



NYSERDA

Clean Energy Fund Quarterly Performance Report Through March 31, 2017

Final Report

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 March 31, 2017

Final Report

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1 Overview

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% 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, 2016.¹ 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.

¹ 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 December 31, 2016, 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, which was approved by the New York State Department of Public Service (DPS) on February 29, 2016.² Several initiatives in the Market Development and Innovation and Research Chapters were approved by DPS on May 23, 2016,³ August 17, 2016,⁴ August 31, 2016,⁵ September 15, 2016⁶, February 14, 2016⁷ and March 27, 2017⁸ as well.

As of March 31, 2017, the Clean Energy Fund's Transitional Programs have been in operation for 13 months (approved as of February 29, 2016) and the first wave of new initiatives for ten months (approved as of May 23, 2016). The most recent approvals came only four months prior to quarter end. The progress of all of these initiatives are represented throughout this report, and the following table gives insight into each initiative's status beyond what the reported numbers convey during this ramp-up period. In most cases, launched initiatives are achieving the progress anticipated, and where they are not, NYSERDA has made programmatic adjustments to accelerate progress. Notable exceptions to forecast are the Commercial Resource Acquisition Transition initiative, which has been changed and reintroduced to the market, and the Multifamily Resource Acquisition Transition initiatives, which are being revamped.

² Case 14-M-0094 – *Resource Acquisition Approval Letter*. Issued and effective February 29, 2016

³ Case 14-M-0094 – DPS Approval of NYSERDA's CEF Investment Plan Chapters. Issued and effective May 23, 2016.

⁴ Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters. Issued and effective August 17, 2016.

⁵ Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters. Issued and effective August 31, 2016.

⁶ Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters. Issued and effective September 15, 2016.

⁷ Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters. Issued and effective February 14, 2017.

⁸ Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters. Issued and effective March 27, 2017.

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

Initiative	Key Insights, Progress, and Adjustments under Consideration
Resource Acquisition Transition	
<p>Table 7: Commercial Resource Acquisition Transition and FlexTech</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016</p>	<ul style="list-style-type: none"> Commercial Implementation Assistance, a program designed to complement utility programs in buying down costs of energy efficiency measures, was closed April 30, 2017. Applicants are successfully utilizing utility program offers. NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets. 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 EEPs rules, are reincorporating the program into their business development cycle. Overall attainment of targets is forecasted to lag initial projections by three calendar quarters.
<p>Table 8: Industrial Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2106</p>	<ul style="list-style-type: none"> The program is achieving most targets according to plan but is slightly behind on MWh target progress. NYSERDA is in the process of modifying the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets.
<p>Table 9: Agriculture Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016</p>	<ul style="list-style-type: none"> The program is lagging MWh target progress however NYSERDA is in the process of modifying the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets. The program is lagging MMBtu target progress given softer return on investment for gas projects due to gas pricing and customer mix (more farms and fewer greenhouses); NYSERDA is targeting farm sectors (greenhouses, dairy) that use fossil fuels in their process.
<p>Table 10: Multifamily Market Rate Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: May 19, 2016</p>	<ul style="list-style-type: none"> The program, as initially launched, had not yielded projects by the end of this reporting period. NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.
<p>Table 11: Single Family Market Rate Resource Acquisition</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016</p>	<ul style="list-style-type: none"> The program is achieving progress against targets at a slower pace than planned. NYSERDA is undertaking stakeholder outreach to better understand the market's response to the offerings and is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.

Table 1 continued

Initiative	Key Insights, Progress, and Adjustments under Consideration
Resource Acquisition Transition	
<p>Table 12: Low to Moderate Income Single Family Low-Income Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016</p>	<ul style="list-style-type: none"> The program is achieving most targets according to plan but is slightly behind on MWh target progress. NYSERDA will target additional electric reduction opportunities in 2017 and is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.
<p>Table 13: Low to Moderate Income Single Family Moderate-Income Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016</p>	<ul style="list-style-type: none"> The program is achieving targets at a faster pace than planned.
<p>Table 14: Low- to Moderate-Income Multifamily Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: May 19, 2016</p>	<ul style="list-style-type: none"> The program is currently being redesigned for simplicity and market appeal. NYSERDA has worked extensively with key market participants to address these issues, and is in the process of modifying the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets.
<p>Table 15: Commercial New Construction Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016</p>	<ul style="list-style-type: none"> The program performing well and is achieving targets at a faster pace than planned NYSERDA is in the process of modifying the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets.
<p>Table 16: Low Rise New Construction Market Rate Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016</p>	<ul style="list-style-type: none"> The program is performing well, having exceeded the cumulative current energy efficiency and emissions targets, and being close to achieving the customer bill saving and participant targets. NYSERDA is in the process of modifying the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets.

Table 1 continued

Initiative	Key Insights, Progress, and Adjustments under Consideration
Resource Acquisition Transition	
<p>Table 17: Low Rise New Construction Low- to Moderate-Income Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016</p>	<ul style="list-style-type: none"> The program is not achieving targets per plan as participation has been lower than expected. This is due to a surge of activity into the EEPS 2 funded version of the program prior to the launch of the CEF, caused by general market uncertainty and the expectation of reduced incentives under the CEF version of the program. NYSERDA is in the process of modifying the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets.
<p>Table 18: Multifamily New Construction Market Rate Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: August 8, 2016</p>	<ul style="list-style-type: none"> The program is not yet achieving targets per plan. Program participation in 2017 is expected to increase based on the reauthorization of the New York City Property Tax abatement and NYSERDA is in the process of modifying the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets.
<p>Table 19: Multifamily New Construction Low- to Moderate-Income Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: August 8, 2016</p>	<ul style="list-style-type: none"> The program is not yet achieving targets per plan. Program participation in 2017 is expected to increase based on the reauthorization of the New York City Property Tax abatement. NYSERDA is in the process of modifying the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets.
<p>Table 20: Anaerobic Digesters Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: July 8, 2016</p>	<ul style="list-style-type: none"> The program is achieving 60% of energy targets and is exceeding bill savings and private investment targets. 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. \$4 million was committed in 2016, representing 2 projects and 1.13 MW. NYSERDA will pivot 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 at reduced incentives from the ratepayers.
<p>Table 21: Fuel Cells Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: TBD</p>	<ul style="list-style-type: none"> Given market feedback on market potential, NYSERDA is no longer proceeding with the transition program filed in February 2016. NYSERDA is working with stakeholders to identify higher impact strategies to reduce soft costs for fuel cell development, for launch in 2017. A revised Investment Plan will be submitted.

Table 1 continued

Initiative	Key Insights, Progress, and Adjustments under Consideration
Resource Acquisition Transition	
<p>Table 22: Small Wind Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016</p>	<ul style="list-style-type: none"> The program is not achieving targets according to plan due to smaller sized projects and fewer developers than anticipated.
<p>Table 23: Solar Thermal Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016 Launch Date: March 1, 2016</p>	<ul style="list-style-type: none"> In the current period, NYSERDA cancelled 93 projects in the pipeline due to non-performance of one contractor and is not expected to achieve program targets. These funds have not been repurposed within the program and NYSERDA is re-evaluating the current Solar Thermal strategy and exploring opportunities in target market segments. NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.
<p>Table 24: 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"> 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, 50 MW of CHP commitments have been approved through December 31, 2016, of which 19.8 MW are associated with IPEC/DMP funds and 30 MW with the CEF.⁹
Market Development	
<p>Tables 26-27: Real Estate Tenant</p> <p>Approval Date: May 23, 2016 Launch Date: July 19, 2016</p>	<ul style="list-style-type: none"> The initiative is on track to achieve implementation milestones. The program is lagging progress against current targets, however, NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.

⁹ 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 1/1/17 and end of Q1 of 2017, an additional net of 4 MW of commitments with CEF funds occurred, and minor attrition of IPEC/DMP commitments occurred, thus bringing the Q1 of 2017 total to 54 MW consisting of 19.7 MW associated with IPEC/DMP and 34 MW with CEF).

Table 1 continued

Initiative	Key Insights, Progress, and Adjustments under Consideration
Market Development	
<p>Table 28-29: Real Time Energy Management (RTEM)</p> <p>Approval Date: May 23, 2016 Launch Date: June 20, 2016</p>	<ul style="list-style-type: none"> • Development of a technical guidance document and training for operators originally planned for 2016 is being postponed to 2018 based on market feedback. After consulting with market providers, customers, and industry experts, it is recommended that these milestones be postponed until project level data has been obtained. • All other milestones are on track. • Participation by service providers and pipeline of potential projects is robust and proceeding according to plan. • Incentives and building size eligibility were adjusted based on market feedback. • The program is lagging progress against current targets, however, NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.
<p>Tables 30-31: Reforming the Energy Vision (REV) Campus Challenge</p> <p>Approval Date: May 23, 2016 Launch Date: December 21, 2016</p>	<ul style="list-style-type: none"> • The Program is on track to achieve milestones. • The Program reached more than 50% of its 2025 participant target. • NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.
<p>Tables 32-33: Continuous Energy Improvement On-Site Energy Manger</p> <p>Approval Date: May 23, 2016 Launch Date: September 12, 2016</p>	<ul style="list-style-type: none"> • On track to achieve implementation milestones. • Seven applications received for the first pilot. • Achievements to date represent a lag in benefits from original projections due to timing of launch (launched September 2016). It has taken longer than anticipated for customers to seek internal commitment and approval. • The program is lagging progress against current targets, however, NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.
<p>Tables 34-35: Continuous Energy Improvement Strategic Energy Management</p> <p>Approval Date: May 23, 2016 Launch Date: November 22, 2016</p>	<ul style="list-style-type: none"> • Program launched in late November 2016. • Marketing and outreach of program continues with key Industrial managers/C-suite executives. • The program is lagging progress against current targets, however, NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.

Table 1 continued

Initiative	Key Insights, Progress, and Adjustments under Consideration
Market Development	
<p>Tables 36-37: Clean Energy Communities Initiative</p> <p>Approval Date: May 23, 2016 Launch Date: August 3, 2016</p>	<ul style="list-style-type: none"> • On track to achieve implementation milestones. • Since launch in August 2016, there has been strong interest among communities including 316 High Impact Actions from 135 communities, 28 of which have been formally designated Clean Energy Communities. • While the program is generally on track, reported results represent a lag in expected energy benefits from original projections due to timing of launch (launched August 2016). Program has a robust pipeline in the Regional Greenhouse Gas Initiative (RGGI) quarterly reports and will see increased results once there is more committed CEF grant funding to designated Clean Energy Communities. • The program is lagging progress against current targets, however, NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.
<p>Tables 38-39: Off-Shore Wind Master Plan</p> <p>Approval Date: May 23, 2016 Launch Date: September 15, 2016</p>	<ul style="list-style-type: none"> • On track to achieve milestones. • Blueprint completed and published. Stakeholder engagement commenced.
<p>Tables 40-41: Off-Shore Wind Pre-Development</p> <p>Approval Date: May 23, 2016 Launch Date: December 12, 2016</p>	<ul style="list-style-type: none"> • On track to achieve milestones. • Planning underway for procurements and deploying wind resource measurement systems, site-specific environmental and sea floor studies.
<p>Tables 42-43: REV Connect</p> <p>Approval Date: May 23, 2016 Launch Date: August 9, 2016</p>	<ul style="list-style-type: none"> • Achievement of stated Q3 and Q4 2016 milestones is projected by Q2 2017, with the launch of the initial REV Connect platform. • Expected to launch the initial REV Connect platform to allow submission of project ideas, as well as the project evaluation process, in Q2 2017. • Contractor selected, information resources under revision, and initial market research completed. • NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.
<p>Tables 44-45: Reducing Barriers to Energy Storage Deployment</p> <p>Approval Date: August 17, 2016 Launch Date: November 7, 2016</p>	<ul style="list-style-type: none"> • On track to achieve overall milestones. • 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. • Value stacking pilots solicitation awaiting release in April 2017. • NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.

Table 1 continued

Initiative	Key Insights, Progress, and Adjustments under Consideration
Innovation and Research	
<p>Tables 46-47: Electric Vehicles Rebate</p> <p>Approval Date: August 17, 2016 Launch Date: March 21, 2017</p>	<ul style="list-style-type: none"> • Rebate program launched March 21, 2017 • Due to the delayed launch of the program, it is not expected that current targets will be achieved in the timeframe presented, however, NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.
<p>Tables 48-49: 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"> • On track to achieve milestones. • Contracts with Consortium were finalized in February 2017. • The Scientific Advisory Board candidates have been chosen.
<p>Tables 50-51: RetrofitNY</p> <p>Approval Date: August 31, 2016 Launch Date: March 1, 2017</p>	<ul style="list-style-type: none"> • On track to achieve milestones. • NYSERDA is in the process of modifying the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets.
<p>Tables 52-53: REVitalize</p> <p>Approval Date: August 31, 2016 Anticipated Launch Date: Q2 2017</p>	<ul style="list-style-type: none"> • Due to a delayed launch of the program NYSERDA is in the process of modifying the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets. • Ongoing pre-launch and planning activities proceeding. • Solicitation is under development and will be issued in Q2 2017.
<p>Tables 54-55: Low-Income Forum on Energy</p> <p>Approval Date: August 31, 2016 Launch Date: August 31, 2017</p>	<ul style="list-style-type: none"> • Pre-launch and planning activities currently ongoing. • Solicitation for program support launch March 23. • The program is lagging progress against the current participant target, however, NYSERDA is in the process of modifying the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets.
<p>Table 56: Healthy Homes Feasibility Study</p> <p>Approval Date: August 31, 2016 Launch Date: January 20, 2017</p>	<ul style="list-style-type: none"> • Pre-launch and planning activities proceeding currently ongoing. • The feasibility study is under contract and work is underway, with an anticipated completion in Q2 2017. • Pending completion of the feasibility study, the pilot design phase is anticipated during Q2 of 2017.

Table 1 continued

Initiative	Key Insights, Progress, and Adjustments under Consideration Innovation and Research
<p>Table 57-58: Industry Partnerships</p> <p>Approval Date: September 15, 2016 Launch Date: January 13, 2017</p>	<ul style="list-style-type: none"> • On track to achieve implementation milestones. • PON 3442 was issued on January 13, 2017. • Contracts under PON 3442 will be negotiated during Q2 of 2017. • NYSERDA is in the process of modifying the investment plan with DPS in order to better align the timing of committed budgets and benefits with targets.
<p>Tables 59-60: Community Energy Engagement</p> <p>Approval Date: March 3, 2017 Anticipated Launch Date: Q2 2017</p>	<ul style="list-style-type: none"> • RFP is expected to be released Q2 2017.
<p>Tables 62-63: Distributed Energy Resource Interconnection</p> <p>Approval Date: May 23, 2016 Launch Date: October 20, 2016</p>	<ul style="list-style-type: none"> • On track to achieve milestones. • Contracted with Electric Power Research Institute (EPRI) to analyze technology gaps and create a roadmap. • Mobilized several research/technology consulting firms to provide technical support for DER interconnection improvements in NYS. • Launched a competitive program funding opportunity focused on innovation to reduce DER interconnection burdens in NYS (October 2016). • 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.
<p>Tables 64-65: High Performing Grid Modernization</p> <p>Approval Date: May 23, 2016 Launch Date: September 16, 2016</p>	<ul style="list-style-type: none"> • On track to achieve milestones. • 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). • NYSERDA is in the process of modifying the investment plan with DPS in order to revise program targets and better align the timing of committed budgets and benefits with targets.
<p>Tables 66-69: Cleantech Startup Growth</p> <p>Approval Date: May 23, 2016 Launch Date: October 12, 2016</p>	<ul style="list-style-type: none"> • On track to achieve milestones. • Strong response from the competitive program funding opportunity for cleantech incubators. Contract negotiations with the selected projects will begin Q1 2017. Due date for the second round of proposals is scheduled for Q4 2017. • NYSERDA is in the process of modifying the investment plan with DPS in order add additional strategy components to the program.

Table 1 continued

Initiative	Key Insights, Progress, and Adjustments under Consideration
Innovation and Research	
Tables 70-71: NextGen HVAC Approval Date: August 17, 2016 Anticipated Launch Date: May 2017	<ul style="list-style-type: none"> • 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 formula a series of HVAC technology challenges. • First NextGen HVAC Technology Challenge solicitation (PON 3519) developed and scheduled for release in May 2017.
Tables 72-73: Electric Vehicle Innovation Approval Date: August 17, 2016 Anticipated Launch Date: Q2 2017	<ul style="list-style-type: none"> • On track to achieve milestones. • Initial development of 2017 offering underway.
Tables 74-75: Manufacturing Corps Approval Date: February 14, 2017 Anticipated Launch Date: Q2 2017	<ul style="list-style-type: none"> • On track to achieve milestones. • Pilot Program solicitation launch expected Q2 – 2017.
Tables 76-77: Energy Related Environmental Research Approval Date: January 26, 2017 Launch Date: January 27, 2017	<ul style="list-style-type: none"> • On track to achieve milestones.
Tables 78-79: Renewables Optimization Approval Date: March 3, 2017 Anticipated Launch Date: May 2017	<ul style="list-style-type: none"> • On track to achieve milestones. • Energy storage technology and product development solicitation launch expected in May 2017.

This report reflects direct benefits from participation in NYSERDA’s programs, as shown in the following tables. Indirect benefits are not reflected in this report 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)^{10, 11, 12, 13, 14,15}

		Cumulative Annual Benefits		Lifetime Benefits	
		Cumulative Progress through March 31, 2017	Minimum Projected Benefits 2016-2025	Cumulative Progress through March 31, 2017	Minimum Projected Benefits 2016-2025
Energy Efficiency	MWh	0.48	10.6	7.40	*
	MMBtu	3.32	13.4	53.96	*
	MW	0.00004	*	0.00004	*
Renewable Energy	MWh	0.01	*	0.15	88
	MW	0.000004	*	0.000004	*
CO2 Emission Reductions (metric tons)		0.44	*	6.89	133
Customer Bill Savings (\$ million)		\$75.82	*	\$1,211.79	\$39,131
Private Investment (\$ million)		\$541.90	*	\$541.90	\$29,356

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

¹⁰ The Renewable Energy Minimum Project Benefits Target is based on the estimated benefits of NY-Sun, which are separately reported. As of March 31, 2017, NY Sun has contributed 42,627,000 Lifetime MWh toward this target.

¹¹ The Private Investment, Customer Bill Savings and CO2 Emission Reduction targets includes estimated benefits from NY-Sun and NY Green Bank. This information will be reported on an annual basis.

¹² Bill savings represent savings for participants of NYSERDA programs.

¹³ Cumulative Current Annual Targets for the initial Resource Acquisition Transition Chapter were rounded to the nearest 1,000. NYSERDA will update these to round to three significant figures, consistent with subsequent filings, when that Chapter is next filed.

¹⁴ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report, as it will take time for the benefits to be realized.

¹⁵ Beginning with Q4 2016, NYSERDA 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).

Table 3. Market Development and Innovation & Research Portfolio Level Budgets and Spending¹⁶

Initiative	PSC Ordered Program Budget Funds ^a	Budget Approved as of December 31, 2016 ^b	% of Ordered Budget Funds Approved ^c	Expended Funds ^d	Open Encumbrances ^e	Contract Pre-Encumbrances ^f	Committed Funds ^g	% of Approved Budget Committed ^h	Budget Approved Remaining Balance ⁱ
Market Development									
Program Funds									
NYS Cost Recovery Fee	\$2,386,760,624	\$645,212,322	27%	\$43,669,231	\$38,530,811	\$69,577,601	\$151,777,644	24%	\$493,434,678
Innovation & Research									
Program Funds									
NYS Cost Recovery Fee	\$629,833,404	\$243,967,696	39%	\$471,677	\$284,441	\$10,348,749	\$11,104,867	5%	\$232,862,829
Administration	\$273,601,311	\$79,992,057	29%	\$18,596,530	\$136,182	\$42,715	\$18,775,427	23%	\$61,216,630
Evaluation	\$130,020,000	\$30,728,636	24%	\$242,124	\$1,240,833	\$134,973	\$1,617,930	5%	\$29,110,706
Total	\$3,420,215,339	\$999,900,711	29%	\$62,979,562	\$40,192,267	\$80,104,038	\$183,275,868	18%	\$816,624,843

- a CEF Order authorized CEF funding.
- b Funds approved by DPS as of March 31, 2017.
- c The percentage of the approved budget.
- d Invoices processed for payment by NYSERDA.
- e Remaining funding obligated under a contract, purchase order or incentive award.
- f Planned funding for contracts awarded and under negotiation.
- g The sum of Expended Funds, Open Encumbrances and Contract Pre-Encumbrances.
- h The percentage of the committed budget.
- i The difference between Budget Approved Funds and Committed Funds.

¹⁶ NYSERDA has pre-encumbered an additional \$39.9 million to solicitations with upcoming due dates that are not shown in the above table. When including these funds, NYSERDA has committed 22% 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 and Innovation & Research Portfolio Committed Benefits Progress to Date - Annual^{17, 18, 19, 20}

Initiative	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Annual Target Through Q1 2017	% of Cumulative Annual Target Through Q1 2017	Total Cumulative Annual Target through 2025	% of Total Cumulative Annual Target through 2025
Market Development									
Energy Efficiency (MWh)	7,198	17,670	24,868	453,975	478,843	711,000	67%	1,844,000	26%
Energy Efficiency (MMBtu)	203,027	386,062	589,090	2,731,655	3,320,745	5,370,750	62%	15,030,000	22%
Energy Efficiency (MW)	-	0.1	0.1	44	44	*	-	*	-
Renewable Energy (MWh)	592	2,985	3,577	8,611	12,188	*	-	*	-
Renewable Energy (MW)	0.22	2.5	2.8	1	4	*	-	*	-
CO2e Reductions (metric tons)	15,678	31,238	46,915	390,757	437,673	*	-	*	-
Customer Bill Savings (\$ million)	\$3.58	\$5.22	\$8.80	\$67.03	\$75.82	*	-	*	-
Private Investment (\$ million)	\$28.84	\$20.52	\$49.36	\$488.91	\$538.27	*	-	*	-
Innovation and Research									
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)	-	-	-	\$3.63	\$3.63	*	-	*	-
Total Energy Efficiency (MWh)	7,198	17,670	24,868	453,975	478,843				
Total Energy Efficiency (MMBtu)	203,027	386,062	589,090	2,731,655	3,320,745				
Total Energy Efficiency (MW)	-	0.1	0.1	44	44				
Total Renewable Energy (MWh)	592	2,985	3,577	8,611	12,188				
Total Renewable Energy (MW)	0.22	2.5	2.8	1	4				
Total CO2e Reductions (metric tons)	15,678	31,238	46,915	390,757	437,673				
Total Customer Bill Savings (\$ million)	\$3.58	\$5.22	\$8.80	\$67.03	\$75.82				
Total Private Investment (\$ million)	\$28.84	\$20.52	\$49.36	\$492.54	\$541.90				

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

¹⁷ Targets and benefits include initiatives filed and approved through March 31, 2017.

¹⁸ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report, as it will take time for the benefits to be realized.

¹⁹ Completed projects through December 31, 2016 contains adjustments from programs due to lagged data, QA/QC, and/or updates to emission factors.

²⁰ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 5. Market Development and Innovation & Research Portfolio Committed Benefits Progress to Date - Lifetime^{21, 22, 23, 24}

Initiative	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Lifetime Target Through Q1 2017	% of Cumulative Lifetime Target Through Q1 2017	Total Lifetime Target through 2025	% of Total Lifetime Target through 2025
Market Development									
Energy Efficiency (MWh)	111,200	267,818	379,019	7,017,784	7,396,802	*	-	*	-
Energy Efficiency (MMBtu)	4,966,424	6,531,764	11,498,188	42,456,829	53,955,018	*	-	*	-
Renewable Energy (MWh)	11,310	44,779	56,089	94,253	150,342	*	-	2,524,000	6%
CO2e Reductions (metric tons)	348,464	512,232	860,697	6,032,605	6,893,302	10,756,500	64%	27,870,000	25%
Customer Bill Savings (\$ million)	\$78.56	\$87.68	\$166.24	\$1,045.55	\$1,211.79	\$2,115	57%	\$5,431	22%
Private Investment (\$ million)	\$28.84	\$20.52	\$49.36	\$488.91	\$538.27	\$907	59%	\$4,178	13%
Innovation and Research									
Energy Efficiency (MWh)	-	-	-	-	-	*	-	*	-
Energy Efficiency (MMBtu)	-	-	-	-	-	*	-	*	-
Renewable Energy (MWh)	-	-	-	-	-	*	-	*	-
CO2e Reductions (metric tons)	-	-	-	-	-	*	-	*	-
Customer Bill Savings (\$ million)	-	-	-	-	-	*	-	*	-
Private Investment (\$ million)	-	-	-	\$3.63	\$3.63	\$121.3	3%	\$654.3	0.6%
Total Energy Efficiency (MWh)	111,200	267,818	379,019	7,017,784	7,396,802	-	-	-	-
Total Energy Efficiency (MMBtu)	4,966,424	6,531,764	11,498,188	42,456,829	53,955,018	-	-	-	-
Total Renewable Energy (MWh)	11,310	44,779	56,089	94,253	150,342	-	-	-	-
Total CO2e Reductions (metric tons)	348,464	512,232	860,697	6,032,605	6,893,302	-	-	-	-
Total Customer Bill Savings (\$ million)	\$78.56	\$87.68	\$166.24	\$1,045.55	\$1,211.79	-	-	-	-
Total Private Investment (\$ million)	\$28.84	\$20.52	\$49.36	\$492.54	\$541.90	-	-	-	-

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

²¹ Targets and benefits include initiatives filed and approved through March 31, 2017.

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

²³ Completed projects through December 31, 2016 contains adjustments from programs due to lagged data, QA/QC and/or updates to emission factors.

²⁴ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% 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 Spending²⁵

Initiative	Budget Approved as of December 31, 2016 ^a	Expended Funds ^b	Open Encumbrances ^c	Contract Pre-Encumbrances ^d	Committed Funds ^e	% of Approved Budget Committed ^f	Budget Approved Remaining Balance ^g
Resource Acquisition Transition Chapter							
Commercial	\$37,000,000	\$327,593	\$1,623,548	\$775,309	\$2,726,450	7%	\$34,273,550
Industrial	\$44,100,000	\$1,519,256	\$8,223,106	\$9,833,381	\$19,575,743	44%	\$24,524,257
Agriculture	\$3,600,000	\$900,666	\$929,531	\$26,000	\$1,856,197	52%	\$1,743,803
Multifamily Market Rate	\$5,195,862	\$76,728	\$177,186	\$111,274	\$365,187	7%	\$4,830,675
Single Family Market Rate	\$18,889,680	\$6,004,790	\$358,248	\$2,814,952	\$9,177,991	49%	\$9,711,689
LMI Single Family	\$107,371,400	\$28,749,971	\$1,234,928	\$10,468,661	\$40,453,560	38%	\$66,917,840
LMI Multifamily	\$33,862,500	\$319,734	\$1,229,496	\$926,367	\$2,475,597	7%	\$31,386,903
Commercial New Construction	\$24,683,975	\$282,846	\$909,193	\$16,886,591	\$18,078,630	73%	\$6,605,345
Low Rise New Construction	\$10,836,000	\$675,567	\$2,537,452	\$670,125	\$3,883,144	36%	\$6,952,856
Multifamily New Construction	\$10,155,138	\$245,733	\$3,274,311	\$1,608,549	\$5,128,593	51%	\$5,026,545
Anaerobic Digesters	\$12,150,000	-	\$2,000,000	\$2,100,000	\$4,100,000	34%	\$8,050,000
Fuel Cells	\$6,000,000	-	-	-	-	0%	\$6,000,000
Small Wind	\$6,090,000	\$764,487	\$1,128,071	-	\$1,892,558	31%	\$4,197,442
Solar Thermal	\$3,000,000	\$75,231	\$322,457	\$2,602,312	\$3,000,000	100%	\$0
Combined Heat & Power	\$48,550,000	\$692,218	\$2,871,768	\$12,545,543	\$16,109,529	33%	\$32,440,471
TOTAL	\$371,484,555	\$40,634,820	\$26,819,295	\$61,369,064	\$128,823,179	35%	\$242,661,376

Table notes are on the next page.

²⁵ NYSERDA has committed an additional \$10,011,680 to solicitations with upcoming due dates that are not shown in the above table. When including these funds, NYSERDA committed 37% 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 March 31, 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 The sum of Expended Funds, Open Encumbrances, and Contract Pre-Encumbrances.
- f The percentage of the committed budget.
- g The difference between Budget Approved Funds and Committed Funds.

Table 7. Commercial Resource Acquisition Transition and FlexTech Initiative Results^{26, 27, 28}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	8,679	8,679	87,800	10%	120,800	7%
	MWh Lifetime	-	-	-	143,205	143,205	1,315,000	11%	1,810,000	8%
	MMBtu Annual	-	-	-	70,259	70,259	825,000	9%	1,113,000	6%
	MMBtu Lifetime	-	-	-	1,159,277	1,159,277	14,830,000	8%	20,020,000	6%
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	8,302	8,302	89,975	9%	122,600	7%
	Lifetime Tons	-	-	-	136,978	136,978	1,478,500	9%	2,014,000	7%
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$1.54	\$1.54	\$16.89	9%	\$23.1	7%
	Lifetime Dollars	-	-	-	\$25.45	\$25.45	\$253.25	10%	\$347	7%
Private Investment (millions)	Dollars	-	-	-	\$1.97	\$1.97	\$97.00	2%	\$124	2%
Technical Assistance	Participants	-	-	-	70	70	212	33%	320	22%
Implementation Assistance		-	-	-	-	-	70	-	70	-

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

²⁶ Technical Assistance includes 10 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 24).

²⁷ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

²⁸ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% 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^{29, 30}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	61	5,585	5,646	189,125	194,771	217,125	90%	292,700	67%
	MWh Lifetime	920	83,774	84,694	2,836,875	2,921,570	3,252,000	90%	4,386,000	67%
	MMBtu Annual	-	280,014	280,014	2,347,201	2,627,215	2,100,250	125%	2,857,000	92%
	MMBtu Lifetime	-	4,200,207	4,200,207	35,208,014	39,408,222	31,602,500	125%	42,950,000	92%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	32	17,482	17,514	283,108	300,622	225,975	133%	305,900	98%
Customer Bill Savings (millions)	Lifetime Tons	484	262,223	262,707	4,246,618	4,509,325	3,385,000	133%	4,584,000	98%
	Annual Dollars	\$0.01	\$1.99	\$2.00	\$33.75	\$35.75	\$34.28	104%	\$46.4	77%
Private Investment (millions)	Lifetime Dollars	\$0.11	\$29.82	\$29.94	\$506.25	\$536.19	\$514.50	104%	\$696	77%
	Dollars	\$0.02	\$4.05	\$4.07	\$280.04	\$284.10	\$183.05	155%	\$219	130%
IPE	Participants	1	6	7	77	84	259	32%	285	29%
Technical Assistance		-	-	-	21	21	150	14%	320	7%

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

²⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report, as it will take time for the benefits to be realized.

³⁰ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 9. Agriculture Resource Acquisition Transition Initiative Results^{31, 32, 33, 34}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	1,814	1,047	2,861	2,900	5,761	7,563	76%	12,100	48%
	MWh Lifetime	27,213	15,700	42,914	43,499	86,413	113,500	76%	181,600	48%
	MMBtu Annual	713	948	1,661	613	2,273	25,625	9%	41,000	6%
	MMBtu Lifetime	10,696	14,215	24,911	9,190	34,101	385,000	9%	616,000	6%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	955	551	1,505	1,526	3,031	5,338	57%	8,540	35%
Customer Bill Savings (millions)	Lifetime Tons	14,319	8,261	22,580	22,888	45,468	80,125	57%	128,200	35%
	Annual Dollars	\$0.31	\$0.18	\$0.49	\$0.50	\$1.00	\$1.50	66%	\$2.40	42%
Private Investment (millions)	Lifetime Dollars	\$4.71	\$2.72	\$7.42	\$7.53	15	\$22.5	66%	\$36.0	42%
	Dollars	\$2.73	\$2.00	\$4.73	\$2.37	\$7.10	\$6.79	105%	\$10.9	65%
Participants	Participants	102	74	176	144	320	413	78%	660	48%

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

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- 31 This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.
 - 32 Completed projects through December 31, 2016 contains adjustments due to lagged data, QA/QC, as well as application of a 47% adoption rate, consistent with the filed investment plan. This adoption rate will be evaluated and is subject to change as more data is gathered.
 - 33 Consistent with the filed investment plan, the committed and completed projects savings and private investment are based upon a 47% adoption rate. This adoption rate will be evaluated and is subject to change as more data is gathered.
 - 34 Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% 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^{35, 36}

Approval Date: February 29, 2016

Launch Date: May 19, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	-	-	1,625	-	2,600	-
	MWh Lifetime	-	-	-	-	-	24,375	-	39,000	-
	MMBtu Annual	-	-	-	-	-	183,750	-	309,000	-
	MMBtu Lifetime	-	-	-	-	-	2,755,000	-	4,630,000	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	10,700	-	17,900	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	161,000	-	269,000	-
	Annual Dollars	-	-	-	-	-	\$2.98	-	\$5.00	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	\$44.6	-	\$75.0	-
	Dollars	-	-	-	-	-	\$16.5	-	\$27.0	-
Participants	Participants	-	-	-	-	-	55,000	-	38,000	-

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

³⁵ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

³⁶ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% 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^{37, 38, 39, 40}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	1,088	218	1,306	101	1,407	1,728	81%	2,920	48%
	MWh Lifetime	16,313	3,277	19,589	1,516	21,105	25,875	82%	43,800	48%
	MMBtu Annual	56,651	15,828	72,480	7,533	80,013	127,400	63%	215,900	37%
	MMBtu Lifetime	1,416,287	395,703	1,811,990	188,325	2,000,315	3,185,000	63%	5,390,000	37%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	4,057	1,062	5,119	504	5,623	8,620	65%	14,590	39%
Customer Bill Savings (millions)	Lifetime Tons	95,702	25,399	121,101	12,074	133,175	206,750	64%	350,000	38%
	Annual Dollars	\$1.02	\$0.25	\$1.28	\$0.13	\$1.41	\$2.23	63%	\$3.77	37%
Private Investment (millions)	Lifetime Dollars	\$24.13	\$5.97	\$30.10	\$3.18	\$33.28	\$53.0	63%	\$89.7	37%
	Dollars	\$16.28	\$4.68	\$20.96	\$1.53	\$22.50	\$45.4	50%	\$79.4	28%
Participants	Participants	2,098	631	2,729	296	3,025	5,304	57%	8,976	34%

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

³⁷ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

³⁸ Completed projects through December 31, 2016 contains adjustments due to lagged data and QA/QC.

³⁹ Cumulative Current Target Through Q1 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.

⁴⁰ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 12. Low- to Moderate-Income Single Family Low-Income Resource Acquisition Transition Initiative Results^{41, 42, 43, 44}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	2,617	1,136	3,754	1,531	5,285	5,893	90%	14,450	37%
	MWh Lifetime	39,261	17,046	56,307	22,972	79,278	88,350	90%	216,800	37%
	MMBtu Annual	77,948	34,970	112,918	39,500	152,418	137,500	111%	337,000	45%
	MMBtu Lifetime	1,948,705	874,251	2,822,956	987,499	3,810,454	3,420,000	111%	8,390,000	45%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	5,597	2,538	8,135	2,928	11,063	10,815	102%	26,530	42%
	Lifetime Tons	126,142	57,478	183,620	65,144	248,764	239,750	104%	588,000	42%
Customer Bill Savings (millions)	Annual Dollars	\$1.21	\$0.58	\$1.79	\$0.73	\$2.52	\$2.59	97%	\$6.34	40%
	Lifetime Dollars	\$27.00	\$12.94	\$39.94	\$15.75	\$55.68	\$55.28	101%	\$135.63	41%
Private Investment (millions)	Dollars	-	-	-	-	-	*	-	*	-
Participants	Participants	5,441	1,982	7,423	2,836	10,259	10,536	97%	25,848	40%

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

⁴¹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁴² Completed projects through December 31, 2016 contains adjustments due to lagged data and QA/QC.

⁴³ Cumulative Current Target Through Q1 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.

⁴⁴ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 13. Low- to Moderate-Income Single Family Moderate Income Resource Acquisition Transition Initiative Results^{45, 46, 47, 48}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	972	300	1,272	96	1,368	714	192%	1,624	84%
	MWh Lifetime	14,575	4,504	19,079	1,443	20,522	10,720	191%	24,370	84%
	MMBtu Annual	47,289	17,881	65,170	7,152	72,322	52,800	137%	120,000	60%
	MMBtu Lifetime	1,182,220	447,029	1,629,249	178,810	1,808,059	1,320,000	137%	3,000,000	60%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	3,291	1,199	4,490	485	4,975	3,350	149%	7,620	65%
Customer Bill Savings (millions)	Lifetime Tons	77,162	28,400	105,562	11,622	117,184	79,950	147%	181,800	64%
	Annual Dollars	\$0.68	\$0.24	\$0.92	\$0.13	\$1.05	\$0.75	140%	\$1.70	61%
Private Investment (millions)	Lifetime Dollars	\$15.82	\$5.65	\$21.48	\$3.06	\$24.54	\$17.60	139%	\$40.04	61%
	Dollars	\$7.79	\$3.02	\$10.81	\$2.27	\$13.08	\$8.65	151%	\$19	70%
Participants	Participants	1,544	650	2,194	311	2,505	2,198	114%	4,998	50%

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

⁴⁵ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁴⁶ Completed projects through December 31, 2016 contains adjustments due to lagged data and QA/QC.

⁴⁷ Cumulative Current Target Through Q1 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.

⁴⁸ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 14. Low- to Moderate-Income Multifamily Resource Acquisition Transition Initiative Results^{49, 50}

Approval Date: February 29, 2016

Launch Date: May 19, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	356	356	24,600	1%	61,500	1%
	MWh Lifetime	-	-	-	5,333	5,333	369,000	1%	923,000	1%
	MMBtu Annual	-	-	-	5,455	5,455	561,500	1%	1,380,000	1%
	MMBtu Lifetime	-	-	-	81,827	81,827	8,425,000	1%	20,700,000	1%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	477	477	42,250	1%	104,500	1%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	7,156	7,156	634,250	1%	1,568,000	1%
	Annual Dollars	-	-	-	\$0.07	\$0.07	\$12.10	1%	\$29.9	1%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$1.04	\$1.04	\$181.50	1%	\$449	1%
	Dollars	-	-	-	-	-	\$95.75	-	\$301	-
Participants	Participants	-	-	-	332	332	90,500	0.4%	220,000	0.4%

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

⁴⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁵⁰ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 15. Commercial New Construction Resource Acquisition Transition Initiative Results^{51, 52, 53}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	37,858	37,858	24,850	152%	37,900	100%
	MWh Lifetime	-	-	-	757,153	757,153	496,250	153%	758,000	100%
	MMBtu Annual	-	-	-	47,999	47,999	32,875	146%	50,200	96%
	MMBtu Lifetime	-	-	-	959,975	959,975	656,500	146%	1,003,000	96%
	MW	-	-	-	10	10	5	-	*	-
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	22,471	22,471	14,800	152%	22,600	99%
	Lifetime Tons	-	-	-	449,423	449,423	296,000	152%	452,000	99%
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$6.13	\$6.13	\$4.23	145%	\$6.455	95%
	Lifetime Dollars	-	-	-	\$122.68	\$122.68	\$84.55	145%	\$129	95%
Private Investment (millions)	Dollars	-	-	-	-	-	\$34.70	-	\$106	-
Participants	Participants	-	-	-	48	48	66	73%	100	48%

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

⁵¹ 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%, based on historic program data. Actual attrition will be reflected in the reported values as it occurs.

⁵² This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁵³ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 16. Low Rise New Construction Market Rate Resource Acquisition Transition Initiative Results ^{54, 55}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	644	553	1,197	2,185	3,382	2,878	118%	4,520	75%
	MWh Lifetime	12,874	11,058	23,932	43,701	67,633	57,650	117%	90,500	75%
	MMBtu Annual	20,368	10,808	31,176	10,922	42,098	32,400	130%	47,400	89%
	MMBtu Lifetime	407,366	216,154	623,520	218,436	841,956	647,000	130%	947,000	89%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	1,431	877	2,308	1,730	4,038	3,258	124%	4,930	82%
	Lifetime Tons	28,619	17,533	46,152	34,606	80,759	65,050	124%	98,500	82%
Customer Bill Savings (millions)	Annual Dollars	\$0.26	\$0.18	\$0.44	\$0.45	\$0.89	\$1.08	83%	\$1.6	56%
	Lifetime Dollars	\$5.22	\$3.61	\$8.84	\$8.99	\$17.83	\$21.50	83%	\$32.0	56%
Private Investment (millions)	Dollars	\$1.21	\$0.74	\$1.95	\$2.72	\$4.67	\$3.33	140%	\$4.99	94%
Participants	Participants	233	131	364	424	788	1192	66%	1,790	44%

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

⁵⁴ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁵⁵ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 17. Low Rise New Construction Low- to Moderate-Income Resource Acquisition Transition Initiative Results^{56, 57, 58}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	2	-	2	2,861	2,863	4,713	61%	7,600	38%
	MWh Lifetime	45	-	45	57,214	57,259	94,150	61%	151,900	38%
	MMBtu Annual	58	-	58	27,504	27,562	43,125	64%	66,300	42%
	MMBtu Lifetime	1,152	-	1,152	550,087	551,239	861,500	64%	1,325,000	42%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	4	-	4	2,975	2,979	4,793	62%	7,560	39%
Customer Bill Savings (millions)	Lifetime Tons	85	-	85	59,501	59,586	95,825	62%	151,100	39%
	Annual Dollars	\$0.0006	-	\$0.0006	\$0.74	\$0.74	\$1.25	59%	\$2.0	37%
Private Investment (millions)	Lifetime Dollars	\$0.01	-	\$0.01	\$14.74	\$14.75	\$25.00	59%	\$40.0	37%
	Dollars	\$0.01	-	\$0.01	\$7.00	\$7.01	\$8.09	87%	\$12.97	54%
Participants	Participants	2	-	2	1,606	1,608	2,266	71%	3,622	44%

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

⁵⁶ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁵⁷ Completed projects through December 31, 2016 contains adjustments due to lagged data and QA/QC.

⁵⁸ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 18. Multifamily New Construction Market Rate Resource Acquisition Transition Initiative Results ^{59, 60}

Approval Date: February 29, 2016

Launch Date: August 8, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	496	496	4,488	11%	6,610	8%
	MWh Lifetime	-	-	-	9,916	9,916	89,775	11%	132,300	7%
	MMBtu Annual	-	-	-	10,042	10,042	33,050	30%	47,900	21%
	MMBtu Lifetime	-	-	-	200,840	200,840	660,750	30%	957,000	21%
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	795	795	4,115	19%	6,020	13%
	Lifetime Tons	-	-	-	15,894	15,894	82,300	19%	120,400	13%
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$0.13	\$0.13	\$0.95	14%	\$6.46	2%
	Lifetime Dollars	-	-	-	\$2.58	\$2.58	\$19.00	14%	\$28.0	9%
Private Investment (millions)	Dollars	-	-	-	-	-	\$12.03	-	\$17.5	-
Participants	Participants	-	-	-	279	279	2,375	12%	3,500	8%

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

⁵⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁶⁰ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 19. Multifamily New Construction Low- to Moderate-Income Resource Acquisition Transition Initiative Results^{61, 62}

Approval Date: February 29, 2016

Launch Date: August 8, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	4,919	4,919	12,525	39%	18,900	26%
	MWh Lifetime	-	-	-	98,389	98,389	250,500	39%	378,000	26%
	MMBtu Annual	-	-	-	75,583	75,583	92,125	82%	136,600	55%
	MMBtu Lifetime	-	-	-	1,511,666	1,511,666	1,847,500	82%	2,740,000	55%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	6,607	6,607	11,475	58%	17,190	38%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	132,131	132,131	229,000	58%	343,000	39%
	Annual Dollars	-	-	-	\$1.17	\$1.17	\$2.65	44%	\$4.00	29%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$23.45	\$23.45	\$53.0	44%	\$80.0	29%
	Dollars	-	-	-	-	-	\$33.6	-	\$50.1	-
Participants	Participants	-	-	-	2,776	2,776	6,625	42%	10,000	28%

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

⁶¹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁶² Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 20. Anaerobic Digesters Resource Acquisition Transition Initiative Results^{63, 64, 65}

Approval Date: February 29, 2016

Launch Date: July 8, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	12,500	60%	30,000	25%
	MWh Lifetime	-	-	-	74,440	74,440	125,000	60%	300,000	25%
	MW	-	-	-	1	1	1.25	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	3,917	3,917	6,563	60%	15,750	25%
	Lifetime Tons	-	-	-	39,168	39,168	65,625	60%	157,500	25%
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$1.29	\$1.29	\$0.38	343%	\$3.99	32%
	Lifetime Dollars	-	-	-	\$12.88	\$12.88	\$3.75	343%	\$39.9	32%
Private Investment (millions)	Dollars	-	-	-	\$8.0	\$8.0	\$3.75	213%	\$18.7	43%
Participants	Participants	-	-	-	2	2	3	80%	6	33%

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

⁶³ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁶⁴ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

⁶⁵ NYSERDA makes no claim to the environmental attributes or any NYGATS certificates that may be associated with these projects.

Table 21. Fuel Cells Resource Acquisition Transition Initiative Results^{66, 67, 68}

Approval Date: February 29, 2016

Anticipated Launch Date: TBD

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	-	-	-	-	-	6,250	-	15,000	-
	MWh Lifetime	-	-	-	-	-	62,500	-	150,000	-
	MW	-	-	-	-	-	0.75	-	1.8	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	-	-	3,250	-	7,800	-
	Lifetime Tons	-	-	-	-	-	32,500	-	78,000	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	-	-	\$0.63	-	\$1.50	-
	Lifetime Dollars	-	-	-	-	-	\$6.25	-	\$15.0	-
Private Investment (millions)	Dollars	-	-	-	-	-	\$5.00	-	\$12.0	-
Participants	Participants	-	-	-	-	-	3	-	6	-

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

⁶⁶ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁶⁷ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

⁶⁸ NYSERDA makes no claim to the environmental attributes or any NYGATS certificates that may be associated with these projects.

Table 22. Small Wind Resource Acquisition Transition Initiative Results^{69, 70, 71}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	-	487	460	948	2,875	33%	6,900	14%
	MWh Lifetime	9,744	-	9,744	9,208	18,953	57,500	33%	138,000	14%
	MW	0.22	-	0.22	0.3	0.5	1.25	40%	3	17%
CO2e Emission Reduction (metric tons)	Annual Tons	256	-	256	242	499	1,500	33%	3,600	14%
	Lifetime Tons	5,127	-	5,127	4,845	9,972	30,375	33%	72,900	14%
Customer Bill Savings (millions)	Annual Dollars	\$0.068	-	\$0.068	\$0.06	\$0.13	\$0.50	27%	\$1.2	11%
	Lifetime Dollars	\$1.37	-	\$1.37	\$1.28	\$2.65	\$10.0	27%	\$24.0	11%
Private Investment (millions)	Dollars	\$0.70	-	\$0.70	\$1.81	\$2.51	\$5.0	50%	\$12.0	21%
Participants	Participants	7	-	7	32	39	44	89%	105	37%

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

⁶⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁷⁰ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

⁷¹ NYSERDA makes no claim to the environmental attributes or any NYGATS certificates that may be associated with these projects.

Table 23. Solar Thermal Resource Acquisition Transition Initiative Results^{72, 73}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	8	-
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	104	19	123	707	830	7,000	10%	7,000	12%
	MWh Lifetime	1,566	283	1,849	10,604	12,453	104,000	10%	104,000	12%
	MW	-	-	-	-	-	*	*	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	55	10	65	372	437	4,000	9%	4,000	11%
	Lifetime Tons	824	149	973	5,580	6,552	55,000	10%	55,000	12%
Customer Bill Savings (millions)	Annual Dollars	\$0.01	\$0.00	\$0.02	\$0.09	\$0.1	\$1.18	8%	\$1.18	9%
	Lifetime Dollars	\$0.19	\$0.05	\$0.24	\$1.35	\$1.6	\$23.5	6%	\$23.5	7%
Private Investment (millions)	Dollars	\$0.08	\$0.00	\$0.08	\$0.74	\$0.8	\$7.0	11%	\$7.0	12%
Participants	Participants	7	1	8	34	42	190	22%	190	22%
Eligible Installers		5	-	5	-	5	20	25%	20	25%

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

⁷² This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁷³ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 24. Combined Heat & Power Resource Acquisition Transition Initiative Results^{74, 75, 76, 77, 78, 79}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	402	402	177,981	178,383	188,000	95%	287,000	62%
	MWh Lifetime	-	6,031	6,031	2,669,711	2,675,742	2,775,000	96%	4,230,000	63%
	MMBtu Annual	-	-	-	-	-	(1,056)	-	(1,620)	-
	MMBtu Lifetime	-	-	-	-	-	(15,845)	-	(24,310)	-
	MW	-	0.1	0.1	34	34	33	101%	51	66%
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO ₂ e Emission Reduction (metric tons)	Annual Tons	-	76	76	36,965	37,042	99,750	37%	149,000	25%
	Lifetime Tons	-	1,143	1,143	554,480	555,623	1,501,250	37%	2,240,000	25%
Customer Bill Savings (millions)	Annual Dollars	-	\$0.06	\$0.06	\$17.36	\$17.42	\$26.30	66%	\$38.1	46%
	Lifetime Dollars	-	\$0.84	\$0.84	\$260.45	\$261.29	\$394.00	66%	\$571.0	46%
Private Investment (millions)	Dollars	-	\$3.26	\$3.26	\$176.53	\$179.79	\$104.50	172%	\$152	118%
Installations	Participants	-	7	7	74	81	50	163%	86	94%
MT Marketplace		-	-	-	8	8	4	200%	24	33%

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

⁷⁴ Technical assistance energy savings and dollars metrics included for ten CHP studies.

⁷⁵ Cumulative Current Target (2016) and Total Target through Initiative Completion (2019) 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 in this report because it will take time for the benefits to be realized.

⁷⁶ Committed benefits include four large projects in the early stages of NYSERDA review (with a combined capacity of 28.4 MW) to which refinements will be made in future reports, as needed.

⁷⁷ CHP targets and reporting methods associated with fuel used to run the CHP systems are being examined and may be adjusted in future reports.

⁷⁸ Energy Efficiency values represent MWh savings from the use of CHP systems; natural gas required to run CHP systems (1,068,784 MMBtu cumulative annual and 16,031,764 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.

⁷⁹ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% 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 25. Market Development Initiative Budgets and Spending ⁸⁰

Initiative	Budget Approved as of December 31, 2016 ^a	Expended Funds ^b	Open Encumbrances ^c	Contract Pre-Encumbrances ^d	Committed Funds ^e	% of Approved Budget Committed ^f	Budget Approved Remaining Balance ^g
Market Characterization & Design Chapter	\$11,500,000	\$413,853	\$96,086	\$130,000	\$639,939	6%	\$10,860,061
Commercial Chapter							
Real Estate Tenant	\$25,500,000	\$61,488	\$1,322,694	\$29,150	\$1,413,332	6%	\$24,086,668
Real Time Energy Management	\$46,500,000	\$53,065	\$569,649	\$1,966,896	\$2,589,610	6%	\$43,910,390
REV Campus Challenge	\$19,650,000	\$26,495	\$536,134	\$760,000	\$1,322,629	7%	\$18,327,371
Commercial Chapter Total	\$91,650,000	\$141,048	\$2,428,477	\$2,756,046	\$5,325,571	6%	\$86,324,429
Industrial Chapter							
Continuous Energy Improvement	\$9,980,739	\$1,322	\$1,071,173	\$1,583,680	\$2,656,175	27%	\$7,324,564
Industrial Chapter Total	\$9,980,739	\$1,322	\$1,071,173	\$1,583,680	\$2,656,175	27%	\$7,324,564
Communities Chapter							
Clean Energy Communities	\$14,218,526	\$13,741	-	\$600,000	\$613,741	4%	\$13,604,786
Community Energy Engagement	\$4,409,882	-	-	-	-	0%	\$4,409,882
Communities Chapter Total	\$18,628,408	\$13,741	-	\$600,000	\$613,741	3%	\$18,014,668
Large-Scale Renewables Chapter							
Offshore Wind Master Plan	\$5,000,000	\$931,649	\$808,351	-	\$1,740,000	35%	\$3,260,000
Offshore Wind Pre-Development Activities	\$10,000,000	\$48,514	\$1,487	\$1,086,113	\$1,136,113	11%	\$8,863,887
Large-Scale Renewables Chapter Total	\$15,000,000	\$980,162	\$809,838	\$1,086,113	\$2,876,113	19%	\$12,123,887
REV Technical Assistance Chapter							
REV Connect	\$2,500,000	\$343,004	\$1,797,140	-	\$2,140,144	86%	\$359,856
REV Technical Assistance Chapter Total	\$2,500,000	\$343,004	\$1,797,140	-	\$2,140,144	86%	\$359,856
Energy Storage Chapter							
Reducing Barriers to Distributed Deployment	\$24,450,000	\$29,505	\$495	\$2,040,698	\$2,070,698	8%	\$22,379,302
Energy Storage Chapter Total	\$24,450,000	\$29,505	\$495	\$2,040,698	\$2,070,698	8%	\$22,379,302
Clean Transportation Chapter							
Electric Vehicles	\$39,500,000	-	-	-	-	0%	\$39,500,000
Clean Transportation Chapter Total	\$39,500,000	-	-	-	-	0%	\$39,500,000

Table 25 continued

Agriculture Chapter							
2030 GLASE	\$5,000,000	-	\$5,000,000	-	\$5,000,000	100%	-
Agriculture Chapter Total	\$5,000,000	-	\$5,000,000	-	\$5,000,000	100%	-
Low- to Moderate-Income Chapter							
RetrofitNY	\$30,503,500	-	\$50,000	-	\$50,000	0%	\$30,453,500
REVitalize	\$725,000	-	-	-	-	0%	\$725,000
Low-Income Forum on Energy	\$1,300,000	\$3,071	\$48,886	-	\$51,957	4%	\$1,248,043
Healthy Homes Feasibility Study	\$215,000	-	\$212,147	-	\$212,147	99%	\$2,853
Low- to Moderate-Income Chapter Total	\$32,743,500	\$3,071	\$311,033	-	\$314,104	1%	\$32,429,396
Workforce Development and Training Chapter							
Industry Partnerships	\$6,845,000	\$12,726	\$197,274	\$12,000	\$222,000	3%	\$6,623,000
Workforce Development and Training Chapter Total	\$6,845,000	\$12,726	\$197,274	\$12,000	\$222,000	3%	\$6,623,000
NYS Cost Recovery Fee	\$15,930,120	\$1,095,979	-	-	\$1,095,979	7%	\$14,834,141
Total Market Development	\$273,727,767	\$3,034,411	\$11,711,516	\$8,208,537	\$22,954,465	8%	\$250,773,303

- a Funds approved by the DPS as of March 31, 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 The sum of Expended Funds, Open Encumbrances, and Contract Pre-Encumbrances.
- f The percentage of the budget that has been committed.
- g The difference between Budget Approved Funds and Committed Funds.

⁸⁰ NYSERDA committed an additional \$16,715,932 to solicitations with upcoming due dates not included in the above table. When including these funds, NYSERDA committed 14% 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 26. Real Estate Tenant Initiative Results^{81, 82}

Approval Date: May 23, 2016

Launch Date: July 19, 2016

Innovation & Research Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2024)	% of Total Target through Initiative Completion (2024)
Energy Efficiency	MWh Annual	-	-	-	392	392	8,875	4%	124,900	0.3%
	MWh Lifetime	-	-	-	3,132	3,132	70,800	4%	998,900	0.3%
	MMBtu Annual	-	-	-	414	414	9,350	4%	131,800	0.3%
	MMBtu Lifetime	-	-	-	3,314	3,314	74,750	4%	1,053,000	0.3%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	229	229	5,200	4%	72,900	0.3%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	1,829	1,829	41,250	4%	582,000	0.3%
	Annual Dollars	-	-	-	\$0.07	\$0.07	\$1.23	6%	\$17.34	0.4%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$0.54	\$0.54	\$9.83	6%	\$138.7	0.4%
	Dollars	-	-	-	\$0.02	\$0.02	\$0.86	2%	\$12.15	0.2%
Participants	Participants	-	-	-	3	3	81	4%	1,349	0.2%

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

⁸¹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁸² Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 27. 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 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. Three applications were received in the first quarter of 2017. Based on market feedback received and stakeholder interaction during the first six months of outreach, the Program Opportunity Notice is being revised to incorporate changes that will increase uptake.
	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 27 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	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 28. Real Time Energy Management (RTEM) Initiative Results^{83, 84}

Approval Date: May 23, 2016

Launch Date: June 20, 2016

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2024)	% of Total Target through Initiative Completion (2024)
Energy Efficiency	MWh Annual	-	-	-	3,766	3,766	29,528	13%	311,030	1%
	MWh Lifetime	-	-	-	30,124	30,124	236,221	13%	2,489,000	1%
	MMBtu Annual	-	-	-	3,228	3,228	13,120	25%	138,200	2%
	MMBtu Lifetime	-	-	-	25,821	25,821	104,961	25%	1,106,000	2%
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	2,153	2,153	16,230	13%	171,000	1%
	Lifetime Tons	-	-	-	17,223	17,223	129,840	13%	1,368,000	1%
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$0.63	\$0.63	\$4.00	16%	\$42.13	1%
	Lifetime Dollars	-	-	-	\$5.0	\$5.0	\$32.0	16%	\$337.0	1%
Private Investment (millions)	Dollars	-	-	-	\$0.44	\$0.44	\$13.67	3%	\$292.10	0.2%
Participants	Participants	-	-	-	23	23	40	58%	700	3%

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

⁸³ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁸⁴ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 29. 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 in-flow of applications. The RTEM RFQ received 80 applications to date and 40 vendors are currently approved.
✓	2016	Stimulate interest and market activity with an open enrollment incentive offering.	The RTEM Program Opportunity Notice 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.
✓	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 is causing these opportunities to be adopted sooner than would have occurred.
	2016	A Technical Guidance Document is drafted and tested.	After consulting with market providers, customers, and industry experts, it is recommended that this milestone's expected progress timing be adjusted to such a time when project level data has been obtained. Therefore, NYSERDA recommends the progress timing be adjusted from 2016 to 2018.

Table 29 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016	A training platform for facility owners/operators is designed.	After consulting with market providers, customers, and industry experts, it is recommended that this milestone's expected progress timing be adjusted to such a time when customer needs are better defined through project level understanding. Therefore, NYSERDA recommends adjusting the progress timing from 2016 to 2018.
	2016–2020	Incentives, Qualified Vendor Listing, and Independent RTEM advisor services help convert prospective customers into committed and installed RTEM projects.	The Program received 20 applications in the first quarter of 2017.
	2016-2020	NYSERDA market support and approach attract new RTEM vendors to the New York State market and increase business development investment of all RTEM vendors.	
	2016–2020	RTEM Advisor supports gaps in market confidence and identifies market approaches to eliminating gaps.	
	2016–2020	Peer-to-peer exchanges and RTEM advisor transfer learnings across the projects supported by NYSERDA and enhance success.	
	2016–2020	Technical Guidance Document is published.	
	2016–2020	NYSERDA in coordination with industry partners standardizes methodologies for calculating/analyzing costs and savings data.	
	2016–2020	Training platform is available and used by facility owners/operators.	

Table 29 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016–2020	Continuous input from industry experts and key stakeholders help with test/measure/adjust methods.	Market indicators suggest innovative business models are embedding RTEM system costs into the service costs, also known as Platform as a Service. The RTEM Program Opportunity Notice was revised in September 2, 2016 to allow for these innovative business models to take full advantage of the program. The second revision to the program was made on December 27, 2016, which removed the >50,000 square foot project eligibility requirement to allow smaller sites to be eligible. It was not anticipated that the small sector would be active in the market this early in the program.
	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.	
	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 NYSERDA’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 30. Reforming the Energy Vision (REV) Campus Challenge Initiative Results^{85, 86}

Approval Date: May 23, 2016

Launch Date: December 21, 2016

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	-	-	3,850	-	92,630	-
	MWh Lifetime	-	-	-	-	-	58,000	-	1,389,000	-
	MMBtu Annual	-	-	-	-	-	23,925	-	574,300	-
	MMBtu Lifetime	-	-	-	-	-	360,000	-	8,614,000	-
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	-	-	368	-	8,804	-
	MWh Lifetime	-	-	-	-	-	5,500	-	132,100	-
	MW	-	-	-	-	-	0.25	-	8	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	-	-	3,500	-	83,830	-
	Lifetime Tons	-	-	-	-	-	52,500	-	1,257,000	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	-	-	0.645	-	\$15.49	-
	Lifetime Dollars	-	-	-	-	-	9.68	-	\$232.3	-
Private Investment (millions)	Dollars	-	-	-	-	-	2.25	-	\$62.21	-
Participants	Participants	-	-	-	77	77	48	162%	150	51%

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

⁸⁵ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁸⁶ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 31. 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 77 member institutions as of the close of Q1 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/Semi-annual 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 32. Continuous Energy Improvement Initiative On-Site Energy Manager Results^{87, 88}

Approval Date: May 23, 2016

Launch Date: September 12, 2016

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	17,260	17,260	18,750	92%	42,000	41%
	MWh Lifetime	-	-	-	258,900	258,900	281,250	92%	630,000	41%
	MMBtu Annual	-	-	-	78,250	78,250	218,750	36%	500,000	16%
	MMBtu Lifetime	-	-	-	1,173,750	1,173,750	3,287,500	36%	7,500,000	16%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	13,146	13,146	22,250	59%	50,400	26%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	197,185	197,185	333,750	59%	756,000	26%
	Annual Dollars	-	-	-	\$1.76	\$1.76	\$3.45	51%	\$7.81	23%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$26.39	\$26.39	\$51.63	51%	\$117	23%
	Dollars	-	-	-	\$0.27	\$0.27	\$25.25	1%	\$55.8	0.5%
Participants	Participants	-	-	-	4	4	19	21%	40	10%

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

⁸⁷ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁸⁸ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 33. Key Milestones for Continuous Energy Improvement for On-Site Energy Manager

Complete ✓	Time Frame	Milestone	Explanation of Progress
	Years 1-2	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 (Program Opportunity Notice 3334) was released in September 2016 and accepted applications through March 31, 2017. Seven applications were received for the first pilot from seven industrial sites engaged with four energy focused consultants. A second pilot is under development to better address marketplace needs and is scheduled to be released in September 2017.
	Years 1-2	C-suite executive buy-in and engagement that provides momentum for energy planning and management activities at industrial sites.	The On-site Energy Manager solicitation (Program Opportunity Notice 3334) was released in September 2016 and accepted applications through March 31, 2017. Seven applications with c-suite executive buy-in and engagement have been received for the first pilot. A second pilot is under development to better address marketplace needs and is scheduled to be released in September 2017.
	Years 1-2	Industrial end user commitment to energy goal creation and realization is key to successful On-site Energy Manager engagements.	The On-site Energy Manager solicitation (Program Opportunity Notice 3334) was released in September 2016 and accepted applications through March 31, 2017. Seven applications with energy savings goals have been received for the first pilot. A second pilot is under development to better address marketplace needs and is scheduled to be released in September 2017.

Table 33 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	Years 1-2	Robust tracking and reporting of energy and non-energy benefits of the On-site Energy manager role.	The On-site Energy Manager solicitation (Program Opportunity Notice 3334) was released in September 2016 and accepted applications through March 31, 2017. Seven applications have been received with five projects contracted and two pending review. The first contracted projects will submit their quarterly reports of energy and non-energy benefits of the On-site Energy Manager role beginning in June 2017.
	Years 2-3	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.	
	Years 2-3	Business case content for consultant marketing plans, which address this need in the industrial market.	
	Year 3	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).	
	Year 3	Transition of knowledge and tools from pilot On-site Energy Managers to long-term energy resource.	
	Year 3	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 34. Continuous Energy Improvement Initiative Strategic Energy Management Results^{89, 90}

Approval Date: May 23, 2016

Launch Date: November 22, 2016

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target (2016)	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	-	-	34,500	-	34,500	-
	MWh Lifetime	-	-	-	-	-	518,000	-	518,000	-
	MMBtu Annual	-	-	-	-	-	267,000	-	267,000	-
	MMBtu Lifetime	-	-	-	-	-	4,000,000	-	4,000,000	-
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO ₂ e Emission Reduction (metric tons)	Annual Tons	-	-	-	-	-	33,200	-	*	-
	Lifetime Tons	-	-	-	-	-	498,000	-	498,000	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	-	-	\$5.18	-	\$5.18	-
	Lifetime Dollars	-	-	-	-	-	\$77.7	-	\$77.7	-
Private Investment (millions)	Dollars	-	-	-	-	-	\$54.6	-	\$54.6	-
Participants	Participants	-	-	-	-	-	3	-	20	-

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

⁸⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁹⁰ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 35. Key Milestones for Continuous Energy Improvement Strategic Energy Management

Complete ✓	Time Frame	Milestone	Explanation of Progress
	Year 1-2	<p>Facilities understand how energy intensity is embedded in their process and have integrated energy management into their organizational culture.</p> <ul style="list-style-type: none"> • 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. 	<p>The Strategic Energy Management solicitation (Program Opportunity Notice 3411) was released in November 2016 and is accepting applications to participate in the first pilot.</p>
	Year 2 and beyond	<p>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.</p> <ul style="list-style-type: none"> • 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). • Executive support to implement energy-related projects. 	
	Year 2 and beyond	<p>Strategic Energy Management replaces the ad hoc energy project approach resulting in deeper and continuous energy savings and energy decision-making at industrial facilities.</p> <ul style="list-style-type: none"> • Critical staff can express how the energy measures they have implemented have affected their bottom line. 	
	Year 3 and beyond	<p>Market actors seek out developed information and standardized tools as well as contractor support to implement and adopt Strategic Energy Management.</p> <ul style="list-style-type: none"> • Tracked inquiries and dissemination of case studies, training, Strategic Energy Management resources, and vetted consultant lists. 	

Table 36. Clean Energy Communities Initiative Results^{91, 92, 93}

Approval Date: May 23, 2016

Launch Date: August 3, 2016

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	8,428	8,428	-	8,428	23,725	36%	73,300	11%
	MWh Lifetime	-	126,427	126,427	-	126,427	355,750	36%	1,099,000	12%
	MMBtu Annual	-	25,614	25,614	-	25,614	426,500	6%	1,318,000	2%
	MMBtu Lifetime	-	384,204	384,204	-	384,204	6,407,500	6%	19,780,000	2%
Renewable Energy	MW	-	-	-	-	-	10	-	31	-
	MWh Annual	-	2,966	2,966	-	2,966	35,425	8%	109,300	3%
	MWh Lifetime	-	44,496	44,496	-	44,496	531,000	8%	1,640,000	3%
CO2e Emission Reduction (metric tons)	MW	-	3	3	-	3	20	12%	63	4%
	Annual Tons	-	7,443	7,443	-	7,443	56,900	13%	175,700	4%
Customer Bill Savings (millions)	Lifetime Tons	-	111,647	111,647	-	111,647	854,000	13%	2,631,000	4%
	Annual Dollars	-	\$1.74	\$1.74	-	\$1.74	\$9.37	19%	\$28.94	6%
Private Investment (millions)	Lifetime Dollars	-	\$26.08	\$26.08	-	\$26.08	\$140.60	19%	\$433.6	6%
	Dollars	-	\$2.77	\$2.77	-	\$2.77	\$14.98	19%	\$46.20	6%
Participants	Participants	-	9	9	-	9	108	8%	333	3%

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

⁹¹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁹² Due to the split-funded nature of this program, NYSERDA is also tracking and report 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.

⁹³ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 37. Key Milestones for Clean Energy Communities

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016–2019	80 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. 28 communities completed at least four actions and are officially designated Clean Energy Communities. In total, 135 Communities completed 316 High-Impact Actions.</p> <p>Anticipated savings from the 316 completed High-Impact Actions (when combined with savings reported in Regional Greenhouse Gas Initiative (RGGI) reporting), include:</p> <ul style="list-style-type: none"> • 132,087 MWh Electricity Savings • 46,488 MWh Renewable Generation • 40 MW Renewable Generation • 322,770 MMBtu Natural Gas Savings • 1,051 MMBtu Gasoline Savings • 67,583 MMBtu #2 Fuel Oil Savings
	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 now 10 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 38. Offshore Wind Master Plan Initiative Results^{94, 95}

Approval Date: May 23, 2016

Launch Date: September 15, 2016

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	-	-	-	-	-	*	-	*	-
Participants	Participants	-	-	-	-	-	*	-	*	-

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

⁹⁴ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁹⁵ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 39. 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>First public Offshore Wind meeting held on 6/29/16. Met with environmental groups on 11/9/16. Met with fishing industry on 11/15/16 (Marine Resources Advisory Council), 12/2/16 (Long Island Traditions), 12/12/16 (Mid-Atlantic Fishery Management Council) and 1/17/17 (Marine Resources Advisory Council). Met with environmental groups on 2/23/17 to review environmental data and gap analysis. Initial outreach to tribal nations, submarine and telecom cable industry and Navy complete. Meetings with elected officials in Long Island being scheduled for May. Open houses in Long Island for coastal communities being scheduled for early June. Engagement with BOEM and state agencies ongoing. Stakeholder groups are as follows:</p> <ol style="list-style-type: none"> 1. Coastal communities 2. Commercial and recreational fishing 3. Tribal nations 4. Labor and business 5. State and federal agencies 6. Elected officials 7. Offshore wind energy industry 8. Submarine cables and offshore infrastructure 9. Non-governmental organizations 10. Ratepayer advocates

Table 39 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> <ol style="list-style-type: none"> 1. Onshore permitting constraints 2. Recreational uses 3. Sand and gravel resources 4. Marine archeology and cultural resources 5. Aviation and radar 6. Benthic environment – sediment profile imaging and multi-beam echo sounder survey 7. Marine mammals 8. Cumulative effects 9. Birds 10. Fish and fisheries 11. Environmental sensitivity and permitting risk analysis 12. Shipping and Navigation 13. Metocean 14. Turbine Layouts 15. Project Envelope 16. Pipelines, Cable, and Third-Party Infrastructure 17. Health & Safety 18. Visual Simulation 19. Grid Interconnection 20. Cost Projection 21. Jobs and Economic Benefits 22. Vessel Determinants 23. Port Supply Chain

Table 40. Offshore Wind Pre-Development Activities Initiative Results^{96, 97}

Approval Date: May 23, 2016

Launch Date: December 12, 2016

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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.

⁹⁶ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁹⁷ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 41. Key Milestones for Offshore Wind Pre-Development Activities

Complete ✓	Time Frame	Milestone	Explanation of Progress
		Reports resulting from pre-development work validating New York State Offshore Wind resource and proposing potential additional wind energy areas for development.	Solicitation issued for offshore wind technical assistance in December 2016. Awards were made in early 2017 and contracting is underway.
		Reports providing site-specific data needed to support detailed siting, design, and permitting of offshore wind project(s).	Contractor hired to assist in method development for measuring site-specific wind, wave and other data. Additional planning and scoping is underway for site-specific environmental, sea floor, and other studies and surveys. Benthic survey commencing in Q2 2017.

Table 42. REV Connect Initiative Results^{98, 99}

Approval Date: May 23, 2016

Launch Date: August 9, 2016

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	-	-	*	-	*	-
	Lifetime Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	-	-	*	-	*	-
	Lifetime Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Dollars	-	-	-	-	-	\$0.06	-	\$0.50	-
Participants	Participants	-	-	-	-	-	*	-	*	-

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

⁹⁸ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁹⁹ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 43. Key Milestones for REV Connect

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	Q3 2016	Execute contract with partner to operate REV Connect.	REV Connect Contractor competitively selected and under contract.
	Q3 2016	Create information resources and summarize best practices.	Initial market research interviews completed and findings summarized. Draft information resources materials completed, reviewed, and under revision.
	Q4 2016	Launch initial REV Connect platform to allow submission of project ideas.	Development of the REV Connect web platform is ongoing. Following user testing, the website is expected to launch in Q2 2017.
	Q4 2016	Develop project evaluation criteria and process.	Draft project evaluation criteria and process are currently under revision to incorporate stakeholder input. In Q2 2017, the criteria and process will be tested through evaluating sample projects.
	Q2 2017	Draft Innovation Plan completed.	

Table 44. Reducing Barriers to Deploying Distributed Energy Storage Initiative Results^{100, 101}

Approval Date: August 17, 2016

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

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	-	-	1,450	-	13,850	-
	MWh Lifetime	-	-	-	-	-	14,500	-	138,500	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	3	-	25	-
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	-	-	762	-	7,286	-
	Lifetime Tons	-	-	-	-	-	7,615	-	72,860	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	-	-	\$0.19	-	\$1.842	-
	Lifetime Dollars	-	-	-	-	-	\$1.93	-	\$18.42	-
Private Investment (millions)	Dollars	-	-	-	-	-	\$5.83	-	\$30.10	-
Number of customers engaged (sites for developments)	Participants	-	-	-	-	-	23	-	120	-
Number of vendors engaged	Participants	-	-	-	10	10	11	95%	45	22%

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

¹⁰⁰ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹⁰¹ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 45. 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. ¹⁰² 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.	Engaged with distribution utilities and New York Independent System Operator (NYISO) to ensure coordination in value stacking pilots offering to be released in April 2017.
	2017	Expand scope of battery testing lab for additional chemistries to be tested.	
	2017	Model permitting guides are developed.	Work underway with the New York City Fire Department, and New York City Department of Buildings initially, with support from City University of New York and DNV GL.
	2017	Public platform is launched including use cases, system performance results, and fact sheets.	
	2017	Customers with deployed energy storage systems begin engaging for post installation quality assurance to validate savings.	
	2017	Safety testing is completed on additional emerging commercial chemistries.	
	2017	Market segmentation for NYSERDA customer acquisition activities supported under this investment plan expands to non-interval metered customers.	
	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.	

¹⁰² <https://www.nysesda.ny.gov/-/media/Files/Publications/Research/Energy-Storage/20170118-ConEd-NYSERDA-Battery-Testing-Report.pdf>

Table 45 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Increasing numbers of energy storage vendors are engaged in New York State, as surveyed at least annually.	
	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 installed cost decreases, revenue opportunities are better quantified, and results of pilots increase performance confidence.	

Table 46. Electric Vehicles Rebate Initiative Results^{103, 104}

Approval Date: August 17, 2016

Launch Date: March 21, 2017

Innovation & Research Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2020)	% of Total Target through Initiative Completion (2020)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	150,000	-	1,430,000	-
	MMBtu Lifetime	-	-	-	-	-	1,500,000	-	14,300,000	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	8,040	-	76,730	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	80,400	-	767,300	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	-	-	\$107.75	-	\$1,026.0	-
Participants	Participants	-	-	-	-	-	3075	-	21150-37500	-

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

¹⁰³ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹⁰⁴ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 47. Key Milestones for Electric Vehicles Rebate

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

Table 48. 2030 Greenhouse Lighting and Systems Engineering (GLASE) Initiative Results^{105, 106}

Approval Date: September 15, 2016

Launch Date: January 1, 2017

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	-	-	-	\$3.20	\$3.20	\$9.46	34%	\$9.46	34%
Participants	Participants	-	-	-	1	1	1	100%	25	4%

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

¹⁰⁵ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹⁰⁶ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 49. Key Milestones for Greenhouse Lighting and Systems Engineering (GLASE)

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	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 CO2 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 CO2 supplementation and light and shade control system.	
	2020	Monitor large (20,000 square feet) pilot demonstration of CO2 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 CO2 supplementation and light and shade control system.	
	2021	Publish case study of demonstration.	
	2021	Formal training offered to service providers.	

Table 50. RetrofitNY Initiative Results^{107, 108}

Approval Date: August 31, 2016

Anticipated Launch Date: April, 4 2017

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	-	-	58	-	187,100	-
	MWh Lifetime	-	-	-	-	-	1,148	-	3,741,000	-
	MMBtu Annual	-	-	-	-	-	1,030	-	3,353,000	-
	MMBtu Lifetime	-	-	-	-	-	20,575	-	67,060,000	-
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	-	-	89	-	290,000	-
	Lifetime Tons	-	-	-	-	-	1,780	-	5,800,000	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	-	-	\$0.02	-	\$56	-
	Lifetime Dollars	-	-	-	-	-	\$0.35	-	\$1,122	-
Private Investment (millions)	Dollars	-	-	-	-	-	*	-	\$1,411	-
Participants	Participants	-	-	-	-	-	43	-	100,000	-

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

¹⁰⁷ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹⁰⁸ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 51. 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). Committee member organizations are in the process of validating these criteria internally.
	2017	Sufficient potential demand for deep energy retrofits is aggregated.	
	2017	Competitive solicitation for the first round of the design-build competition is released.	
	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 market.	
	2025	Financing solutions exists for building owners to purchase these solutions with minimal upfront cost.	
	2025	Solutions are implemented on non-Affordable Housing buildings without subsidy.	

Table 52. REVitalize Initiative Results ^{109, 110}

Approval Date: August 31, 2016

Anticipated Launch Date: Q2 2017

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	-	-	440	-	2,994	-
	MWh Lifetime	-	-	-	-	-	8,800	-	59,880	-
	MW	-	-	-	-	-	0.35	-	2.4	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	-	-	232	-	1,575	-
	Lifetime Tons	-	-	-	-	-	4,625	-	31,500	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	-	-	\$0.07	-	\$0.48	-
	Lifetime Dollars	-	-	-	-	-	\$1.39	-	\$9.46	-
Private Investment (millions)	Dollars	-	-	-	-	-	\$0.94	-	\$5.88	-
Participants	Participants	-	-	-	-	-	1	-	5	-

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

¹⁰⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹¹⁰ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 53. Key Milestones for REVitalize

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016	Issue a competitive solicitation seeking proposals for a community energy planning effort that benefits LMI communities and residents.	The solicitation is under development and will be issued in Q2 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.	
	2017	NYSERDA receives feedback from community groups and on the toolkit.	
	2018	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 54. Low- Income Forum on Energy Initiative Results^{111, 112}

Approval Date: August 31, 2016

Launch Date: August 31, 2016

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Participants	Participants	313	109	422	-	422	939	45%	7,296	6%

¹¹¹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹¹² Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 55. Key Milestones for Low- Income Forum on Energy

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	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.	Planning is underway for a series of seven LIFE 2017 Regional Meetings. Meeting dates have been confirmed for May 2017, with one meeting being held in each of the following NYS regions: New York City, Long Island, Western New York, Southern Tier, North Country, Hudson Valley and Capital Region.
	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 of 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.
	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 56. Key Milestones for Healthy Homes Feasibility

Approval Date: August 31, 2016

Launch Date: January 20, 2017

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016	Complete feasibility study and make a determination on whether to continue with the pilot design and implementation phase.	The feasibility study is currently underway. Completion of the study is anticipated in Q2 2017.
	2016	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 Q2 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 57. Industry Partnerships Initiative Results^{113, 114}

Approval Date: September 15, 2016

Launch Date: January 13, 2017

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	-	-	2,303	-	90,270	-
	MWh Lifetime	-	-	-	-	-	18,425	-	722,200	-
	MMBtu Annual	-	-	-	-	-	15,250	-	597,700	-
	MMBtu Lifetime	-	-	-	-	-	122,000	-	4,781,000	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	2,020	-	79,200	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	16,175	-	633,600	-
	Annual Dollars	-	-	-	-	-	\$0.39	-	\$15.31	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	\$3.13	-	\$122.4	-
	Dollars	-	-	-	-	-	\$0.56	-	\$6.845	-
Participants	Participants	-	-	-	-	-	9	-	24	-

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

¹¹³ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹¹⁴ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 58. 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	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.
	2016	Begin to collect data from demonstration sites.	Demonstration sites have been identified and, in some cases, data loggers have been installed.
	2016	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.
	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 ripe for partnership strategies. Those currently under consideration include large scale renewables, industrial technologies (specifically, compressed air), and geothermal.
✓	2016	Issue a solicitation to support the development of building operations and maintenance training initiatives that address skill gaps and facilitate career paths.	Program Opportunity Notice 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 April 27, 2017 or while funds are available.

Table 58 continued

	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.	

Table 59. Community Energy Engagement Initiative Results^{115, 116}

Approval Date: March 3, 2017

Anticipated Launch Date: Q2 2017

Market Development Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	-	-	-	-	-	\$0.43	-	\$1.73	-
Participants	Participants	-	-	-	-	-	838	-	3353	-

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

¹¹⁵ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹¹⁶ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 60. Key Milestones Community Energy Engagement

Complete	Time Frame	Milestone	Explanation of Progress
✓	2017	NYSERDA issues competitive “base activities” solicitation.	RFP expected to be released Q2 2017.
	2017	Awards from base activity solicitation are contracted.	
	2017	Commencement of local outreach and support to households and communities (with the focus on LMI).	
	2018	NYSERDA initiates awards proposals for regional-specific pilot projects.	
	2018–2020	NYSERDA develops one or more case study on regional-specific pilot projects and other support provided through the base activities.	
	2019	Conduct surveys of customers assisted by LBOs to assess performance.	

4 Innovation and Research Initiative Specific Results

Table 61. Innovation & Research Initiative Budgets and Spending^{117, 118}

Initiative	Budget Approved as of December 31, 2016 ^a	Expended Funds ^b	Open Encumbrances ^c	Contract Pre-Encumbrances ^d	Committed Funds ^e	% of Approved Budget Committed ^f	Budget Approved Remaining Balance ^g
Market Characterization & Design Chapter	\$250,000	-	-	-	-	0%	\$250,000
Grid Modernization Chapter							
DER Interconnection	\$6,300,000	\$459,999	\$224,441	\$1,950,660	\$2,635,100	42%	\$3,664,900
High Performing Grid	\$110,500,000	-	-	-	-	0%	\$110,500,000
Grid Modernization Chapter Total	\$116,800,000	\$459,999	\$224,441	\$1,950,660	\$2,635,100	2%	\$114,164,900
Innovation Capacity and Business Development Chapter							
CleanTech Startup Growth	\$19,000,000	-	-	\$8,300,000	\$8,300,000	44%	\$10,700,000
Manufacturing Corps	\$12,000,000	-	-	-	-	0%	\$12,000,000
Innovation Capacity and Business Development Chapter Total	\$31,000,000	-	-	\$8,300,000	\$8,300,000	27%	\$22,700,000
Building Innovation Chapter							
NextGen HVAC	\$15,000,000	-	\$60,000	\$98,089	\$158,089	1.1%	\$14,841,911
Building Innovation Chapter Total	\$15,000,000	-	\$60,000	\$98,089	\$158,089	1.1%	\$14,841,911
Clean Transportation Chapter							
Electric Vehicles	\$11,850,000	-	-	-	-	0%	\$11,850,000
Clean Transportation Chapter Total	\$11,850,000	-	-	-	-	0%	\$11,850,000
Energy-Related Environmental Research Chapter							
Environmental Research	\$30,000,000	-	-	-	-	0%	\$30,000,000
Energy-Related Environmental Research Chapter Total	\$30,000,000	-	-	-	-	0%	\$30,000,000
Renewables Optimization Chapter							
Energy Storage Innovations	\$33,000,000	-	-	-	-	0%	\$33,000,000
Renewables Optimization Chapter Total	\$33,000,000	-	-	-	-	0%	\$33,000,000
NYS Cost Recovery Fee	\$6,067,696	\$11,678	-	-	\$11,678	0%	\$6,056,018
Innovation Capacity and Bus. Dev. Chapter Total	\$243,967,696	\$471,677	\$284,441	\$10,348,749	\$11,104,867	5%	\$232,862,829

Table notes are on the next page.

¹¹⁷ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹¹⁸ NYSERDA has committed an additional \$13,149,900 to solicitations with upcoming due dates not included in the table above. When including these funds, NYSERDA has committed 10% 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.

- a Funds approved by DPS as of March 31, 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 The sum of Expended Funds, Open Encumbrances, and Contract Pre-Encumbrances.
- f The percentage of the budget that has been committed.
- g The difference between Budget Approved Funds and Committed Funds.

Table 62. Distributed Energy Resource Interconnection Initiative Results ^{119, 120}

Approval Date: May 23, 2016

Launch Date: October 20, 2016

Innovation & Research Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	\$3.97	92%	\$5.83	62%
Participants	Participants	-	-	-	11	11	4	259%	13	85%

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

¹¹⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹²⁰ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 63. 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 roadmap 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.	Staff is in the contracting process with the 11 proposals selected for award under PON 3404. Some of the contracts are in place while others are still in negotiation.
	Q2 2017	Grid Modernization Roadmap complete.	

Table 64. High Performing Grid Initiative Results^{121, 122}

Approval Date: May 23, 2016

Launch Date: September 16, 2016

Innovation & Research Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	-	-	-	-	-	\$6.83	-	\$84.25	-
Participants	Participants	-	-	-	-	-	8.25	-	64	-

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

¹²¹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹²² Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 65. 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 released in October 2016, with initial proposal due date of January 11, 2017. Approval to enter contracts with 11 awardees from Round 1 of Program Opportunity Notice 3397 is expected in April 2017.
	2017	Enter into contracts for projects awarded under the broad competitive solicitation #1.	Staff is in the contracting process with the 11 proposals selected for award under Program Opportunity Notice 3397.
	2017	Identify near-term opportunities for applied research that are aligned with utility supplemental DSIPs and the NY Grid Modernization Roadmap.	
	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 1 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 65 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 66. Cleantech Startup Growth Initiative Results ^{123, 124}

Approval Date: May 23, 2016

Launch Date: October 12, 2016

Innovation & Research Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	-	-	-	-	-	\$95.63	-	\$225	-
Participants	Participants	-	-	-	-	-	55	-	191	-

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

¹²³ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹²⁴ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 67. Key Milestones for Cleantech Startup 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 currently in the final stages of negotiation and should be in place by the end of April.
✓	2017	Second competitive solicitation launched.	Announced as part of the first round.
	Starting 2017	Networking Event held.	
	Starting 2017	Entrepreneur Bootcamp held.	
	2018	Awards from second solicitation are contracted.	

Table 68. Key Milestones for Cleantech Startup Growth Ignition Grants

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Formal Voice of Customer exercise is completed.	Customer Discovery/Market Validation exercise is ongoing.
	2017	Solicitation launched.	Solicitation is currently under development. Expected release date is late summer 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 2017.

Table 69. Key Milestones for Cleantech Startup Growth Geographic Coverage

Complete	Time Frame	Milestone	Explanation of Progress
✓	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 in negotiation and should be in place by the end of May.
	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 70. NextGen HVAC Initiative Results ^{125, 126}

Approval Date: August 17, 2016

Anticipated Launch Date: NextGen HVAC Technology Challenge (PON 3519) to be released in May 2017.

Innovation & Research Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	-	-	-	-	-	\$5.00	-	\$75.0	-
Participants	Participants	-	-	-	-	-	1	-	25	-

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

¹²⁵ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹²⁶ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 71. Key Milestones for NextGen HVAC

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	Issue RFI, evaluate and establish technology challenge areas and targets.	RFI issued January 13, 2017. Informational Webinar held on February 1, 2017 with approximately 60 attendees. Thirty-two individual responses received on February 22, 2017.
	2016	Issue first Technology Challenge.	First NextGen HVAC Technology Challenge developed and scheduled to be released in May 2017.
	2017	Contract projects from first Technology Challenge.	Projects from first Challenge to be selected and contracted by third and fourth quarter 2017 respectively.
	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 72. Electric Vehicles Innovation Initiative Results^{127, 128}

Approval Date: August 17, 2016

Anticipated Launch Date: Q2 2017

Innovation & Research Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
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	-	-	-	-	-	\$1.95	-	\$31.7	-
Participants	Participants	-	-	-	-	-	4	-	33	-

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

¹²⁷ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹²⁸ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 73. 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 74. Manufacturing Corps^{129, 130}

Approval Date: February 14, 2017

Anticipated Launch Date: Q2 2017

Innovation & Research Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	-	-	-	-	-	\$5.00	-	\$60.00	-
Participants	Participants	-	-	-	-	-	25	-	450	-

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

¹²⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹³⁰ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 75. Key Milestones for Manufacturing Corps

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	RFQ launched to identify manufacturing experts.	In development, expect to launch Q2 2017.
	2017	Competitive solicitation launched for pilot sites.	In development, expect to launch Q2 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 76. Energy Related Environmental Research ^{131, 132}

Approval Date: January 26, 2017

Launch Date: January 27, 2017

Innovation & Research Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 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	-	-	-	-	-	\$0.66	-	\$7.50	-
Participants	Participants	-	-	-	-	-	9	-	100	-

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

¹³¹ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹³² Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 77. 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 Q2 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 78. Renewables Optimization^{133, 134}

Approval Date: March 3, 2017

Anticipated Launch Date: May 2017

Innovation & Research Initiative Specific Results	Units	Completed Projects through December 31, 2016 with Adjustments	Completed Projects through 1/1/17-3/31/17	Total Completed Projects through March 31, 2017	Current Pipeline Through March 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q1 2017	% of Cumulative Current Target Through Q1 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
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	-	-	-	-	-	\$2.28	-	\$165.00	-
Participants	Participants	-	-	-	-	-	2	-	118	-

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

¹³³ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

¹³⁴ Cumulative Current Target Through Q1 2017 represents 100% of the 2016 annual target plus 25% of the 2017 annual target. However, actual progress may not be equal each quarter of a calendar year.

Table 79. Key Milestones for Renewables Optimization

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Issue first Competitive Solicitation.	The solicitation is expected to be issued by mid-May 2017. The concept papers are due by mid-June 2017. Projects are expected to be contracted by October 2017.
	2017	Contract projects from first Competitive Solicitation.	
	2017	Review portfolio of activities, solicit market input and reassess technology challenges 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 challenges 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 challenges areas and targets.	
	2019	Issue fourth Competitive Solicitation.	

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