	808,000	60%
	Annual Dollars	-	-	-	\$6.67	\$6.67	\$4.09	163%	\$9.41	71%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$133.43	\$133.43	\$81.75	163%	\$188.30	71%
	Dollars	-	-	-	-	-	\$27.30	-	\$42.07	-
Participants	Participants	-	-	-	55	55	73	75%	147	37%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>34</sup> The pipeline savings projection for Commercial New Construction is based on current approved applications and does not include any discount for expected future attrition. The Resource Acquisition Transition Chapter annual savings targets assumed an attrition rate of approximately 50 percent, based on historic program data. Actual attrition will be reflected in the reported values as it occurs.

<sup>35</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>36</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 13. Low-Rise New Construction Market-Rate Resource Acquisition Transition Initiative Results** <sup>37, 38, 39</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	1,197	327	1,524	1,997	3,521	3,135	112%	7,010	50%
	MWh Lifetime	23,932	6,543	30,475	39,936	70,411	62,850	112%	140,300	50%
	MMBtu Annual	31,176	10,818	41,994	6,219	48,213	35,450	136%	78,900	61%
	MMBtu Lifetime	623,520	216,367	839,887	124,376	964,263	708,500	136%	1,577,000	61%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	2,308	747	3,055	1,381	4,436	3,530	126%	7,870	56%
Customer Bill Savings (millions)	Lifetime Tons	46,152	14,945	61,097	27,625	88,723	70,650	126%	157,400	56%
	Annual Dollars	\$0.44	\$0.12	\$0.56	\$0.38	\$0.94	\$0.83	113%	\$1.86	51%
Private Investment (millions)	Lifetime Dollars	\$8.84	\$2.46	\$11.30	\$7.51	\$18.81	\$16.65	113%	\$37.20	51%
	Dollars	\$1.95	\$0.61	\$2.56	-	\$2.56	\$7.44	34%	\$17.73	14%
Participants	Participants	364	133	497	343	840	1,220	69%	2,926	29%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>37</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>38</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>39</sup> Private Investment is based on the code baseline from which the new construction unit is built; however, this is not confirmed until the project is completed.

**Table 14. Low-Rise New Construction Low-to-Moderate Income Resource Acquisition Transition Initiative Results**<sup>40, 41, 42</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	2	7	9	2,875	2,883	2,835	102%	7,770	37%
	MWh Lifetime	45	134	179	57,490	57,669	56,550	102%	155,200	37%
	MMBtu Annual	58	174	232	27,654	27,886	26,450	105%	66,900	42%
	MMBtu Lifetime	1,152	3,480	4,632	553,087	557,719	527,500	106%	1,336,000	42%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	4	13	17	2,990	3,007	2,890	104%	7,630	39%
	Lifetime Tons	85	256	340	59,806	60,147	57,750	104%	152,600	39%
Customer Bill Savings (millions)	Annual Dollars	\$0.00	\$0.00	\$0.00	\$0.74	\$0.74	\$0.70	106%	\$1.86	40%
	Lifetime Dollars	\$0.01	\$0.04	\$0.05	\$14.78	\$14.84	\$13.95	106%	\$37.25	40%
Private Investment (millions)	Dollars	\$0.01	-	\$0.01	-	\$0.01	\$10.13	0.1%	\$25.73	0.04%
Participants	Participants	2	3	5	1,618	1,623	2,197	74%	5,329	30%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>40</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>41</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>42</sup> Private Investment is based on the code baseline from which the new construction unit is built: however, this is not confirmed until the project is completed.

**Table 15. Multifamily New Construction Market-Rate Resource Acquisition Transition Initiative Results** <sup>43, 44, 45</sup>

**Approval Date:** February 29, 2016

**Launch Date:** August 8, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	1,025	1,025	1,551	66%	5,271	19%
	MWh Lifetime	-	-	-	20,497	20,497	31,050	66%	105,600	19%
	MMBtu Annual	-	-	-	7,241	7,241	8,235	88%	28,490	25%
	MMBtu Lifetime	-	-	-	144,824	144,824	164,500	88%	569,500	25%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	924	924	1,256	74%	4,291	22%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	18,484	18,484	25,050	74%	85,700	22%
	Annual Dollars	-	-	-	\$0.20	\$0.20	\$0.25	80%	\$0.86	24%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$4.04	\$4.04	\$5.05	80%	\$17.19	24%
	Dollars	-	-	-	-	-	\$6.45	-	\$20.82	-
Participants	Participants	-	-	-	471	471	789	60%	2,689	18%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>43</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>44</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>45</sup> Private Investment is based on the code baseline from which the new construction unit is built; however, this is not confirmed until the project is completed.

**Table 16. Multifamily New Construction Low-to-Moderate Income Resource Acquisition Transition Initiative Results**<sup>46, 47, 48</sup>

**Approval Date:** February 29, 2016

**Launch Date:** August 8, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	6,303	6,303	7,575	83%	15,520	41%
	MWh Lifetime	-	-	-	126,066	126,066	151,100	83%	310,200	41%
	MMBtu Annual	-	-	-	31,255	31,255	38,350	81%	81,100	39%
	MMBtu Lifetime	-	-	-	625,098	625,098	767,000	81%	1,622,000	39%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	4,978	4,978	6,010	83%	12,450	40%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	99,563	99,563	120,350	83%	249,300	40%
	Annual Dollars	-	-	-	\$1.20	\$1.20	\$1.22	98%	\$2.51	48%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$23.96	\$23.96	\$24.35	98%	\$50.20	48%
	Dollars	-	-	-	-	-	\$31.85	-	\$62.40	-
Participants	Participants	-	-	-	3,205	3,205	3,807	84%	7,857	41%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>46</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>47</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>48</sup> Private Investment is based on the code baseline from which the new construction unit is built; however, this is not confirmed until the project is completed.

**Table 17. Anaerobic Digesters Resource Acquisition Transition Initiative Results**<sup>49, 50, 51</sup>

**Approval Date:** February 29, 2016

**Launch Date:** July 8, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	7,444	7,444	14,940	50%	37,440	20%
	MWh Lifetime	-	-	-	74,440	74,440	149,400	50%	374,400	20%
	MW	-	-	-	1	1	1	113%	1	113%
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	3,917	3,917	7,920	49%	19,920	20%
	Lifetime Tons	-	-	-	39,168	39,168	79,200	49%	199,200	20%
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$1.08	\$1.08	\$1.99	54%	\$4.99	22%
	Lifetime Dollars	-	-	-	\$10.83	\$10.83	\$19.99	54%	\$49.99	22%
Private Investment (millions)	Dollars	-	-	-	\$8.00	\$8.00	\$39.00	21%	\$99.00	8%
Participants	Participants	-	-	-	2	2	4	50%	10	20%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>49</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>50</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>51</sup> NYSERDA makes no claim to the environmental attributes or any NYGATS certificates that may be associated with these projects.

**Table 18. Small Wind Resource Acquisition Transition Initiative Results**<sup>52, 53, 54</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	487	168	655	692	1,348	2,000	67%	5,000	27%
	MWh Lifetime	9,744	3,365	13,109	13,841	26,951	34,000	79%	82,000	33%
	MW	0.2	0.1	0.3	0.4	1	1	98%	2	41%
CO2e Emission Reduction (metric tons)	Annual Tons	256	89	345	364	709	1,500	47%	3,000	24%
	Lifetime Tons	5,127	1,771	6,898	7,283	14,181	18,500	77%	44,000	32%
Customer Bill Savings (millions)	Annual Dollars	\$0.06	\$0.02	\$0.08	\$0.08	\$0.17	\$0.30	56%	\$0.72	23%
	Lifetime Dollars	\$1.23	\$0.45	\$1.69	\$1.69	\$3.37	\$6.00	56%	\$14.40	23%
Private Investment (millions)	Dollars	\$0.70	\$0.61	\$1.31	\$2.44	\$3.75	\$3.00	125%	\$7.20	52%
Participants	Participants	7	11	18	38	56	54	104%	129	43%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>52</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>53</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>54</sup> NYSERDA makes no claim to the environmental attributes or any NYGATS certificates that may be associated with these projects.

**Table 19. Solar Thermal Resource Acquisition Transition Initiative Results**<sup>55, 56</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	123	-	123	707	830	830	100%	830	100%
	MWh Lifetime	1,849	-	1,849	10,604	12,453	12,500	100%	12,500	100%
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	65	-	65	372	437	437	100%	437	100%
	Lifetime Tons	973	-	973	5,580	6,552	6,550	100%	6,550	100%
Customer Bill Savings (millions)	Annual Dollars	\$0.02	-	\$0.02	\$0.09	\$0.11	\$0.11	96%	\$0.11	96%
	Lifetime Dollars	\$0.23	-	\$0.23	\$1.35	\$1.58	\$1.66	95%	\$1.66	95%
Private Investment (millions)	Dollars	\$0.08	-	\$0.08	\$0.74	\$0.82	\$0.82	100%	\$0.82	100%
Participants	Participants	8	-	8	34	42	42	100%	42	100%
Eligible Installers		5	-	-	-	5	20	25%	20	25%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>55</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>56</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 20. Combined Heat and Power Resource Acquisition Transition Initiative Results**<sup>57, 58, 59, 60, 61, 62</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	402	-	402	186,742	187,144	201,000	93%	287,000	65%
	MWh Lifetime	6,031	-	6,031	2,801,134	2,807,165	2,965,000	95%	3,320,500	85%
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	0.1	-	0.1	35	35	36	98%	51	69%
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	82	-	82	39,521	39,603	45,600	87%	64,900	61%
Customer Bill Savings (millions)	Lifetime Tons	1,232	-	1,232	592,808	594,040	681,000	87%	972,800	61%
	Annual Dollars	\$0.06	-	\$0.06	\$17.64	\$17.69	\$20.39	87%	\$29.20	61%
Private Investment (millions)	Lifetime Dollars	\$0.84	-	\$0.84	\$264.54	\$265.38	\$306.65	87%	\$437.70	61%
	Dollars	\$3.20	-	\$3.20	\$177.95	\$181.15	\$192.00	94%	\$230.00	79%
Participants	Participants	7	-	7	75	82	57	144%	86	95%
MT Marketplace		-	-	8	-	8	6	133%	24	133%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>57</sup> Technical assistance energy savings and dollars metrics included for 14 CHP studies.

<sup>58</sup> Cumulative Current Target (2016) and Total Target through Initiative Completion (2018) contain metrics from the Market Transformation of Marketplace table in the Resource Acquisition Chapter, which could be considered indirect benefit targets. This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>59</sup> Committed benefits include one large project in the early stages of NYSERDA review (with a combined capacity of 5.94 MW) to which refinements will be made in future reports, as needed.

<sup>60</sup> CHP targets and reporting methods associated with fuel used to run the CHP systems are being examined and may be adjusted in future reports.

<sup>61</sup> Energy Efficiency values represent MWh savings from the use of CHP systems; natural gas required to run CHP systems (1,113,852 MMBtu cumulative annual and 16,707,773 MMBtu lifetime) is netted out of the emission reduction and customer bill savings values shown in this table. Emission reductions and customer bill savings are net, including both MWh that add to the benefits and additional natural gas required to run CHP systems that subtract from the benefits.

<sup>62</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

### 3 Market Development Initiative Specific Results

Table 21. Market Development Initiative Budgets and Spending <sup>63</sup>

Initiative	Budget Approved as of June 30, 2017 <sup>a</sup>	Expended Funds <sup>b</sup>	Open Encumbrances <sup>c</sup>	Contract Pre-Encumbrances <sup>d</sup>	Committed Funds <sup>e</sup>	% of Approved Budget Committed <sup>f</sup>	Budget Approved Remaining Balance <sup>g</sup>
<b>Market Characterization &amp; Design Chapter</b>	<b>\$11,500,000</b>	<b>\$763,243</b>	<b>\$167,116</b>	<b>\$157,500</b>	<b>\$1,087,859</b>	<b>9%</b>	<b>\$10,412,141</b>
<b>Commercial Chapter</b>							
Real Estate Tenant	\$25,500,000	\$324,193	\$1,258,913	\$280,539	\$1,863,645	7%	\$23,636,355
Energy Management	\$59,805,000	\$363,881	\$1,905,393	\$1,856,330	\$4,125,604	7%	\$55,679,396
REV Campus Challenge	\$21,650,000	\$95,103	\$580,964	\$1,035,722	\$1,711,789	8%	\$19,938,211
<b>Commercial Chapter Total</b>	<b>\$106,955,000</b>	<b>\$783,177</b>	<b>\$3,745,270</b>	<b>\$3,172,591</b>	<b>\$7,701,038</b>	<b>7%</b>	<b>\$99,253,962</b>
<b>Industrial Chapter</b>							
Continuous Energy Improvement	\$17,539,000	\$278,152	\$2,804,119	\$10,000	\$3,092,271	18%	\$14,446,729
<b>Industrial Chapter Total</b>	<b>\$17,539,000</b>	<b>\$278,152</b>	<b>\$2,804,119</b>	<b>\$10,000</b>	<b>\$3,092,271</b>	<b>18%</b>	<b>\$14,446,729</b>
<b>Communities Chapter</b>							
Clean Energy Communities	\$14,218,526	\$43,632	\$533,750	\$50,000	\$627,382	4%	\$13,591,144
Community Energy Engagement	\$4,409,882	\$193,500	-	-	\$193,500	4%	\$4,216,382
<b>Communities Chapter Total</b>	<b>\$18,628,408</b>	<b>\$237,132</b>	<b>\$533,750</b>	<b>\$50,000</b>	<b>\$820,882</b>	<b>4%</b>	<b>\$17,807,526</b>
<b>Large-Scale Renewables Chapter</b>							
Offshore Wind Master Plan	\$5,000,000	\$612,609	\$677,371	-	\$1,289,980	26%	\$3,710,020
Offshore Wind Pre-Development Activities	\$10,000,000	\$432,921	\$2,495,288	\$168,393	\$3,096,602	31%	\$6,903,398
<b>Large-Scale Renewables Chapter Total</b>	<b>\$15,000,000</b>	<b>\$1,045,530</b>	<b>\$3,172,659</b>	<b>\$168,393</b>	<b>\$4,386,582</b>	<b>29%</b>	<b>\$10,613,418</b>
<b>REV Technical Assistance Chapter</b>							
REV Connect	\$2,500,000	\$557,143	\$1,583,001	\$115,000	\$2,255,144	90%	\$244,856
<b>REV Technical Assistance Chapter Total</b>	<b>\$2,500,000</b>	<b>\$557,143</b>	<b>\$1,583,001</b>	<b>\$115,000</b>	<b>\$2,255,144</b>	<b>90%</b>	<b>\$244,856</b>
<b>Energy Storage Chapter</b>							
Reducing Barriers to Distributed Deployment	\$24,450,000	\$29,505	\$409,151	\$1,067,636	\$1,506,292	6%	\$22,943,708
<b>Energy Storage Chapter Total</b>	<b>\$24,450,000</b>	<b>\$29,505</b>	<b>\$409,151</b>	<b>\$1,067,636</b>	<b>\$1,506,292</b>	<b>6%</b>	<b>\$22,943,708</b>
<b>Clean Transportation Chapter</b>							
Electric Vehicles	\$39,500,000	\$1,080,008	-	-	\$1,080,008	3%	\$38,419,992
<b>Clean Transportation Chapter Total</b>	<b>\$39,500,000</b>	<b>\$1,080,008</b>	<b>-</b>	<b>-</b>	<b>\$1,080,008</b>	<b>3%</b>	<b>\$38,419,992</b>

**Table 21 continued**

<b>Agriculture Chapter</b>							
2030 GLASE	\$5,000,000	-	\$5,000,000	-	\$5,000,000	100%	-
<b>Agriculture Chapter Total</b>	<b>\$5,000,000</b>	<b>-</b>	<b>\$5,000,000</b>	<b>-</b>	<b>\$5,000,000</b>	<b>100%</b>	<b>-</b>
<b>Low- to Moderate-Income Chapter</b>							
RetrofitNY	\$30,503,500	\$51,792	\$225,333	-	\$277,125	1%	\$30,226,375
REVitalize	\$725,000	-	\$48,000	-	\$48,000	7%	\$677,000
Low-Income Forum on Energy	\$1,300,000	\$33,021	\$21,279	-	\$54,300	4%	\$1,245,700
Healthy Homes Feasibility Study	\$215,000	-	\$212,147	-	\$212,147	99%	\$2,853
Single Family LMI Residential	\$229,261,861	\$37,728,495	\$2,368,217	\$10,739,910	\$50,836,622	22%	\$178,425,239
LMI Multifamily	\$50,189,418	\$408,941	\$2,226,829	\$2,731,125	\$5,366,895	11%	\$44,822,523
<b>Low- to Moderate-Income Chapter Total</b>	<b>\$312,194,779</b>	<b>\$38,222,249</b>	<b>\$5,101,805</b>	<b>\$13,471,035</b>	<b>\$56,795,089</b>	<b>18%</b>	<b>\$255,399,690</b>
<b>Workforce Development and Training Chapter</b>							
Industry Partnerships	\$6,845,000	\$26,340	\$195,660	\$1,431,616	\$1,653,616	24%	\$5,191,384
<b>Workforce Development and Training Chapter Total</b>	<b>\$6,845,000</b>	<b>\$26,340</b>	<b>\$195,660</b>	<b>\$1,431,616</b>	<b>\$1,653,616</b>	<b>24%</b>	<b>\$5,191,384</b>
<b>Renewable Heating and Cooling</b>							
Heat Pumps and Solar Thermal	\$33,211,843	\$133,822	\$98,115	\$201,996	\$433,933	1%	\$32,777,910
Renewable Heat NY	\$13,487,000	-	-	-	-	-	\$13,487,000
<b>Renewable Heating and Cooling Total</b>	<b>\$46,698,843</b>	<b>\$133,822</b>	<b>\$98,115</b>	<b>\$201,996</b>	<b>\$433,933</b>	<b>1%</b>	<b>\$46,264,910</b>
<b>Clean Energy Products Chapter</b>							
Underutilized Product Support	\$27,896,000	-	-	-	-	-	\$27,896,000
<b>Clean Energy Products Chapter Total</b>	<b>\$27,896,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$27,896,000</b>
<b>NYS Cost Recovery Fee</b>	<b>\$22,160,342</b>	<b>\$1,369,507</b>	<b>-</b>	<b>-</b>	<b>\$1,369,507</b>	<b>6%</b>	<b>\$20,790,835</b>
<b>Total Market Development</b>	<b>\$656,867,372</b>	<b>\$44,525,807</b>	<b>\$22,810,646</b>	<b>\$19,845,767</b>	<b>\$87,182,221</b>	<b>13%</b>	<b>\$569,685,152</b>

- <sup>a</sup> Funds approved by the DPS as of June 30, 2017.
- <sup>b</sup> Invoices processed for payment by NYSERDA.
- <sup>c</sup> Remaining funding obligated under a contract, purchase order, or incentive award.
- <sup>d</sup> Planned funding for contracts awarded and under negotiation.
- <sup>e</sup> Sum of Expended Funds, Open Encumbrances, and Contract Pre-Encumbrances.
- <sup>f</sup> Percentage of the budget that has been committed.
- <sup>g</sup> Difference between Budget Approved Funds and Committed Funds.

<sup>63</sup> NYSERDA committed an additional \$31,109,404 to solicitations with upcoming due dates not included in the above table. When including these funds, NYSERDA committed 18 percent of the approved budget to date for the Market Development Chapter. Committed benefits presented in this report do not include benefits associated with awards made as a result of these solicitations.

**Table 22. Real Estate Tenant Initiative Results<sup>64, 65</sup>**

**Approval Date:** May 23, 2016

**Launch Date:** July 19, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2024)	% of Total Target through Initiative Completion (2024)
Energy Efficiency	MWh Annual	-	-	-	873	873	6,671	13%	124,900	1%
	MWh Lifetime	-	-	-	6,986	6,986	53,468	13%	999,200	1%
	MMBtu Annual	-	-	-	924	924	7,028	13%	131,800	1%
	MMBtu Lifetime	-	-	-	7,392	7,392	56,020	13%	1,054,000	1%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	509	509	3,880	13%	72,700	1%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	4,074	4,074	31,064	13%	581,600	1%
	Annual Dollars	-	-	-	\$0.15	\$0.15	\$0.93	17%	\$17.34	1%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$1.22	\$1.22	\$7.38	17%	\$138.70	1%
	Dollars	-	-	-	\$0.06	\$0.06	\$0.65	10%	\$12.15	1%
Participants	Participants	-	-	-	6	6	72	8%	1,349	0.4%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>64</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>65</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 23. Key Milestones for Real Estate Tenant**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016–2020	Tenants will incorporate energy efficiency measures from tenant-specific packages into their designs. Observed gains from the National Resource Defense Council (NRDC), were 25–40% of energy saved above the 2007 code; NYSERDA is projecting gains of 15–20% against the 2010 and 2012 code. The actual savings will be identified through measurement and verification (M&V).	The first application for a Tenant Energy Efficiency Package was received in December 2016. There are currently six active projects in the program and several more in the pipeline. Based on market feedback received and stakeholder interaction during the first six months of outreach, the Program Opportunity Notice has been revised to incorporate changes that will increase uptake. Outreach is ongoing and focuses on communicating the value of the program to stakeholders and industry, leveraging existing relationship and generating new project leads.
	2018–2024	Building specific packages demonstrate replicability of tenant-specific model to the whole building for development of building-specific packages.	
	2018–2024	Engagement with stakeholders involves all identified market actors.	
	2018–2024	Secure commitments from building owners and managers and brokers to provide building-specific packages to new tenants with leasing materials.	
	2018–2024	New tenants use building-specific energy efficiency packages (actual participation identified from results reported by building owner).	
	2018–2024	Projects demonstrate that building-specific packages can be used within the normal timeframe of the tenant fit-out process and do not slow down the process.	
	2018–2024	NYSERDA validates energy models, energy savings, incremental cost, and return on investment for tenant projects.	
	2018–2024	NYSERDA confirms economic savings/value while presenting soft cost (i.e., productivity) opportunities as additional benefits to the market.	
	2018–2024	NYSERDA gathers data on tenant productivity, satisfaction, and wellness through surveys created with each tenant’s Corporate Social Responsibility and Human Resource teams.	
	2018–2024	For buildings that offer tenant efficiency packages, 30% of new tenants use the package to implement energy efficiency measures that go above code.	

**Table 23 continued**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2020–2025	Market actors seek to develop tenant and/or building-specific packages for new participating buildings, initially with cost share.	
	2020–2025	Tenants and architects and engineers realize the value of energy modeling and packages in the design process (measured by participation in the intervention and training initiatives).	
	2020–2025	Building owners and managers, architects and engineers, and brokers incorporate package development into their existing business models.	
	2020–2025	Tenants inquire about and demand energy efficiency in prospective spaces.	
	2020–2025	Standardized packages developed for tenant office spaces, if significant commonalities are identified among building-specific packages.	
	2020–2025	Building owners and managers attain lower operating costs and greater asset value.	

**Table 24. Real-Time Energy Management Initiative Results**<sup>66, 67</sup>

**Approval Date:** May 23, 2016

**Launch Date:** June 20, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2024)	% of Total Target through Initiative Completion (2024)
Energy Efficiency	MWh Annual	-	-	-	7,227	7,227	30,500	24%	444,300	2%
	MWh Lifetime	-	-	-	57,814	57,814	244,600	24%	3,554,000	2%
	MMBtu Annual	-	-	-	6,194	6,194	14,500	43%	184,200	3%
	MMBtu Lifetime	-	-	-	49,555	49,555	115,800	43%	1,474,000	3%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	4,132	4,132	16,850	25%	243,400	2%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	33,055	33,055	134,200	25%	1,948,000	2%
	Annual Dollars	-	-	-	\$1.20	\$1.20	\$4.14	29%	\$60.11	2%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$9.62	\$9.62	\$33.10	29%	\$480.90	2%
	Dollars	-	-	-	\$1.79	\$1.79	\$12.99	14%	\$357.80	1%
Participants	Participants	-	-	-	38	38	53	72%	1,462	3%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>66</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>67</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 25. Key Milestones for Real-Time Energy Management**

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	Secure RTEM Advisor and begin development of market standards.	RTEM Advisor is secured and actively participating in the vendor qualification process.
✓	2016	Create and grow a list of qualified RTEM vendors.	The RTEM Request for Qualification (RFQ) was launched in mid-April 2016. There has been a steady inflow of applications. The RTEM RFQ has received 97 applications to date and 46 vendors are currently approved. This is marked complete but the RFQ is open until April 2021 so the number of vendors will continue to grow.
✓	2016	Stimulate interest and market activity with an open enrollment incentive offering.	The RTEM Program Opportunity Notice (PON) was launched June 20, 2016. Application submittals are in process and interest is expected to grow as more learn about the magnitude of the program and RTEM vendors are qualified. A substantial number of vendors are now qualified, 67 project applications are in process and more are expected. This is being marked complete but the PON is open through June 30, 2017.
✓	2016	The program's criteria for qualification of vendors, hardware, and software is introduced to the market and used as a road map for new vendors with the goal of becoming the industry standard.	The application process to become a qualified vendor has led to interactive conversations that allow firms to clearly identify areas of opportunity to expand their services and abilities. The program's criteria are causing these opportunities to be adopted sooner than would have occurred without the program.
	2017–2020	Incentives, Qualified Vendor Listing, and Independent RTEM advisor services help convert prospective customers into committed and installed RTEM projects.	Sixty-seven project applications are in process, 24 submitted and approved while 43 are pipeline projects. Projects can take a year to install and then proceed for one to five- years during which time the program collects data on recommended and installed energy efficiency measures. It is anticipated that findings will begin to be reported in 2020.

**Table 25 continued**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017-2020	NYSERDA market support and approach attract new RTEM vendors to the New York State market and increase business development investment of all RTEM vendors.	Due to the RTEM program, vendors are looking to initiate new business in NYS. Furthermore, due to the structure of the program, vendors that are looking to enter the NYS market can partner with vendors that already have business in NYS, and therefore, can leverage existing relationships, and thus, expedite business development opportunities.
	2017-2020	Secure REM Advisor and begin development of market standards.	
	2017-2020	Create and grow a list of qualified REM vendors.	
	2017-2020	Stimulate interest and market activity with an open enrollment incentive offering for REM.	
	2017–2020	EM Advisors support gaps in market confidence and identify market approaches to eliminating gaps.	Work on this will begin once RTEM projects begin to be installed and report savings.
	2017–2020	Peer-to-peer exchanges and EM Advisors transfer learnings across the projects supported by NYSERDA and enhance success.	During the early RTEM project installations, discussions of best practices, client communications, and lessons learned have been reported to the RTEM Advisor.
	2017–2020	RTEM Technical Guidance Document is drafted and tested.	Work will begin on this in 2018 once sufficient RTEM projects have been installed and the quarterly data collected and analyzed to inform the technical guidance document.
	2017–2020	RTEM Technical Guidance Document is published.	Work will begin on this in 2018 once sufficient RTEM projects have been installed and the quarterly data collected and analyzed to inform the technical guidance document.

Table 25 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017–2020	NYSERDA in coordination with industry partners standardizes methodologies for calculating/analyzing costs and savings data.	Working with CUNY Building Performance Lab (BPL) to help RTEM vendors participate in focus groups to develop minimum standards of care (MSoC). The MSoC will serve as a customer buying guide that will highlight the fundamental RTEM System/Service capabilities and benefits.
	2018–2021	NYSERDA direct supports are ratcheted downward as industry standardization is adopted and results of pilots/studies are shared, broadly increasing customer confidence in the benefits and returns of RTEM.	
	2018–2021	Methods for capturing the potential benefits of RTEM for operations and maintenance of buildings are standardized and widely available.	
	2018–2021	Aggregated data sets and applications of RTEM data are robust enough to enable quick and proper evaluation of energy savings projects, thus removing the need for detailed, building specific energy audits to identify potential energy savings, thereby reducing customer acquisition and project costs.	
	2018–2021	NYSERDA explores the utilization of its RTEM data set to advance efforts at demand reduction and peak-load shaping, as well as its use in predicting and optimizing investments in energy efficiency.	
	2018–2021	Training platform for facility owners/operators is designed. Training platform is available and used by facility owners/operators.	
	2018–2021	Market penetration of REM insights increases as commercial customers gain awareness of and confidence in remote audit technology for energy efficiency projects and the usage becomes more widespread. Regularly engage with REM vendors to understand changing technology and market landscape.	
	2022 and beyond	RTEM is the standard for quality energy metrics, efficient building operations, and accessing behind-the-meter data.	
	2022 and beyond	Qualified list and NYSEDA’s continued support is rendered obsolete due to market standardization and acceptance.	
	2022 and beyond	RTEM is integrated into standard Building Management Systems (BMS) offerings and widely applied in buildings without BMS.	

**Table 26. Reforming the Energy Vision (REV) Campus Challenge Initiative Results**<sup>68, 69, 70</sup>

**Approval Date:** May 23, 2016

**Launch Date:** December 21, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	7,367	7,367	11,600	64%	108,100	7%
	MWh Lifetime	-	-	-	110,499	110,499	173,500	64%	1,621,000	7%
	MMBtu Annual	-	-	-	45,378	45,378	72,000	63%	670,000	7%
	MMBtu Lifetime	-	-	-	680,676	680,676	1,075,000	63%	10,050,000	7%
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	1	1	735	0.1%	8,804	0.01%
	MWh Lifetime	-	-	-	-	-	11,000	-	132,100	-
	MW	-	-	-	-	-	1	-	8	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	6,288	6,288	10,300	61%	97,030	6%
	Lifetime Tons	-	-	-	94,327	94,327	154,500	61%	1,455,000	6%
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$1.23	\$1.23	\$1.94	64%	\$18.07	7%
	Lifetime Dollars	-	-	-	\$18.44	\$18.44	\$29.05	63%	\$271.10	7%
Private Investment (millions)	Dollars	-	-	-	-	-	\$6.65	-	\$71.20	-
Participants	Participants	-	-	-	81	81	73	111%	150	54%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>68</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>69</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>70</sup> NYSERDA makes no claim to the environmental attributes or any NYGATS certificates that may be associated with these projects.

**Table 27. Key Milestones for REV Campus Challenge**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016–2019	120 out of 250 institutions sign up to be REV Campus Challenge Members.	The REV Campus Challenge has 81 institutions signed up as of the close of Q2 2017. Of those institutions, 46 were part of a “First Movers” announcement during Earth Week 2016 to highlight the institutions that took the initiative to sign on to the REV Campus Challenge early and demonstrate their commitment to integrating clean energy into their campus, classroom, and community activities.
	2016–2019	Members make progress and receive recognition as demonstrated by new and revised planning, new commitments to sustainability goals and clean energy projects started and completed.	Member progress and opportunities for recognition will be collected during an annual member survey, which will be distributed in 2017.
	2020–2022	140 out of 250 institutions sign up to be REV Campus Challenge Members.	
	2020–2022	Members continue to make progress and receive recognition as demonstrated by new and revised planning, new commitments to sustainability goals and clean energy projects started and completed.	
	2020–2022	15% more NYS institutions participate in clean energy commitment opportunities, conferences/events, peer groups, etc., building a strong support network.	
	2020–2022	Annual/semiannual survey of member institutions provides feedback on clean energy progress and changes in overall campus, student, and community mindset.	
	2022–2025	Members continue to make progress and receive recognition as demonstrated by new and revised planning, new commitments to sustainability goals and clean energy projects started and completed.	
	2022–2025	25% more NYS institutions participate in clean energy commitment opportunities, conferences/events, peer groups, etc., building a strong support network.	
	2022–2025	Annual/semiannual survey of all institutions statewide provides feedback on clean energy progress and changes in overall campus, student, and community mindset.	

**Table 28. Continuous Energy Improvement Initiative On-Site Energy Manager Results**<sup>71, 72, 73</sup>

**Approval Date:** May 23, 2016

**Launch Date:** September 12, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	27,253	27,253	7,500	363%	42,000	65%
	MWh Lifetime	-	-	-	408,795	408,795	112,500	363%	630,000	65%
	MMBtu Annual	-	-	-	159,400	159,400	87,500	182%	500,000	32%
	MMBtu Lifetime	-	-	-	2,391,000	2,391,000	1,315,000	182%	7,500,000	32%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	22,618	22,618	8,900	254%	50,400	45%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	339,275	339,275	133,500	254%	755,000	45%
	Annual Dollars	-	-	-	\$3.11	\$3.11	\$1.38	225%	\$7.80	40%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$46.58	\$46.58	\$20.65	226%	\$117.00	40%
	Dollars	-	-	-	\$9.50	\$9.50	\$10.10	94%	\$55.80	17%
Participants	Participants	-	-	-	7	7	8	93%	40	18%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>71</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>72</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>73</sup> Program has received preliminary project specific estimates for a small subset of projects that is significantly higher than the project specific estimates applied to develop these targets.

**Table 29. Key Milestones for Continuous Energy Improvement for On-Site Energy Manager**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	List of qualified energy-focused process consultants from which On-site Energy Management expertise can be sought and/or matched with industrial facilities.	The On-site Energy Manager solicitation conducted through Program Opportunity Notice (PON) 3334 was released in September 2016 and accepted applications through March 31, 2017. Seven industrial sites engaged with four energy-focused consultants were approved and contracted in the first pilot, and these consultants can match their expertise with industrial facilities.
	2017	C-suite executive buy-in and engagement that provides momentum for energy planning and management activities at industrial sites.	The seven applications approved and contracted from the first pilot had c-suite executive buy-in and engagement.
	2017	Industrial end-user commitment to energy goal creation and realization is key to successful On-site Energy Manager engagements.	End-user commitment to energy goal creation and realization will be the key to success for the seven industrial applications approved and contracted under PON 3334.
	2017	Robust tracking and reporting of energy and nonenergy benefits of the On-site Energy Manager role.	For the seven industrial applications approved and contracted from PON 3334, kick-off meetings started April 2017 and will extend through July 2017. The first contracted project submitted its quarterly report of energy and nonenergy benefits of the On-site Energy Manager role in June 2017; the remainder will continue to submit these first reports through October 2017. Initial target savings and one quarterly report indicate robust energy saving potential.
	2017 and 2018	A credible business case that proves the benefits of on-site energy management in industrial facilities. Large sites will save at least 1,200 MWh and 15,000 MMBtu annually. Medium sites will save at least 500 MWh and 5,000 MMBtu annually.	Case studies and road maps that prove the business case will be developed through 2018. Quick wins and best practices will be promoted throughout the period. Average participant goals exceed these targets at this early stage.

**Table 29 continued**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2017 and 2018	Business case content for consultant marketing plans, which address this need in the industrial market.	Case studies and road maps that prove the business case will be developed through 2018. Quick wins and best practices will be promoted and FlexTech providers will be engaged throughout the period.
	2018	Long-term energy resource(s) dedicated to energy management, without NYSERDA support (e.g., manufacturer hires energy manager function in-house; continues contracting with On-Site Energy Manager consultant; or contracts with a new consultant).	
	2018	Transition of knowledge and tools from pilot On-site Energy Managers to long-term energy resource.	
	2018	Successful dissemination of training, road maps, case studies, and vetted consultant lists creates both supply for On-site Energy Manager by qualified technical consultants and demand for the role at industrial sites.	

**Table 30. Continuous Energy Improvement Initiative Strategic Energy Management Results**<sup>74, 75, 76</sup>

**Approval Date:** May 23, 2016

**Launch Date:** November 22, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	34,500	34,500	26,250	131%	52,500	66%
	MWh Lifetime	-	-	-	517,500	517,500	262,500	197%	525,000	99%
	MMBtu Annual	-	-	-	267,000	267,000	203,000	132%	406,000	66%
	MMBtu Lifetime	-	-	-	4,005,000	4,005,000	2,030,000	197%	4,060,000	99%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	32,020	32,020	25,300	127%	50,600	63%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	480,297	480,297	253,000	190%	506,000	95%
	Annual Dollars	-	-	-	\$4.37	\$4.37	\$3.94	111%	\$7.88	55%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$65.54	\$65.54	\$39.40	166%	\$78.80	83%
	Dollars	-	-	-	\$54.62	\$54.62	\$42.00	130%	\$84.00	65%
Participants	Participants	-	-	-	-	-	10	-	40	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>74</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>75</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>76</sup> Program has received preliminary project specific estimates for a small subset of projects that are significantly higher than the project specific estimates applied to develop these targets.

**Table 31. Key Milestones for Continuous Energy Improvement Strategic Energy Management**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016 and 2017	Facilities understand how energy intensity is embedded in their process and have integrated energy management into their organizational culture. <ul style="list-style-type: none"> <li>• Facilities possess knowledge of Strategic Energy Management (have an energy map, identified goals and metrics, and have developed a project register identifying projects and an action plan for project implementation) and have a system for monitoring, tracking, and making decisions based on their energy use.</li> </ul>	The Strategic Energy Management solicitation closed May 2017. Eight participants were selected to participate in the first cohort. Participants will be starting SEM coaching in Q3 2017.
	2017 and beyond	Facility executives value and adopt Strategic Energy Management due to organizational change and systematic energy management that enables them to identify attractive investments for their facility. <ul style="list-style-type: none"> <li>• Continuation of energy champion and team beyond the cohort (for participating facilities) or the adoption of an energy champion and/or team (for new facilities).</li> <li>• Executive support to implement energy-related projects.</li> </ul>	The Strategic Energy Management solicitation closed May 2017. Eight participants were selected to participate in the first cohort. Participants will be starting SEM coaching in Q3 2017.
	2018 and beyond	Industrial facilities seek out developed information and standardized tools as well as contractor support to implement and adopt SEM. <ul style="list-style-type: none"> <li>• Tracked inquiries and dissemination of case studies, training, SEM resources, and vetted consultant list.</li> </ul>	
	2018 and beyond	SEM replaces the ad hoc energy project approach resulting in deeper and continuous energy savings and energy decision-making at industrial facilities <ul style="list-style-type: none"> <li>• Critical staff can express how the energy measures they've implemented have affected their bottom line.</li> <li>• Facilities realize one to two percent reductions in their energy consumption annually.</li> <li>• For large industrial facilities, this equates to approximately 150-300 MWh, 1,100-2,500 MMBtu Natural Gas, 75-160 MMBtu Oil, and \$100,000 in energy savings per participant in the first year.</li> </ul>	

**Table 32. Clean Energy Communities Initiative Results**<sup>77, 78, 79, 80</sup>

**Approval Date:** May 23, 2016

**Launch Date:** August 3, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	8,428	1,264	9,693	-	9,693	12,300	79%	118,700	8%
	MWh Lifetime	126,427	18,967	145,395	-	145,395	184,000	79%	1,780,000	8%
	MMBtu Annual	25,614	9,011	34,624	-	34,624	69,000	50%	667,000	5%
	MMBtu Lifetime	384,204	135,158	519,362	-	519,362	1,035,000	50%	10,000,000	5%
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	2,966	333	3,300	-	3,300	13,050	25%	125,900	3%
	MWh Lifetime	44,496	5,001	49,497	-	49,497	195,500	25%	1,889,000	3%
	MW	3	0.3	3	-	3	11	26%	107	3%
CO2e Emission Reduction (metric tons)	Annual Tons	7,443	1,372	8,816	-	8,816	17,250	51%	166,800	5%
	Lifetime Tons	111,647	20,587	132,233	-	132,233	259,000	51%	2,502,000	5%
Customer Bill Savings (millions)	Annual Dollars	\$1.74	\$0.31	\$2.05	-	\$2.05	\$4.01	51%	\$38.75	5%
	Lifetime Dollars	\$26.08	\$4.72	\$30.80	-	\$30.80	\$60.00	51%	\$580.30	5%
Private Investment (millions)	Dollars	\$2.59	\$0.43	\$3.03	-	\$3.03	\$8.35	36%	\$80.78	4%
Participants	Participants	9	4	13	-	13	20	65%	171	8%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>77</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>78</sup> Due to the split-funded nature of this program, NYSERDA is also tracking and reporting savings associated with completed High-Impact Actions in the Regional Greenhouse Gas Initiative (RGGI) report according to the percentage of RGGI funding currently committed for the Clean Energy Communities Program.

<sup>79</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>80</sup> NYSERDA makes no claim to the environmental attributes or any NYGATS certificates that may be associated with these projects.

**Table 33. Key Milestones for Clean Energy Communities**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
✓	2016–2019	Eighty communities complete and demonstrate replicability of four out of ten High-Impact Actions and submit successful grant applications to the Clean Energy Communities Program to complete innovative clean energy projects.	<p>Outreach contractors are actively engaging communities. Many local governments are working to complete High-Impact Actions. Eighty-three communities completed at least four actions and are officially designated Clean Energy Communities. In total, 199 Communities completed 529 High-Impact Actions, 394 of which were completed after program launch (considered 'new').</p> <p>Anticipated savings from the 394 'new' completed High-Impact Actions (when combined with savings reported in Regional Greenhouse Gas Initiative (RGGI) reporting), include the following:</p> <ul style="list-style-type: none"> <li>148,000 MWh Electricity Savings</li> <li>50,400 MWh Renewable Generation</li> <li>43 MW Renewable Generation</li> <li>418,000 MMBtu Natural Gas Savings</li> <li>2,520 MMBtu Gasoline Savings</li> <li>108,000 MMBtu #2 Fuel Oil Savings</li> </ul>
✓	2016–2019	After realizing the benefits associated with completing High-Impact Actions, many communities go on to pursue the more rigorous Climate Smart Communities (CSC) Certification. The number of Certified CSCs doubles, from 6 currently certified to 12 certified.	There are 14 Certified Climate Smart Communities.
	2016–2019	NYSERDA has conducted market research on impact of initial uptake of High-Impact Actions and has adjusted the Clean Energy Communities Program accordingly. NYSERDA will continuously compile feedback from communities on High-Impact Actions and associated tools and resources, and adjust accordingly.	NYSERDA is in the process of making minor revisions to the Clean Energy Communities Program to better accommodate the needs of communities and clarify program requirements.

**Table 34. Offshore Wind Master Plan Initiative Results**<sup>81, 82</sup>

**Approval Date:** May 23, 2016

**Launch Date:** September 15, 2016

Market Development Initiative Specific Results	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	-	-	*	-	*	-
Participants	Participants	-	-	-	-	-	*	-	*	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>81</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>82</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 35. Key Milestones for Offshore Wind Master Plan**

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	Publish an Offshore Wind Master Plan Blueprint to facilitate discussion and stakeholder engagement in the summer of 2016.	Blueprint completed and published on 9/15/16.
	2016–2017	Engage stakeholders in multiple meetings in 2016 and 2017 to review Offshore Wind Master Plan Blueprint and receive input for the Offshore Wind Master Plan.	<p>Stakeholder groups with whom NYSEERDA is engaging include the following:</p> <ol style="list-style-type: none"> <li>1. Coastal communities</li> <li>2. Commercial and recreational fishing</li> <li>3. Tribal nations</li> <li>4. Labor and business</li> <li>5. State and federal agencies</li> <li>6. Elected officials</li> <li>7. Offshore wind energy industry</li> <li>8. Submarine cables and offshore infrastructure</li> <li>9. Nongovernmental organizations</li> <li>10. Ratepayer advocates</li> </ol> <p>Quarterly updates on this outreach:</p> <ul style="list-style-type: none"> <li>• Open houses in Long Island were successfully executed on July 10, 11, and 12 with over 300 in person attendees. Open houses in New York City will be scheduled for August 2017.</li> <li>• Outreach to commercial fishing representatives is ongoing with one-on-one meetings underway and several larger open houses near fishing docks scheduled over the summer.</li> <li>• Eight meetings with elected officials in Long Island were completed in May and June with further meetings scheduled later in the summer.</li> <li>• Initial outreach to tribal nations, submarine and telecom cable industry, and Navy are complete.</li> <li>• Engagement with federal and state agencies is ongoing.</li> </ul>

Table 35 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016–2017	Publish the final Offshore Wind Master Plan, after completion of studies and no later than end of 2017.	<p>Studies and stakeholder outreach have commenced. Studies to be included are as follows:</p> <p><b>Environmental</b></p> <ul style="list-style-type: none"> <li>• Marine Wildlife Survey</li> <li>• Sea Floor and Benthic Survey (Mapping and Environmental Assessment)</li> <li>• Birds and Bats</li> <li>• Environmental Sensitivity and Permitting Risk</li> <li>• Fish and Fisheries</li> <li>• Marine Mammals and Sea Turtles</li> <li>• MetOcean (Wind, Waves and Current) Characterization</li> <li>• Sand and Gravel Resources</li> </ul> <p><b>Social and Regulatory</b></p> <ul style="list-style-type: none"> <li>• Aviation and Radar</li> <li>• Health and Safety</li> <li>• Shipping and Navigation</li> <li>• Marine Archeology and Cultural Resources</li> <li>• Onshore Permitting Constraints</li> <li>• Recreational Uses</li> <li>• Visual</li> </ul> <p><b>Economic and Infrastructure</b></p> <ul style="list-style-type: none"> <li>• Grid and Interconnection</li> <li>• Jobs and Economic Benefits</li> <li>• Offtake Mechanisms</li> <li>• Pipelines, Cables and Third-Party Infrastructure</li> <li>• Ports and Supply Chain</li> <li>• Project Cost Projections</li> <li>• Vessels</li> </ul>

**Table 36. Offshore Wind Pre-Development Activities Initiative Results**<sup>83, 84</sup>

**Approval Date:** May 23, 2016

**Launch Date:** December 12, 2016

Market Development Initiative Specific Results	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	-	-	*	-	*	-
Participants	Participants	-	-	-	-	-	*	-	*	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>83</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>84</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 37. Key Milestones for Offshore Wind Pre-Development Activities**

Complete ✓	Time Frame	Milestone	Explanation of Progress
		Reports resulting from predevelopment work validating New York State Offshore Wind resource and proposing potential additional wind energy areas for development.	Table 35 lists studies that are underway toward the completion of the Offshore Wind Master Plan. NYSERDA and other State agencies plan to use the results of these studies and stakeholder outreach to propose additional wind energy areas to the federal government later in 2017.
		Reports providing site-specific data needed to support detailed siting, design, and permitting of offshore wind project(s).	Studies and surveys are underway for site-specific environmental, sea floor, and other physical characteristics needed for siting and permitting. The first reports will be published in Q3 2017.

**Table 38. REV Connect Initiative Results**<sup>85, 86</sup>

**Approval Date:** May 23, 2016

**Launch Date:** August 9, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	-	-	\$0.13	-	\$0.50	-
Participants	Participants	-	-	-	-	-	*	-	*	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>85</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>86</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 39. Key Milestones for REV Connect**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
✓	Q3 2016	Execute contract with partner to operate REV Connect.	REV Connect contractor competitively selected and under contract.
✓	Q2 2017	Create information resources and summarize best practices.	Initial market research interviews completed and findings summarized. Information resources created and include descriptions of innovation and partnership opportunities with NYS utilities, profiles of each utility, and briefings on the REV regulatory proceeding.
✓	Q2 2017	Develop project evaluation criteria and process.	Project evaluation criteria and process are developed and in use.
	Q3 2017	Launch initial REV Connect platform to allow submission of project ideas.	The REV Connect web platform is being tested now and is scheduled to be available later this summer.
	Q4 2017	Draft Innovation Plan completed.	

**Table 40. Reducing Barriers to Deploying Distributed Energy Storage Initiative Results<sup>87, 88</sup>**

**Approval Date:** August 17, 2016

**Launch Date:** November 7, 2016 issued Request for Proposals (RFP) seeking technical assistance contractors.  
April 19, 2017 issued value-stacking pilot competitive solicitation.

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	1,690	1,690	1,300	130%	13,800	12%
	MWh Lifetime	-	-	-	16,900	16,900	13,000	130%	138,000	12%
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	3	3	2	141%	25	13%
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	889	889	685	130%	7,260	12%
	Lifetime Tons	-	-	-	8,892	8,892	6,850	130%	72,600	12%
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$0.22	\$0.22	\$0.17	130%	\$1.84	12%
	Lifetime Dollars	-	-	-	\$2.25	\$2.25	\$1.73	130%	\$18.35	12%
Private Investment (millions)	Dollars	-	-	-	\$0.15	\$0.15	\$4.25	4%	\$30.00	1%
Number of customers engaged (sites for developments)	Participants	-	-	-	3	3	15	20%	120	3%
Number of vendors engaged	Participants	-	-	-	55	55	8	733%	45	122%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>87</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>88</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 41. Key Milestones for Reducing Barriers to Deploying Distributed Energy Storage**

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	Issue solicitation to competitively select technical consultants and organizations to assist with soft cost reduction strategies, quality assurance, and feasibility studies under value-stacking pilots.	Solicitation released in November 2016.
	2017	Lead acid, lithium-ion, and flow batteries are independently tested with results aggregated into first responder training materials for authorities having jurisdiction.	Battery testing completed on li-ion, lead acid, and flow battery chemistries. <sup>89</sup> The data is being incorporated into first responder training materials.
✓	2017	Technical consultants or organizations to assist with soft cost reduction strategies, quality assurance, and feasibility studies are selected.	Four technical assistance contractors were selected under a competitive solicitation.
✓	2017	Launch a competitive program funding value-stacking pilots.	Solicitation released in April 2017.
	2017	Expand scope of battery testing lab for additional chemistries to be tested.	Engaging with National Fire Protection Association and Sandia National Lab to discuss possible larger scale safety testing. This could remove ambiguity preventing clear permitting requirements for lithium-ion systems inside buildings in New York City, initially, with results and lessons disseminated to other authorities having jurisdiction (AHJ) in New York State. Exterior siting requirements are moving toward a set of guidelines or technical bulletins to be issued by Fire Department of New York (FDNY) and/or the NYC Department of Buildings (DOB) later this year.
	2017	Model permitting guides are developed.	Weekly meetings concluded with FDNY, DOB, NYSERDA and subject matter experts from DNV GL and the City University of New York (CUNY); developing clear permitting guidelines for exterior advanced battery systems that can be promulgated as guidelines or a bulletin by FDNY/DOB.

<sup>89</sup> <https://www.nysersda.ny.gov/-/media/Files/Publications/Research/Energy-Storage/20170118-ConEd-NYSERDA-Battery-Testing-Report.pdf>

**Table 41 Continued**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Public platform is launched including use cases, system performance results, and fact sheets.	The DG Integrated Data System ( <a href="http://dg.nyserda.ny.gov">http://dg.nyserda.ny.gov</a> ) is under development, which will include a new energy storage page, with support from CDH Energy Corp. (CDH). The storage team provided input into DG Integrated Data System needs utilizing existing storage web site for content. Best fit customer analysis for interval-metered customers initially with ERS and performance validation development work with Cadmus is underway. CUNY is engaged with permitting development and Authorities Having Jurisdiction (AHJ) training expansion (later in 2017-18), and New York Battery & Energy Storage Technology Consortium (NY-BEST) will be expanding their work with vendor engagement for tariff optimization/ customer acquisition.
	2017	Customers with deployed energy storage systems begin engaging for post-installation quality assurance to validate savings.	Initial concepts for pilot projects are being reviewed and energy storage Measurement & Verification (M&V) protocols and requirements are in development with support from Cadmus. Cadmus, the selected technical assistance contractor for performance validation on deployed systems, is developing a measurement plan for energy storage systems that are deployed. Performance and revenue/savings information will be aggregated onto the DG Integrated Data System as well as an M&V proposal for independent bill forensics and post-installation examination for deployed systems supported by NYSERDA value-stacking pilot funding or for which the customer would like independent bill analysis (pre- and post-installation) and opportunities to expand revenue or savings from the system. NYSERDA expects to have an M&V protocol and process in place for incorporating into DG Integrated Data System by end of Q4 2017.

**Table 41 Continued**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2017	Safety testing is completed on additional emerging commercial chemistries.	In June 2017 NYSERDA starting to scope additional testing needs required to meet authority having jurisdiction needs, especially NYC FDNY and DOB.
	2017	Market segmentation for NYSERDA customer acquisition activities supported under this investment plan expands to non-interval metered customers.	Work is underway to begin analyzing best fit interval-metered customers with support from Energy and Resource Solutions (ERS) to identify characteristics of best fit customers for bankable, behind-the-meter energy storage installations. ERS will identify the characteristics of a customer who is likely to correlate as a good fit for energy storage. ERS has an in-house modeling tool that is being expanded, has begun compiling sources of data on interval-metered accounts, and will examine the methods for extending the findings to sites with demand meters. On-site metering of non-interval customers may take place in future stages when prudent.
	2017	Increasing numbers of customers seek information on storage solutions to mitigate their peak demand and electricity requirements, as determined through vendor interviews and the number of permits submitted to authorities having jurisdiction, surveyed at least annually.	Soft cost reduction work is underway, which includes initial vendor, customers, and AHJ outreach, engagement, and training with support from ERS, NY-BEST, and CUNY. Have been engaging with increasing numbers of potential customers or vendors as demonstrated on metrics table. Survey to refine baseline soft cost portion (about \$220/kwh) for a four-hour advanced battery system (li-ion) in NYC is being finalized.

**Table 41 continued**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2017	Increasing numbers of energy storage vendors are engaged in New York State, as surveyed at least annually.	Soft cost reduction work is underway, which includes initial vendor, customers, and AHJ outreach, engagement, and training with support from ERS, NY-BEST, and CUNY. Increasing numbers of vendors connecting with NYSERDA energy storage team and our technical assistance contractors to learn more about REV developments and the Value of Distributed Energy Resources (VDER) proceeding; metrics table presents month-to-month trends in number of new connections. We have been pleased by the number of energy storage developers, system integrators, and solar photovoltaic (PV) developers who are pursuing projects in NYS.
	2018	Safety testing is completed on additional emerging commercial chemistries.	
	2018	Model permitting guides are updated.	
	2018	Convincing use cases and best-fit customer characteristics and acquisition tools are publicized.	
	2018	Pilots convert prospective installations into installed energy storage projects that are used to provide customer benefit and address electric system needs.	
	2019	Independent validation assesses the ability of aggregated customer-sited storage systems to provide locational relief to the distribution utility or NYISO when called upon.	
	2019	During the pilot period, NYSERDA direct support for specific projects is reduced annually as installation cost decreases, revenue opportunities are better quantified, and results of pilots increase performance confidence.	

**Table 42. Electric Vehicles Rebate Initiative Results**<sup>90, 91, 92</sup>

**Approval Date:** August 17, 2016

**Launch Date:** March 21, 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2020)	% of Total Target through Initiative Completion (2020)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	57,791	57,791	-	57,791	125,000	46%	1,430,000	4%
	MMBtu Lifetime	-	577,912	577,912	-	577,912	1,250,000	46%	14,300,000	4%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	2,384	2,384	-	2,384	6,700	36%	76,730	3%
Customer Bill Savings (millions)	Lifetime Tons	-	23,844	23,844	-	23,844	67,000	36%	767,300	3%
	Annual Dollars	-	\$0.04	\$0.04	-	\$0.04	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	\$0.36	\$0.36	-	\$0.36	*	-	*	-
	Dollars	-	\$43.33	\$43.33	-	\$43.33	\$90.00	48%	\$1,027.00	4%
Participants	Participants	-	1,238	1,238	-	1,238	2,563	48%	29,250	4%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>90</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>91</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>92</sup> Energy Efficiency values represent MMBtu savings from the use of electric vehicles; the electricity required to charge the vehicle (3,340 MWh cumulative annual and 33,340 MWh lifetime) is netted out of the emission reduction and customer bill savings values shown in this table. Emission reductions and customer bill savings are net, including both MMBtu that add to the benefits and the electricity required to charge the electric vehicles that subtract from the benefits.

**Table 43. Key Milestones for Electric Vehicles Rebate**

Complete	Time Frame	Milestone	Explanation of Progress
✓			
✓	2016	EV Rebate Program Launch.	Program launched March 21, 2017.

**Table 44. 2030 Greenhouse Lighting and Systems Engineering (GLASE) Initiative Results<sup>93, 94</sup>**

**Approval Date:** September 15, 2016

**Launch Date:** January 1, 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2022)	% of Total Target through Initiative Completion (2022)
Energy Efficiency	MWh Annual	-	-	-	3,470	3,470	3,470	100%	3,470	100%
	MWh Lifetime	-	-	-	34,700	34,700	34,700	100%	34,700	100%
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	1,826	1,826	1,830	100%	1,830	100%
	Lifetime Tons	-	-	-	18,258	18,258	18,300	100%	18,300	100%
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$0.29	\$0.29	\$0.29	101%	\$0.29	101%
	Lifetime Dollars	-	-	-	\$2.91	\$2.91	\$2.92	100%	\$2.92	100%
Private Investment (millions)	Dollars	-	-	-	\$9.46	\$9.46	\$9.46	100%	\$9.46	100%
Participants	Participants	-	-	-	-	-	3	-	25	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>93</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>94</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 45. Key Milestones for Greenhouse Lighting and Systems Engineering (GLASE)**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
✓	2016	Contract with core Consortium members.	Contracts in place as of February 2017.
✓	2016	Review and approve Scientific Advisory Panel structure.	The Scientific Advisory Board candidates have been chosen as of March 2017.
	2017	Review and approve Consortium business plan to attain financial self-sustainability in 2023.	
	2018	Monitor small (6,000 square feet) pilot demonstration of a basic light and shade control system.	
	2018	Publish case study of demonstration.	
	2019	Monitor small (6,000 square feet) pilot demonstration of CO <sub>2</sub> supplementation integrated with the light and shade control system.	
	2019	Monitor large (20,000 square feet) pilot demonstration of a basic light and shade control system.	
	2019	Publish case study of demonstrations.	
	2020	Monitor small (6,000 square feet) pilot demonstration of efficient LED lights integrated with the CO <sub>2</sub> supplementation and light and shade control system.	
	2020	Monitor large (20,000 square feet) pilot demonstration of CO <sub>2</sub> supplementation integrated with the light and shade control system.	
	2020	Publish case study of demonstrations.	
	2021	Monitor large (20,000 square feet) pilot demonstration of efficient LED lights integrated with the CO <sub>2</sub> supplementation and light and shade control system.	
	2021	Publish case study of demonstration.	
	2021	Formal training offered to service providers.	

**Table 46. RetrofitNY Initiative Results**<sup>95, 96</sup>

**Approval Date:** August 31, 2016

**Launch Date:** April 4, 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	-	-	-	-	187,100	-
	MWh Lifetime	-	-	-	-	-	-	-	3,742,000	-
	MMBtu Annual	-	-	-	-	-	-	-	3,356,000	-
	MMBtu Lifetime	-	-	-	-	-	-	-	67,130,000	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	-	-	290,200	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	-	-	5,804,000	-
	Annual Dollars	-	-	-	-	-	-	-	\$56.16	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	-	-	\$1,122	-
	Dollars	-	-	-	-	-	-	-	\$1,411	-
Participants	Participants	-	-	-	-	-	85	-	100,000	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>95</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>96</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 47. Key Milestones for RetrofitNY**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016	Criteria to be met by technical solutions are defined.	Criteria have been drafted in collaboration with the organizations that compose the Advisory Committee: NYS Homes and Community Renewal, NY Power Authority, NYC Housing Preservation and Development, NYC Housing Development Corporation, NYC Housing Authority, Community Preservation Corporation, U.S. Department of Housing and Urban Development (HUD).
	2017	Sufficient potential demand for deep energy retrofits is aggregated.	The demand aggregation and the identification of potential pilot sites and portfolios are proceeding on schedule.
	2017	Competitive solicitation for the first round of the design-build competition is released.	NYSERDA is finalizing the strategy to engage design teams and building owners through this solicitation. The solicitation is under development and is anticipated to be released Q3 2017.
	2018	One or more solutions are built and tested through the design-build competition.	
	2020	Solution(s) are adapted to additional building typologies.	
	2020	Financial products that are adapted to affordable housing entities' processes and are compatible with federal and State rules that apply to affordable housing are developed and made available.	
	2022	Retrofit solutions are integrated in the public housing authorities' and affordable housing regulators' preservation strategies.	
	2025	Retrofit solutions are cost effective and NYSERDA subsidies are no longer necessary.	
	2025	Building components and systems required for deep energy retrofits are readily available in the New York State market.	
	2025	Financing solutions exist for building owners to purchase these solutions with minimal upfront cost.	
	2025	Solutions are implemented on non-Affordable Housing buildings without subsidy.	

**Table 48. REVitalize Initiative Results**<sup>97, 98, 99</sup>

**Approval Date:** August 31, 2016

**Launch Date:** June 27, 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	881	-	2,994	-
	MWh Lifetime	-	-	-	-	-	17,600	-	59,880	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	1	-	2	-
	Annual Tons	-	-	-	-	-	463	-	1,575	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	9,260	-	31,500	-
	Annual Dollars	-	-	-	-	-	\$0.14	-	\$0.48	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	\$2.78	-	\$9.46	-
	Dollars	-	-	-	-	-	\$1.88	-	\$5.88	-
Participants	Participants	-	-	-	-	-	3	-	5	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>97</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>98</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>99</sup> NYSERDA makes no claim to the environmental attributes or any NYGATS certificates that may be associated with these projects.

**Table 49. Key Milestones for REVitalize**

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Issue a competitive solicitation seeking proposals for a community energy planning effort that benefits low-to-moderate income (LMI) communities and residents.	REVitalize, RFP 3584, was launched June 27, 2017. Proposals are due September 11, 2017.
	2017	Selection of five communities to receive financial and technical support, contract development, and contract execution by Q2 2017.	
	2017	Commencement of community planning activities, development of community plan, testing of the toolkit.	
	2017	Community-scale clean energy project development and implementation started.	
	2018	NYSERDA receives feedback from community groups and on the toolkit.	
	2019	Completion of five community energy projects.	
	2019	NYSERDA refines toolkit and conducts technology transfer to communicate effective models of finance and ownership, as well as the toolkit.	

**Table 50. Low-Income Forum on Energy Initiative Results**<sup>100, 101</sup>

**Approval Date:** August 31, 2016

**Launch Date:** August 31, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Participants	Participants	422	519	941	-	941	569	165%	7,629	12%

**Table 51. Key Milestones for Low-Income Forum on Energy**

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Issue a competitive solicitation for program support.	The solicitation was issued March 23, 2017.
✓	2017	Implement a series of regional meetings across the State in Q2 of 2017.	A series of seven LIFE 2017 Regional Meetings were held throughout May 2017. The meeting series included each of the following NYS regions: New York City, Long Island, Western New York, Southern Tier, North Country, Hudson Valley, Capital Region. In total, there were 445 participants in attendance, representing 236 organizations.
	2018	Implement a statewide conference in Q2 of 2018.	Planning for the LIFE 2018 Statewide Conference, to be held in May 2018, will begin in Q3 2017.
	2019	Issue a competitive solicitation for program support or issue a contract extension for existing implementation services.	A competitive solicitation for program support or a contract extension for existing implementation services will be initiated, as applicable.

<sup>100</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>101</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 51 continued**

Complete	Time Frame	Milestone	Explanation of Progress
	2019	Implement a series of regional meetings across the State in Q2 of 2019.	Planning for the LIFE 2019 Regional Meetings, to be held in May 2019, will begin in Q3 2018.
	2020	Implement a statewide conference in Q2 of 2020.	Planning for the LIFE 2020 Statewide Conference, to be held in May 2020, will begin in Q3 2019.
	2021	Implement a series of regional meetings across the State in Q2 of 2021.	Planning for the LIFE 2021 Regional Meeting Series, to be held in May 2021, will begin in Q3 2020.
	2022	Issue a competitive solicitation for program support or issue a contract extension for existing implementation services.	A competitive solicitation for program support or a contract extension for existing implementation services will be initiated, as applicable.
	2022	Implement a statewide conference in Q2 of 2022.	Planning for the LIFE 2022 Statewide Conference, to be held in May 2022, will begin in Q3 2021.
	2023	Implement a series of regional meetings across the State in Q2 of 2023.	Planning for the LIFE 2023 Regional Meeting series, to be held in May 2023, will begin in Q3 2022.
	2024	Issue a competitive solicitation for program support or issue a contract extension for existing implementation services.	A competitive solicitation for program support or a contract extension for existing implementation services will be initiated, as applicable.
	2024	Implement a statewide conference in Q2 of 2024.	Planning for the LIFE 2024 Statewide Conference, to be held in May 2024, will begin in Q3 2023.

**Table 52. Key Milestones for Healthy Homes Feasibility**

**Approval Date:** August 31, 2016

**Launch Date:** January 20, 2017

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Complete feasibility study and decide on whether to continue with the pilot design and implementation phase.	The feasibility study is currently underway. Completion of the study is anticipated in Q3 2017.
	2017	Begin the pilot design phase, if NYSERDA and NYS agency partners decide to go forward.	Pending the completion of the feasibility study, the pilot design phase is anticipated during Q4 2017.
	2017	Pilot design is complete.	
	2017	Commencement of pilot activities.	
	2018	Preliminary determination of health benefits and healthcare cost savings.	
	2021	Dissemination of pilot results which may include peer-reviewed papers, presentations at conferences, and a white paper to share with potential long-term funders including Medicaid, HUD, Foundations, and others.	

**Table 53. Industry Partnerships Initiative Results** <sup>102, 103, 104</sup>

**Approval Date:** September 15, 2016

**Launch Date:** January 13, 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	38,565	38,565	4,610	837%	90,270	43%
	MWh Lifetime	-	-	-	308,517	308,517	36,800	838%	722,200	43%
	MMBtu Annual	-	-	-	262,078	262,078	30,500	859%	597,700	44%
	MMBtu Lifetime	-	-	-	2,096,622	2,096,622	244,000	859%	4,781,000	44%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	34,224	34,224	4,040	847%	79,200	43%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	273,790	273,790	32,300	848%	633,600	43%
	Annual Dollars	-	-	-	\$6.58	\$6.58	\$0.78	843%	\$15.31	43%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$52.61	\$52.61	\$6.25	842%	\$122.40	43%
	Dollars	-	-	-	\$3.12	\$3.12	\$1.13	276%	\$6.85	46%
Participants	Participants	-	-	-	8	8	13	62%	24	33%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>102</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>103</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>104</sup> Cumulative Current Targets are not in alignment with committed benefits. NYSERDA will revise these targets in a future filing with the Department of Public Service.

**Table 54. Key Milestones for Industry Partnerships**

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	Convene industry partners for building operation and maintenance.	Building operations and maintenance partners were convened.
✓	2016	Identify employer champions, those who will help NYSERDA to lead the initiative, for building operations and maintenance.	NYSERDA continues to engage with industry leaders for strategic planning and to collaborate on demonstration projects.
✓	2016	Identify common labor-related barriers and potential training interventions.	Barriers have been identified, such as the lack of hands-on or on-site training after classroom training. Potential interventions have been identified and are being tested with industry partners and the market.
	2016	Identify additional areas (by sectors, industry, or technology) to initiate industry partnership strategy to address workforce development and training needs to advance goals of CEF.	NYSERDA continues to consider potential industries or sectors that are suitable for partnership strategies. Those currently under consideration include large-scale renewables, industrial technologies (specifically compressed air) and geothermal.
✓	2017	Implement one to two business case demonstrations to show value of operations and maintenance training.	Several business case demonstrations are underway and will continue through 2017.
	2017	Begin to collect data from demonstration sites.	Demonstration sites have been identified and, in some cases, data loggers have been installed.
	2017	Identify additional demonstrations (for a total of six business case demonstrations identified and implemented) for implementation in 2017.	Several opportunities for additional business case demonstrations have been identified, NYSERDA continues to identify additional sites.
✓	2017	Issue a solicitation to support the development of building operations and maintenance training initiatives that address skill gaps and facilitate career paths.	The Building Operations and Maintenance Workforce Development Training Program, PON 3442, was issued in January 2017.
	2017	Issue contracts resulting from the solicitation(s).	PON 3442, an open enrollment solicitation, will begin accepting applications in January 2017 and will continue through July 13, 2017 or while funds are available. Seven contracts are currently under negotiation.

**Table 54 continued**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2017	Revise and reissue solicitation, one to two additional times, if necessary based on results and findings from the solicitation issued in January 2017.	
	2017	Data collected from demonstration sites to help demonstrate the business case for training.	
	2017	Case studies shared with industry.	
	2017	Templates available to illustrate models and training options.	
	2018	Data collection from all demonstrations completed.	
	2018	Execute any remaining contracts from 2017 solicitation, if applicable.	

**Table 55. Community Energy Engagement Initiative Results**<sup>105, 106</sup>

**Approval Date:** March 27, 2017

**Anticipated Launch Date:** Q3 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	-	-	\$0.87	-	\$1.73	-
Participants	Participants	-	-	-	-	-	1,680	-	3,355	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>105</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>106</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 56. Key Milestones Community Energy Engagement**

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	NYSERDA issues competitive “base-activities” solicitation.	The Community Energy Engagement Program solicitation (RFP 3588) was issued on May 2, 2017.
	2017	Awards from base-activity solicitation are contracted.	Contracts under RFP 3588 will be negotiated during Q3 2017.
	2017	Commencement of local outreach and support to households and communities (with the focus on LMI).	Anticipated for Q3 2017
	2018	NYSERDA initiates awards proposals for regional-specific pilot projects.	
	2018–2020	NYSERDA develops one or more case studies on regional-specific pilot projects and other support provided through the base activities.	
	2019	Conduct surveys of customers assisted by Local Based Organizations (LBO) to assess performance.	

**Table 57. Underutilized Product Support**<sup>107, 108, 109</sup>

**Approval Date:** May 16, 2017

**Anticipated Launch Date:** Q3 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2020)	% of Total Target through Initiative Completion (2020)
Energy Efficiency	MWh Annual	-	-	-	-	-	1,150	-	89,790	-
	MWh Lifetime	-	-	-	-	-	15,000	-	1,167,000	-
	MMBtu Annual	-	-	-	-	-	8,700	-	399,000	-
	MMBtu Lifetime	-	-	-	-	-	131,000	-	5,985,000	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	940	-	62,610	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	12,900	-	844,600	-
	Annual Dollars	-	-	-	-	-	\$0.29	-	\$17.96	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	\$3.97	-	\$245.50	-
	Dollars	-	-	-	-	-	\$2.89	-	\$161.30	-
Advanced Rooftop Units	Participants	-	-	-	-	-	25	-	2,190	-
Air Source Heat Pumps		-	-	-	-	-	250	-	11,430	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>107</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>108</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>109</sup> Energy Efficiency values represent MWh savings from ARTUs and MMBTU savings from ASHPs; the electricity required to utilize the RH&C technology is netted out of the emission reduction and customer bill savings values shown in this table.

**Table 58. Key Milestones Underutilized Product Support<sup>110</sup>**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Launch open enrollment incentive program for Advanced Rooftop Units (ARTU).	Launch moved to 2018.
	2017	Release solicitation for shared awareness and education campaigns, as well as customer targeting and acquisition.	The solicitation is in development expected to be released in 2017.
	2017	HVAC trainings assessed and compiled to facilitate increased contractor participation.	Systems are in the process of being built to facilitate the publishing and distribution of manufacturer trainings. These systems should be completed in 2018.
	2017	Case studies developed and deployed in the market, along with current resources from regional and national organizations.	
	2017	Issue competitive solicitation for technical analysis related to product and appliance standards.	The solicitation is in development expected to be released in 2017.
	2018	Efficiency and cost calculator released in the market.	
	2018	Mapping tool for Air-Source Heat Pumps (ASHP) potential released in the market.	
	2018	Launch open enrollment incentive program for ASHPs.	Anticipated launch in Q3 2017.
	2018	Issue competitive solicitation to identify and test alternative business models.	
	2018	Issue competitive solicitation for pilots to identify and deploy solutions for the integration of traditional and advanced systems, such as ASHPs.	Working with regional partners to share the knowledge learned on current pilots to inform this solicitation.
	2019	Issue open solicitation to expand alternative business models based on results from competitive solicitation in 2018.	

<sup>110</sup> The launch dates for the ASHP and ARTU are not in alignment with what was presented in the investment plan. NYSERDA will correct these launch dates in a future filing based on guidance from the Department of Public Service.

**Table 59. Renewable Heat NY Initiative Results** <sup>111, 112</sup>

**Approval Date:** May 16, 2017

**Launch Date:** May 9, 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	1,730	-	17,640	-
	MMBtu Lifetime	-	-	-	-	-	34,700	-	352,900	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	128	-	1,296	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	2,550	-	25,920	-
	Annual Dollars	-	-	-	-	-	\$0.04	-	\$0.45	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	\$0.89	-	\$9.03	-
	Dollars	-	-	-	-	-	\$1.28	-	\$15.36	-
Participants	Participants	-	-	-	-	-	185	-	1,629	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>111</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>112</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 60. Key Milestones Renewable Heat NY**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Modify incentives to reflect current market conditions and re-issue open enrollment solicitation.	Updated pellet stove program requirements to include minimum 70% efficiency requirement. The Renewable Heat NY Biomass Boiler Program, PON 3010, is currently being revised.
	2017	Contract with Alliance for Green Heat to provide funding to Wood Stove Design Challenge on an annual basis through 2019.	Planning for the 2018 Wood Stove Design Challenge by the Alliance for Green Heat is underway. This competition will focus on automated wood stoves and will be held at the National Mall in Washington D.C. November 9-14, 2018. <sup>113</sup>
	2017	Launch marketing campaign.	Marketing campaign design discussions are underway. The program will seek feedback/input from Biomass Advisory Group meeting on July 28, 2017.
	2018	Contract with research partners to provide studies on wood smoke and public health.	
	2018	Launch community sponsored purchasing campaigns.	
	2018	Contract with manufacturers selected under competitive solicitation.	
	2019	Issue competitive solicitation to seek proposals from advanced biomass heating equipment manufacturers on technology improvements.	
	2019	Reissue workforce development program based on market feedback.	

<sup>113</sup> <http://forgreenheat.org/2018-stovedesign/stovedesign.html>

**Table 61. Heat Pumps and Solar Thermal Initiative Results**<sup>114, 115, 116</sup>

**Approval Date:** May 16, 2017

**Launch Date:** May 30, 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	38,100	-	841,600	-
	MMBtu Lifetime	-	-	-	-	-	955,000	-	21,040,000	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	1,700	-	34,810	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	42,400	-	870,300	-
	Annual Dollars	-	-	-	-	-	\$0.29	-	\$5.63	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	\$7.15	-	\$140.80	-
	Dollars	-	-	-	-	-	\$2.28	-	\$122.90	-
Participants	Participants	-	-	-	-	-	77	-	3,487	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>114</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>115</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

<sup>116</sup> Energy Efficiency values represent MMBtu savings from the use of renewable heating and cooling technologies; electricity required to utilize the RH&C technology is netted out of the emission reduction and customer bill savings values shown in the table.

**Table 62. Key Milestones Heat Pumps and Solar Thermal**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2017	Solicit for and contract with technical support contractor for community campaigns	Solicitation under development and is expected to be released Q3 2017.
	2017	Launch GSHP contractor mentoring program.	Contract under development for designing the mentoring program. RFQ for mentors expected to be issued Q4 2017.
	2017	Release competitive solicitation to select community campaigns (repeat annually).	Solicitation under development and is expected to be released Q3 2017.
✓	2017	Release open enrollment solicitation for GSHP incentive.	The Ground Source Heat Pump GSHP Rebate (PON 3620) was released on May 30, 2017.
✓	2017	Provide list of qualified GSHP designers, installers, and drillers to market.	As of June 30, 2017, 30 qualified GSHP designers, installers and drillers were listed on NYSERDA's website.
	2017	Contract with consultants to perform QA and design review for GSHP incentive projects.	Contracts are under development and will be issued Q3 2017.
	2018	Provide marketing toolkit and installer selection model solicitations to pilot community campaigns.	
	2018	Launch community campaigns (repeat annually).	
	2018	Contract with consultants to perform screening assessments and schematic designs for college and university campuses and State and local buildings.	
	2018	Provide standardized contracts and best practices manual to market.	
	2018	Complete assessment of M&V methodologies for system performance and share with market participants.	
	2019	Disseminate RH&C case studies and design and installation best practices to the market.	
	2019	Develop aggregated procurement for colleges and universities and State and local buildings.	
	2024	Complete commissioning and M&V on large commercial, campus, and State and local building projects.	

**Table 63. Low-to-Moderate Income Multifamily Resource Acquisition Transition Initiative Results**<sup>117, 118</sup>

**Approval Date:** February 29, 2016

**Launch Date:** May 19, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	-	-	-	2,391	2,391	3,070	78%	47,720	5%
	MWh Lifetime	-	-	-	35,864	35,864	46,050	78%	716,100	5%
	MMBtu Annual	-	-	-	43,813	43,813	41,850	105%	650,100	7%
	MMBtu Lifetime	-	-	-	657,197	657,197	628,500	105%	9,762,000	7%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	3,587	3,587	4,055	88%	62,990	6%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	53,808	53,808	60,850	88%	945,900	6%
	Annual Dollars	-	-	-	\$0.58	\$0.58	\$0.85	69%	\$13.15	4%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$8.75	\$8.75	\$12.69	69%	\$197.00	4%
	Dollars	-	-	-	-	-	\$13.23	-	\$175.54	-
Number of Units Served	Participants	-	-	-	2,322	2,322	2,461	94%	39,464	6%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>117</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>118</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 64. Key Milestones for LMI Multifamily**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Increase incentive levels, and decrease minimum threshold.	
	2017	Host annual Provider Summit understand market impacts and future needs.	
	2018-2021	Continue to evaluate market response to incentive levels and thresholds and adjust as needed.	

**Table 65. Low-to-Moderate Income Single-Family, Low-Income Resource Acquisition Transition Initiative Results** <sup>119, 120, 121, 122</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	3,754	1,110	4,863	1,648	6,512	6,775	96%	29,620	22%
	MWh Lifetime	56,307	16,646	72,952	24,721	97,674	101,600	96%	444,500	22%
	MMBtu Annual	96,889	28,549	125,438	44,436	169,873	183,000	93%	729,000	23%
	MMBtu Lifetime	2,422,227	713,720	3,135,946	1,110,889	4,246,836	4,575,000	93%	14,970,000	28%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	7,283	2,135	9,418	3,293	12,711	13,850	92%	56,750	22%
Customer Bill Savings (millions)	Lifetime Tons	162,317	47,533	209,850	73,655	283,504	311,500	91%	1,078,000	26%
	Annual Dollars	\$1.67	\$0.51	\$2.18	\$0.85	\$3.03	\$3.29	92%	\$13.55	22%
Private Investment (millions)	Lifetime Dollars	\$37.06	\$11.19	\$48.25	\$18.53	\$66.78	\$71.50	93%	\$251.50	27%
	Dollars	-	-	-	-	-	\$0.38	-	\$5.70	-
Participants	Participants	6,947	1,968	8,915	3,020	11,935	13,027	92%	53,948	22%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>119</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>120</sup> Completed projects through March 31, 2017 contains adjustments due to lagged data and QA/QC.

<sup>121</sup> Cumulative Current Target through Q2 2017 and Total Target through Initiative Completion (2019) included discounts based on historical performance; however, current benefits have not been discounted. Future impact evaluations will inform the level of realized savings.

<sup>122</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 66. Low-to-Moderate Income and Single-Family, Moderate-Income Resource Acquisition Transition Initiative Results** <sup>123, 124, 125</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	1,272	302	1,574	67	1,641	1,585	104%	4,236	39%
	MWh Lifetime	19,079	4,534	23,613	1,009	24,622	23,700	104%	63,520	39%
	MMBtu Annual	65,170	11,699	76,869	4,968	81,837	86,550	95%	282,300	29%
	MMBtu Lifetime	1,629,249	292,479	1,921,728	124,200	2,045,929	2,170,000	94%	5,986,000	34%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	4,490	838	5,328	327	5,655	5,740	99%	18,160	31%
Customer Bill Savings (millions)	Lifetime Tons	105,562	19,362	124,924	7,813	132,737	134,750	99%	368,400	36%
	Annual Dollars	\$0.92	\$0.16	\$1.08	\$0.08	\$1.16	\$1.30	89%	\$4.08	28%
Private Investment (millions)	Lifetime Dollars	\$21.48	\$3.72	\$25.20	\$1.80	\$27.00	\$30.15	90%	\$82.50	33%
	Dollars	\$10.81	\$2.41	\$13.22	\$0.99	\$14.21	\$13.85	103%	\$43.06	33%
Participants	Participants	2,194	503	2,697	207	2,904	3,099	94%	11,258	26%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>123</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>124</sup> Cumulative Current Target through Q2 2017 and Total Target through Initiative Completion (2019) included discounts based on historical performance; however, current benefits have not been discounted. Future impact evaluations will inform the level of realized savings.

<sup>125</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 67. Key Milestones for Single-Family LMI Residential**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Host regional contractor meetings to gather stakeholder input.	Four regional meetings are scheduled that will take place in July and include Syracuse, Mt. Kisco, Latham, and Batavia. Following the meetings, contractor feedback will be compiled and reviewed by program staff.
	2017	Competitive solicitation for technical implementation services.	The Technical Services Implementation RFP was issued during Q2 2017. NYSERDA anticipates awarding the contract in Q3.
	2017	Deploy new low-income referral tracking database.	During Q2 the development work on the referral database was primarily completed, with testing and training activities expected to be finalized for a system-live date in Q3.
	2017	Update policies and procedures manual.	This is ongoing as systems and implementation roles transition. The next release is expected in Q4 2017.
	2018	Host regional contractor meetings to gather stakeholder input.	

**Table 68. Energy Management Information System Initiative Results** <sup>126, 127</sup>

**Approval Date:** June 23, 2017

**Anticipated Launch Date:** Q3 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2022)	% of Total Target through Initiative Completion (2022)
Energy Efficiency	MWh Annual	-	-	-	-	-	-	-	67,050	-
	MWh Lifetime	-	-	-	-	-	-	-	670,500	-
	MMBtu Annual	-	-	-	-	-	-	-	992,500	-
	MMBtu Lifetime	-	-	-	-	-	-	-	9,925,000	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	-	-	91,380	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	-	-	913,800	-
	Annual Dollars	-	-	-	-	-	-	-	\$14.12	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	-	-	\$141.21	-
	Dollars	-	-	-	-	-	-	-	\$3.19	-
Participants	Participants	-	-	-	-	-	-	-	79	-

<sup>126</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>127</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 69. Key Milestones for Energy Management Information Systems**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Develop and release RFP for qualified EMIS vendors.	A Request for Qualifications (RFQ) has been drafted jointly with Commercial and Multifamily teams with release expected in the first half of Q4.
	2017	Solicit and contract with EMIS assessment provider(s).	Fact-gathering was conducted with Industrial Team Technical Reviewers to understand assessment capabilities and establish potential cost of assessment. The scope of work and project workflow will be established by the latter half of Q4 2017.
	2017	Develop solicitation for participants.	A PON has been drafted jointly with Commercial and Multifamily teams with release expected in the first half of Q4.
	2017	Develop and disseminate a matrix or list of qualified EMIS vendors.	
	2019	Distribute list of qualified EMIS vendors.	
	2019	Initiate development and dissemination of EMIS case studies, webinars, and knowledge transfer sessions in a variety of media/forums.	
	2021	Refine and continue the dissemination of EMIS case studies, webinars, and knowledge transfer sessions in a variety of media/forums.	

## 4 Innovation and Research Initiative Specific Results

Table 70. Innovation and Research Initiative Budgets and Spending<sup>128, 129</sup>

Initiative	Budget Approved as of June 30, 2017 <sup>a</sup>	Expended Funds <sup>b</sup>	Open Encumbrances <sup>c</sup>	Contract Pre-Encumbrances <sup>d</sup>	Committed Funds <sup>e</sup>	% of Approved Budget Committed <sup>f</sup>	Budget Approved Remaining Balance <sup>g</sup>
<b>Market Characterization &amp; Design Chapter</b>	<b>\$250,000</b>	-	-	-	-	-	<b>\$250,000</b>
<b>Grid Modernization Chapter</b>							
DER Interconnection	\$6,300,000	\$534,331	\$1,229,799	\$773,978	\$2,538,108	40%	\$3,761,892
High Performing Grid	\$110,500,000	-	\$255,015	\$7,231,365	\$7,486,380	7%	\$103,013,620
<b>Grid Modernization Chapter Total</b>	<b>\$116,800,000</b>	<b>\$534,331</b>	<b>\$1,484,814</b>	<b>\$8,005,343</b>	<b>\$10,024,488</b>	<b>9%</b>	<b>\$106,775,512</b>
<b>Innovation Capacity and Business Development Chapter</b>							
CleanTech Startup Growth	\$19,000,000	-	\$1,500,000	\$6,800,000	\$8,300,000	44%	\$10,700,000
Manufacturing Corps	\$12,000,000	-	-	-	-	-	\$12,000,000
<b>Innovation Capacity and Business Development Chapter</b>	<b>\$31,000,000</b>	-	<b>\$1,500,000</b>	<b>\$6,800,000</b>	<b>\$8,300,000</b>	<b>27%</b>	<b>\$22,700,000</b>
<b>Building Innovation Chapter</b>							
NextGen HVAC	\$15,000,000	\$12,500	\$95,589	\$116,499	\$224,588	1.5%	\$14,775,412
<b>Building Innovation Chapter Total</b>	<b>\$15,000,000</b>	<b>\$12,500</b>	<b>\$95,589</b>	<b>\$116,499</b>	<b>\$224,588</b>	<b>1.5%</b>	<b>\$14,775,412</b>
<b>Clean Transportation Chapter</b>							
Electric Vehicles	\$11,850,000	\$99,000	-	\$150,000	\$249,000	2%	\$11,601,000
<b>Clean Transportation Chapter Total</b>	<b>\$11,850,000</b>	<b>\$99,000</b>	-	<b>\$150,000</b>	<b>\$249,000</b>	<b>2%</b>	<b>\$11,601,000</b>
<b>Energy-Related Environmental Research Chapter</b>							
Environmental Research	\$30,000,000	\$3,000	-	\$218,273	\$221,273	1%	\$29,778,727
<b>Energy-Related Environmental Research Chapter Total</b>	<b>\$30,000,000</b>	<b>\$3,000</b>	-	<b>\$218,273</b>	<b>\$221,273</b>	<b>1%</b>	<b>\$29,778,727</b>
<b>Renewables Optimization Chapter</b>							
Energy Storage Innovations	\$33,000,000	-	-	-	-	-	\$33,000,000
<b>Renewables Optimization Chapter Total</b>	<b>\$33,000,000</b>	-	-	-	-	-	<b>\$33,000,000</b>
<b>NYS Cost Recovery Fee</b>	<b>\$6,062,208</b>	<b>\$14,234</b>	-	-	<b>\$14,234</b>	<b>0.2%</b>	<b>\$6,047,974</b>
<b>Innovation Capacity and Bus. Dev. Chapter Total</b>	<b>\$243,962,208</b>	<b>\$663,065</b>	<b>\$3,080,403</b>	<b>\$15,290,115</b>	<b>\$19,033,583</b>	<b>8%</b>	<b>\$224,928,625</b>

<sup>128</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>129</sup> NYSERDA has committed an additional \$9,760,827 to solicitations with upcoming due dates not included in the table above. When including these funds, NYSERDA has committed 12% of the approved budget to date for the Innovation and Research Chapter. Committed benefits presented in this report do not include benefits associated with awards made as a result of these solicitations.

*Table notes are on the next page.*

- a Funds approved by DPS as of June 30, 2017.
- b Invoices processed for payment by NYSERDA.
- c Remaining funding obligated under a contract, purchase order or incentive award.
- d Planned funding for contracts awarded and under negotiation.
- e Sum of Expended Funds, Open Encumbrances, and Contract Pre-Encumbrances.
- f Percentage of the budget that has been committed.
- g Difference between Budget Approved Funds and Committed Funds.

**Table 71. Distributed Energy Resource Interconnection Initiative Results** <sup>130, 131</sup>

**Approval Date:** May 23, 2016

**Launch Date:** October 20, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	\$3.63	\$3.63	\$4.59	79%	\$5.83	62%
Participants	Participants	-	-	-	11	11	6	183%	13	85%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>130</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>131</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 72. Key Milestones for Distributed Energy Resource Interconnection**

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	Q3 2016	Contract with a consultant to conduct a comprehensive analysis of technology gaps and create a road map for advancement of the technology and tools necessary to support an advanced, integrated, high-performing grid in New York.	Consulting contract is in place.
✓	Q3 2016	Contract with one or more research/consulting organizations to provide technical knowledge and support for DER interconnection improvements in New York.	Contracts in place with three research/consulting organizations.
✓	Q3 2016	Launch a competitive program funding opportunity focused on innovation to reduce DER interconnection burdens in New York State.	Competitive funding program launched in October 2016 and closed on November 28, 2016.
✓	Q3 2016	Implement a model for collaboration between NYSERDA, NYPA, DPS, NY utilities, and grid tech companies to ensure the grid modernization road mapping work is compatible with and complimentary to the development of DSIPs consistent with PSC rules.	Collaboration model framework established and launched in Q4 2016.
✓	Q1 2017	Contract with awardees selected under the funding opportunity focused on innovation to reduce DER interconnection burdens in New York State.	Contracts have been negotiated and sent to contractors for signatures. Most contracts have been signed and returned; a small number are pending signature by the contractor.
	Q2 2017	Grid Modernization Roadmap complete.	Roadmap is in progress and project scope being expanded to include additional stakeholder input.

**Table 73. High-Performing Grid Initiative Results** <sup>132, 133</sup>

**Approval Date:** May 23, 2016

**Launch Date:** September 16, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2022)	% of Total Target through Initiative Completion (2022)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	\$22.47	\$22.47	\$39.50	57%	\$309.00	7%
Participants	Participants	-	-	-	27	27	11	245%	64	42%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>132</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>133</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 74. Key Milestones for High-Performing Grid**

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Issue broad competitive solicitation #1, guided by utility Distributed System Implementation Plan (DSIP) baseline filings and completed stakeholder market research (e.g., demonstrations, product development, engineering analyses and studies) in technology, tools, and methods aimed at dynamic management of the electric grid.	Program Opportunity Notice 3397 was released in October 2016, with an initial proposal due date of January 11, 2017. NYSERDA has contracted 11 proposals.
✓	2017	Enter into contracts for projects awarded under the broad competitive solicitation #1.	NYSERDA has contracts with the 11 proposals selected for award under round 1 of PON 3397. Round 2 of PON 3397 closed with 43 proposals received on June 28, 2017.
	2017	Identify near-term opportunities for applied research that are aligned with utility supplemental DSIPs and the NY Grid Modernization Roadmap.	Roadmap completed. Evaluating information for targeted solicitation.
	2017	Issue targeted competitive solicitation #2, guided by utility supplemental DSIPs and the NY Grid Modernization Roadmap.	
	2017	Enter into contracts for projects awarded under the targeted competitive solicitation #2.	
	2018	Identify technology gaps necessary to support community grid operation based on completed NY Prize Stage 2 evaluations.	
	2018	Issue broad competitive solicitation #3.	
	2018	Enter into contracts for projects awarded under the broad competitive solicitation #3.	
	2018	Issue targeted competitive solicitation #4.	
	2019	Enter into contracts for projects awarded under the targeted competitive solicitation #4.	
	2019	Issue broad competitive solicitation #5.	
	2019	Enter into contracts for projects awarded under the broad competitive solicitation #5.	
	2020	Issue targeted competitive solicitation #6.	
	2020	Enter into contracts for projects awarded under the targeted competitive solicitation #6.	
	2020	Issue broad competitive solicitation #7.	
	2021	Enter into contracts for projects awarded under the broad competitive solicitation #7.	

**Table 74 continued**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2021	Issue targeted competitive solicitation #8.	
	2021	Enter into contracts for projects awarded under the targeted competitive solicitation #8.	
	2021	Issue broad competitive solicitation #9.	
	2022	Enter into contracts for projects awarded under the broad competitive solicitation #9.	

**Table 75. Cleantech Start-up Growth Initiative Results**<sup>134, 135</sup>

**Approval Date:** May 23, 2016

**Launch Date:** October 12, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	-	-	*	-	*	-
	Lifetime Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	-	-	*	-	*	-
	Lifetime Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Dollars	-	-	-	\$124.50	\$124.50	\$116.00	107%	\$225.00	55%
Participants	Participants	-	-	-	-	-	78	-	191	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>134</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>135</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 76. Key Milestones for Cleantech Start-up Growth Incubators**

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	First competitive solicitation launched.	Solicitation released in October 2016 with due dates in December 2016 and October 2017. Scoring committee for first due date held in January 2017.
	2017	Awards from first solicitation are contracted.	Four incubator contracts are either fully executed or in the process of being finalized. The last of these four incubator contracts is expected to be fully executed and in place by the end of August 2017.
✓	2017	Second competitive solicitation launched.	Announced as part of the first round.
	Starting 2017	Networking event held.	The four incubator contracts all have a start dates of July 1, 2017. Networking events are expected to be held in the second half of 2017 as work commences on these projects.
	Starting 2017	Entrepreneur boot camp held.	The four incubator contracts all have a start dates of July 1, 2017. Entrepreneur boot camps are expected to be held in the second half of 2017 as work commences on these projects.
	2018	Awards from second solicitation are contracted.	

**Table 77. Key Milestones for Cleantech Start-up Growth Ignition Grants**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2017	Formal Voice of Customer exercise is completed.	Customer Discovery/Market Validation exercise is still ongoing and in the final stages.
	2017	Solicitation launched.	Solicitation is currently under development. Expected release date is late summer or early fall 2017.
	2017	Establish investment committee.	
	Starting 2017	Investment committee meetings held.	
	Starting 2017	Launch ignition grants solicitation and issue awards on ongoing basis.	Solicitation is currently under development. Expected release date is late summer or early fall 2017.

**Table 78. Key Milestones for Cleantech Start-up Growth Geographic Coverage**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
✓	2016	Competitive solicitation launched.	Solicitation released in October 2016 with due dates in December 2016 and October 2017.
	2017	Awards from solicitation are contracted (~6 months following solicitation due date).	One incubator contract is currently still in negotiation and should be in place by the end of August.
	2017	Inventory of entrepreneurial assets in Southern Tier is completed.	
	2017	Establish entrepreneurship training programs.	
✓	Starting 2017	Networking events held.	Ongoing networking events have already been held and more are planned for future dates.

**Table 79. NextGen HVAC Initiative Results** <sup>136, 137</sup>

**Approval Date:** August 17, 2016

**Launch Date:** June 28, 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	-	-	\$10.00	-	\$75.00	-
Participants	Participants	-	-	-	-	-	3	-	25	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>136</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>137</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 80. Key Milestones for NextGen HVAC**

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	Issue RFI to evaluate and establish technology challenge areas and targets.	RFI issued January 13, 2017. Informational webinar held on February 1, 2107 with approximately 60 attendees. Thirty-two individual responses received on February 22, 2017.
✓	2016	Issue first technology challenge.	First NextGen HVAC Technology Challenge was issued on June 28, 2017 with the release of the solicitation PON 3519.
	2017	Contract projects from first yechnology challenge.	Projects from first challenge to be selected and awarded in Q4 2017.
	2017	Review portfolio of activities, solicit market input, and reassess technology challenges areas and targets.	
	2017	Issue second technology challenge.	
	2018	Contract projects from second technology challenge.	
	2018	Review portfolio of activities, benefits to date, solicit market input and reassess technology challenges areas and targets.	
	2018	Issue third technology challenge.	
	2019	Contract projects from third technology challenge.	

**Table 81. Electric Vehicles Innovation Initiative Results** <sup>138, 139</sup>

**Approval Date:** August 17, 2016

**Anticipated Launch Date:** Q3 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	-	-	\$3.70	-	\$31.70	-
Participants	Participants	-	-	-	-	-	6	-	33	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>138</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>139</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 82. Key Milestones for Electric Vehicles Innovation**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Support the launch of new business offerings for charging station leasing.	Initial development underway.
	2017	Issue first competitive solicitation for the development and demonstration of EV-enabling technologies.	Initial development underway.
	2017	Contract with projects awarded in first competitive solicitation for the development and demonstration of EV-enabling technologies.	
	2017	Initiate aggregation pilots for EVs and EV charging stations, which will begin engaging customers and facilitating initial bulk purchases.	Initial development underway.
	2018	Complete bench-scale prototypes of economically viable technologies that enable smart charging.	
	2018	Issue second competitive solicitation for the development and demonstration of EV-enabling technologies.	
	2018	Contract with projects awarded in second competitive solicitation for the development and demonstration of EV-enabling technologies.	
	2018	Contract with projects awarded in third competitive solicitation for the development and demonstration of EV-enabling technologies.	
	2018	Fast-charging station network expanded to 30 locations statewide along major interstate corridors.	
	2018	Completion of first collaborative consumer awareness activities.	Consumer awareness activities underway.
	2019	Issue third competitive solicitation for the development and demonstration of EV-enabling technologies.	

**Table 83. Manufacturing Corps**<sup>140, 141</sup>

**Approval Date:** February 14, 2017

**Launch Date:** June 29, 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	-	-	\$10.00	-	\$60.00	-
Participants	Participants	-	-	-	-	-	50	-	450	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>140</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>141</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 84. Key Milestones for Manufacturing Corps**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2017	RFQ launched to identify manufacturing experts.	In development and expect to launch Q4 2017.
✓	2017	Competitive solicitation launched for pilot sites.	Solicitation launched June 29, 2017.
	2017	Awards from RFQ are contracted.	
	2017	Awards from pilot-site solicitation are contracted. Pilot program launched.	
	2018	Pilot program ends. Metrics reviewed based on pilot program performance and adjustments identified to implement in statewide solicitation.	
	2019	Statewide competitive solicitation based on pilot program launched.	
	2019	Awards from statewide solicitation are contracted. Statewide program launched.	
	2021	NYSERDA investment in statewide program ends. Metrics reviewed based on statewide program performance.	

**Table 85. Energy Related Environmental Research** <sup>142, 143</sup>

**Approval Date:** February 14, 2017

**Launch Date:** February 15, 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	\$0.06	\$0.06	\$1.33	5%	\$7.50	1%
Participants	Participants	-	1	1	3	4	18	22%	100	4%

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>142</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>143</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 86. Key Milestones for Energy Related Environmental Research**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Solicitations issued for research projects consistent with the research plan.	Solicitation planned for Q3 2017.
	2017	Projects contracted from solicitations.	
	2017	Outreach, technology transfer, and briefings to share research findings.	Project is ongoing.
	2018	Solicitations issued for research projects consistent with the research plan.	
	2018	Projects contracted from solicitations.	
	2018	Outreach, technology transfer, and briefings to share research findings.	
	2019	Solicitations issued for research projects consistent with the research plan.	
	2019	Projects contracted from solicitations.	
	2019	Outreach, technology transfer, and briefings to share research findings.	
	2020	Solicitations issued for research projects consistent with the research plan.	
	2020	Projects contracted from solicitations.	
	2020	Outreach, technology transfer, and briefings to share research findings.	
	2021	Solicitations issued for research projects consistent with the research plan.	
	2021	Projects contracted from solicitations.	
	2021	Outreach, technology transfer, and briefings to share research findings.	

**Table 87. Renewables Optimization**<sup>144, 145</sup>

**Approval Date:** March 27, 2017

**Launch Date:** June 21, 2017

Resource Acquisition Transition Initiative	Units	Completed Projects through March 31, 2017 with Adjustments	Completed Projects through 4/1/17-6/30/17	Total Completed Projects through June 30, 2017	Current Pipeline Through June 30, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q2 2017	% of Cumulative Current Target Through Q2 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	-	-	\$4.55	-	\$165.00	-
Participants	Participants	-	-	-	-	-	4	-	118	-

\* Metric to be tracked and reported, though specific target was not ordered.

<sup>144</sup> This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

<sup>145</sup> Cumulative Current Target through Q2 2017 represents 100 percent of the 2016 annual target plus 50 percent of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

**Table 88. Key Milestones for Renewables Optimization**

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Issue first competitive solicitation.	The solicitation was issued June 21, 2017. First round concept papers are due July 20, 2017. Second round concept papers are due December 28, 2017. First round projects are expected to be contracted by October 2017.
	2017	Contract projects from first competitive solicitation.	First round projects are expected to be contracted by October 2017.
	2017	Review portfolio of activities, solicit market input, and reassess technology challenge areas and targets.	
	2017	Issue second competitive solicitation.	
	2018	Contract projects from second competitive solicitation.	
	2018	Review portfolio of activities, solicit market input, and reassess technology challenge areas and targets.	
	2018	Issue third competitive solicitation.	
	2019	Contract projects from third competitive solicitation.	
	2019	Review portfolio of activities, solicit market input, and reassess technology challenge areas and targets.	
	2019	Issue fourth competitive solicitation.	

## Appendix A: Table of Investment Plan Approvals<sup>146</sup>

	Case Number/Reference	Effective Date
Commercial Resource Acquisition Transition and Flextech Industrial Resource Acquisition Transition Agriculture Resource Acquisition Transition Multifamily Market-Rate Resource Acquisition Transition Multifamily LMI Resource Acquisition Transition Single-Family Market-Rate Resource Acquisition Transition Single-Family LMI Resource Acquisition Transition Commercial New Construction Resource Acquisition Transition Low-Rise New Construction Market-Rate Resource Acquisition Transition Low-Rise New Construction LMI Resource Acquisition Transition Multifamily New Construction Market-Rate Resource Acquisition Transition Multifamily New Construction LMI Resource Acquisition Transition Anaerobic Digesters Resource Acquisition Transition Fuel Cells Resource Acquisition Transition Small Wind Resource Acquisition Transition Solar Thermal Resource Acquisition Transition Combined Heat and Power Resource Acquisition Transition	Case 14-M-0094 - <i>Resource Acquisition Approval Letter</i>	February 29, 2016

<sup>146</sup> This report contains only the progress of initiatives approved as of June 30, 2017.

**Table A-1 continued**

<p>Real Estate Tenant  Real-Time Energy Management  Reforming the Energy Vision Campus Challenge  Continuous Energy Improvement  Clean Energy Communities  Offshore Wind Master Plan  Offshore Wind Pre-Development Activities  REV Connect  Distributed Energy Resource Interconnection  Cleantech Start-up Growth</p>	<p>Case 14-M-0094 - DPS Approval of NYSERDA's CEF Investment Plan Chapters</p>	<p>May 23, 2016</p>
<p>High-Performing Grid  Reducing Barriers to Energy Storage Deployment  Electric Vehicles Rebate  NextGen HVAC  Electric Vehicle Innovation</p>	<p>Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters</p>	<p>August 17, 2016</p>
<p>Retrofit NY  REVitalize  Low-Income Forum on Energy  Healthy Homes Feasibility Study</p>	<p>Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters</p>	<p>August 31, 2016</p>
<p>Greenhouse Lighting and Systems Engineering  Industry Partnerships</p>	<p>Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters</p>	<p>September 15, 2017</p>
<p>Manufacturing Corps  Energy Related Environmental Research</p>	<p>Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters</p>	<p>February 13, 2017</p>
<p>Community Energy Engagement  Energy Storage Technology and Product Development</p>	<p>Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters</p>	<p>March 27, 2017</p>
<p>Underutilized Products Support  Renewable Heat NY  Heat Pumps and Solar Thermal</p>	<p>Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters</p>	<p>May 16, 2017</p>
<p>Energy Efficiency Soft Cost Challenge  Power Electronics Manufacturing Consortium</p>	<p>Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters</p>	<p>July 19, 2017</p>

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