



NYSERDA

Clean Energy Fund Quarterly Performance Report through December 2017

Final Report

February 2018

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 December 31, 2017**

Final Report

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Albany, NY

February 2018

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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
- Deliver \$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 to explain the following:

- 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

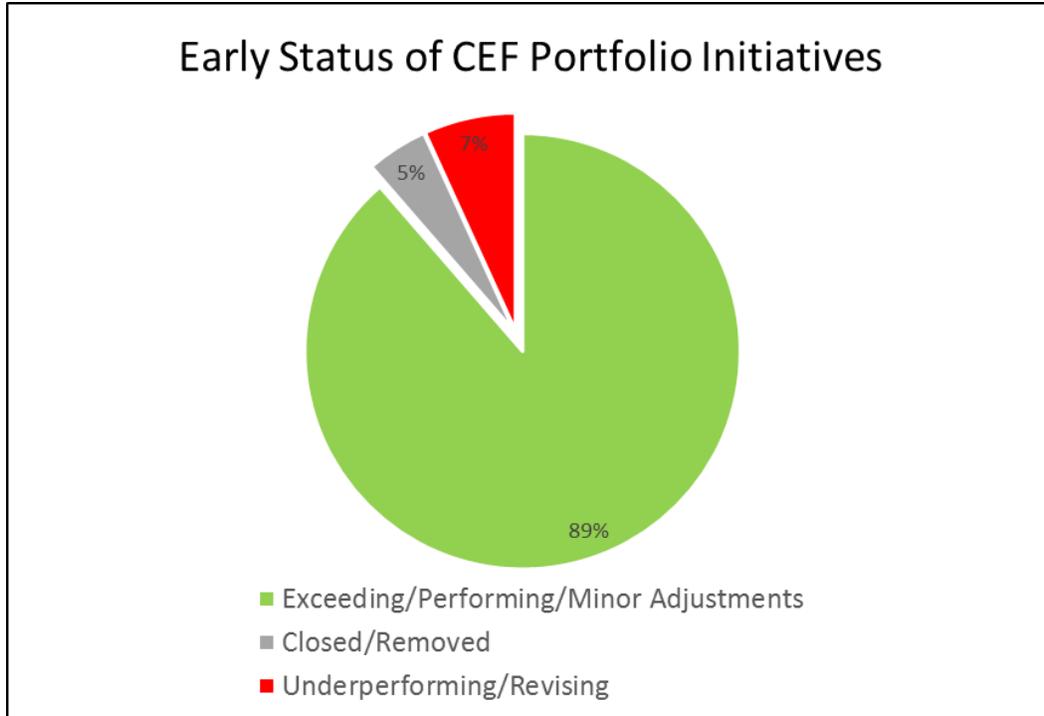
This report represents quarterly and cumulative activity through December 31, 2017 and achievements of all programs approved prior to and during the reporting period. This includes the transition programs included in the Resource Acquisition Transition Chapter as well as new initiatives in the Market Development and Innovation and Research Chapters. See Appendix A for the Department of Public Service (DPS) case number/reference and effective date of these initiatives.

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.

Through December 2017, 56 Market Development (MD) and Innovation and Research (I&R) initiatives were developed by NYSERDA and filed with the Commission, and 43 of these initiatives have launched. In these portfolios, NYSERDA included the introduction of 31 new initiatives intended to drive greater impact. In the early years of the CEF, these new initiatives will operate alongside 12 Resource Acquisition Transition initiatives—a purposeful portfolio mix intended to introduce a greater proportion of market-enabling activities without disrupting existing market momentum that may be based on more traditional NYSERDA and utility approaches.

Figure 1 shows the majority (89%) of launched initiatives are progressing well and have either exceeded expectations, maintained their original plans, or moved forward with minor changes. As information is gained, NYSERDA modified several of these largely successful initiatives to optimally align them with market needs. A smaller percentage of initiatives are undergoing more substantial adjustment (7%) or have been closed/removed due to lack of performance (5%). Initiatives that have been closed generally experienced lower customer demand than expected and NYSERDA is redirecting funds to better meet market needs.

Figure 1. Early Status of CEF Portfolio Initiatives



The MD and I&R portfolios are strongly contributing toward realization of the total CEF 10-year minimum goals which will also be supported by achievement in the NY-Sun and NY Green Bank portfolios.² The deployment of MD and I&R funds is well aligned with progress at this time, as depicted in Figure 2,³ where cumulative progress represents committed dollars and associated impact and expected benefits equals remaining “programmed” dollars and associated benefits.

- Achievement of the energy efficiency MWh and MMBtu goals that are core to the MD portfolio and represent “no backsliding from EEPS” is on track. MMBtu expected benefits are already significantly greater than the minimum projected benefits due to the expansion into all fuels as the State Energy Plan goals require and the significant potential that exists in fuels, especially in the areas of industrial, low-income, and electric vehicles.
- Carbon dioxide equivalent (CO₂e) emission reduction progress is excellent at this time, and NYSERDA is well-positioned to meet the overall goal for the CEF. The CEF’s fuel-neutral approach is a large driver of success on the CO₂e metric.⁴
- Performance of the customer (participant) bill savings⁵ metric is somewhat low at this time, but is not yet inclusive of estimated indirect bill savings projected to result from the new MD initiatives, which will occur later in the 10-year time frame. NYSERDA’s current expectation is that this metric will be attained over the life of the fund.
- Lifetime private investment benefits are generally on track at this time.

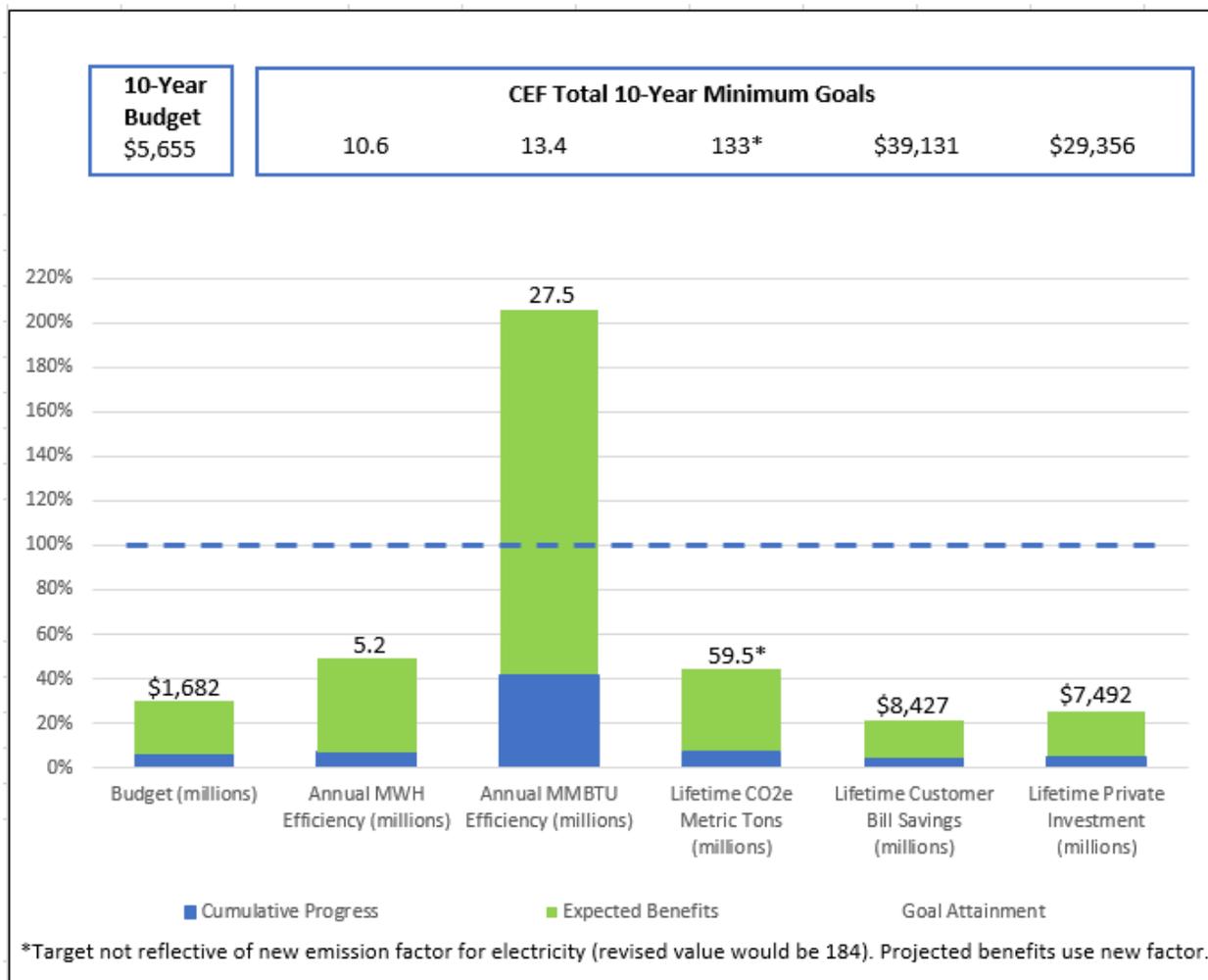
² NY-Sun and NY Green Bank investments and benefits are reported in separate quarterly reports available on NYSERDA’s website.

³ The 88 million MWh renewable energy goal is not shown in Figure 2 as it is mainly supported by NY-Sun.

⁴ NYSERDA’s electricity emission reduction factor of 1,160 pounds CO₂e/MWh is derived using the marginal emission-rate analysis for CO₂ from “Appendix: The Benefits and Costs of Net Energy Metering in New York” Figure 28, and applying a line loss factor of 7.2%.
<http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterSeq=49636&MNO=15-E-0703>

⁵ Customer Bill Savings are calculated as direct energy bill savings realized by customers participating in NYSERDA’s programs.

Figure 2. CEF Market Development and Innovation & Research Expected Investment and Benefits Contribution Toward 10-Year Minimum Goals as of December 31, 2017 (millions)⁶



A high-level summary of the progress of each initiative and offerings within the initiatives as applicable is shown in Tables 1-3. These tables display key dates, assessment of benefits metrics progress against current targets and, as warranted, an explanation of progress towards benefit metrics and/or program implementation milestones.

⁶ The 10-year Budget and 10-year Minimum Goals in this figure are reflective of all four CEF portfolios – Market Development, Innovation and Research, NY-Sun, and NY Green Bank. The 88 million MWh renewable energy goal is not depicted here as it is mainly supported by NY-Sun. Progress shown is only for Market Development and Innovation & Research.

Table 1. Summary of Initiative/Offering Progress – Resource Acquisition Transition

Initiative: Offering (Tables)	Key Dates	Metrics Progress vs. Targets ^a	Explanation of Progress
Commercial Resource Acquisition Transition and FlexTech Initiative (Table 9)	Approval Date: February 29, 2016 Launch Date: March 1, 2016 Refiling Approval Date: July 17, 2017	Lagging	The Commercial Implementation Program closed at the end of April 2017. There were eight approved projects and the targets set for this program component will not be met. NYSERDA is in the process of assessing whether the FlexTech component will attain the combined goal or if new forecasts will need to be developed.
Industrial Resource Acquisition Transition Initiative (Table 10)	Approval Date: February 29, 2016 Launch Date: March 1, 2016 Refiling Approval Date: July 17, 2017	On Track	
Agriculture Resource Acquisition Transition Initiative (Table 11)	Approval Date: February 29, 2016 Launch Date: March 1, 2016 Refiling Approval Date: July 17, 2017	Exceeding	
Multifamily Market-Rate Resource Acquisition Transition Initiative (Table 12)	Approval Date: February 29, 2016 Launch Date: May 19, 2016 Refiling Approval Date: July 17, 2017	Lagging	The program received less applications, but with more units than anticipated, which explains why progress is greatly exceeding the participant target. However, the energy conservation measures implemented were low-cost and yielded less savings than initially projected at the program design; therefore, relative progress against other benefit metrics is lagging.
Single-Family Market-Rate Resource Acquisition Initiative (Table 13)	Approval Date: February 29, 2016 Launch Date: March 1, 2016 Refiling Approval Date: July 17, 2017	On Track	
Commercial New Construction Resource Acquisition Transition Initiative (Table 14)	Approval Date: February 29, 2016 Launch Date: March 1, 2016 Refiling Approval Date: July 17, 2017	Exceeding	
Low-Rise New Construction Resource Acquisition Transition Initiative: Market-Rate (Table 15)	Approval Date: February 29, 2016 Launch Date: March 1, 2016 Refiling Approval Date: July 17, 2017	Exceeding	

Table 1 continued

Initiative: Offering (Tables)	Key Dates	Metrics Progress vs. Targets ^a	Explanation of Progress
Low-Rise New Construction Resource Acquisition Transition Initiative: Low- to Moderate-Income (Table 16)	Approval Date: February 29, 2016 Launch Date: March 1, 2016 Refiling Approval Date: July 17, 2017	On Track	
Multifamily New Construction Resource Acquisition Transition Initiative: Market-Rate (Table 17)	Approval Date: February 29, 2016 Launch Date: August 8, 2016 Refiling Approval Date: July 17, 2017	Lagging	Performance against metrics targets is lagging currently, but program participation in is expected to increase based on the reauthorization of the New York City Property Tax abatement. Market engagement indicates the modifications to program, which were approved in July 2017 and led to reissuance of the solicitation in November 2017, should also lead to increased participation and closer alignment with targets by Q3 2018.
Multifamily New Construction Resource Acquisition Transition Initiative: Low- to Moderate-Income (Table 18)	Approval Date: February 29, 2016 Launch Date: August 8, 2016 Refiling Approval Date: July 17, 2017	Lagging	Performance against metrics targets is lagging currently, but program participation in is expected to increase based on the reauthorization of the New York City Property Tax abatement. Market engagement indicates the modifications to program, which were approved in July 2017 and led to reissuance of the solicitation in November 2017, should also lead to increased participation and closer alignment with targets by Q3 2018.
Anaerobic Digesters Resource Acquisition Transition Initiative (Table 19)	Approval Date: February 29, 2016 Launch Date: July 8, 2016	Lagging	A delay in launching 2017 activities caused the lag in performance. Progress is expected to better align with expectations after proposals are accepted in early Q2 2018.
Small Wind Resource Acquisition Transition Initiative (Table 20)	Approval Date: February 29, 2016 Launch Date: March 1, 2016	Lagging	The program has not achieved some targets due to smaller sized projects and fewer developers than anticipated.
Solar Thermal Resource Acquisition Transition Initiative (Table 21)	Approval Date: February 29, 2016 Launch Date: March 1, 2016 Refiling Approval Date: July 17, 2017	On Track	

Table 1 continued

Initiative: Offering (Tables)	Key Dates	Metrics Progress vs. Targets ^a	Explanation of Progress
Combined Heat and Power (CHP) Resource Acquisition Transition Initiative (Table 22)	Approval Date: February 29, 2016 Launch Date: March 1, 2016	On Track	
^a Initiative progress indicator takes into account current cumulative progress of all relevant metrics vs targets. Exceeding means all metrics (with the allowed exception of two) are >100% of progress vs target. On Track means all metrics (with the allowed exception of two) are >80% of progress vs. target. Lagging means all metrics (with the allowed exception of two) are <80% of progress vs. target. Mixed means more than two metrics are < 50% and > 100% of progress vs. target. Where the same metric has both an annual and lifetime value, it is counted as one.			

Table 2. Summary of Initiative/Offering Progress – Market Development

Initiative: Offering (Tables)	Key Dates	Metrics Progress vs. Targets ^a	Explanation of Progress
Real Estate Tenant Initiative (Tables 24-25)	Approval Date: May 23, 2016 Launch Date: July 19, 2016 Refiling Approval Date: July 17, 2017	Lagging	Real Estate Tenant initiative progress is lagging in comparison to targets. Program was revised in Q3 2017 and there has since been a significant increase in projects. A total of 76 sites are now in program, with 80% of these sites joining program in Q4 2017. The initiative is making progress toward its multi-year implementation milestones.
Energy Management Initiative (Table 26-27)	Approval Date: May 23, 2016 Launch Date: June 20, 2016 Refiling Approval Date: July 17, 2017	Mixed	The initiative made good progress against its current implementation milestones. The program is mostly on track with metrics performance, but is lagging performance for private investment and REM building participants.
Reforming the Energy Vision (REV) Campus Challenge Initiative (Tables 28-29)	Approval Date: May 23, 2016 Launch Date: December 21, 2016 Refiling Approval Date: July 17, 2017	Lagging	The REV Campus Challenge initiative is exceeding its targeted membership goal (94 out of projected 83), but is lagging its energy savings targets (65%). NYSERDA is reviewing available data on REV Campus Challenge member activity to more accurately and completely account for energy savings. The initiative is making progress toward its multi-year implementation milestones.
K-12 Schools Initiative (Tables 30-31)	Approval Date: December 1, 2017 Anticipated Launch Date: Q2 2018	n/a	

Table 2 continued

Initiative: Offering (Tables)	Key Dates	Metrics Progress vs. Targets ^a	Explanation of Progress
Continuous Energy Improvement Initiative: On-Site Energy Manager Initiative (Tables 32-33)	Approval Date: May 23, 2016 Launch Date: September 12, 2016 Refiling Approval Date: July 17, 2017	Exceeding	The initiative is making progress toward its multi-year implementation milestones. Initial energy savings projections at pilot facilities are exceeding expectations.
Continuous Energy Improvement Initiative: Strategic Energy Management Initiative (Tables 34-35)	Approval Date: May 23, 2016 Launch Date: November 22, 2016 Refiling Approval Date: July 17, 2017	Lagging	Lag in completion of the milestone due to delayed launch of the program as well as longer than anticipated participant commitment. The lag in metrics is due to the timing of contracting for development of strategic energy management wastewater cohorts.
Continuous Energy Improvement Initiative: Energy Management Information Systems Initiative (Tables 36-37)	Approval Date: June 23, 2017 Launch Date: November 14, 2017	n/a	The initiative made good progress against its current implementation milestones.
Clean Energy Communities Initiative (Tables 38-39)	Approval Date: May 23, 2016 Launch Date: August 3, 2016 Refiling Approval Date: July 17, 2017	Mixed	The initiative has made good progress against its current implementation milestones. The lag in metrics progress vs. targets is primarily due to timing of contracting with designated communities.
Community Energy Engagement Initiative (Tables 40-41)	Approval Date: March 27, 2017 Launch Date: October 10, 2017	On Track	The initiative made good progress against its current implementation milestones.
Offshore Wind Master Plan Initiative (Tables 42-43)	Approval Date: May 23, 2016 Launch Date: September 15, 2016	n/a	The initiative made good progress against its current implementation milestones.
Offshore Wind Pre-Development Initiative (Tables 44-45)	Approval Date: May 23, 2016 Launch Date: December 12, 2016	n/a	The initiative made good progress against its current implementation milestones.

Table 2 continued

Initiative: Offering (Tables)	Key Dates	Metrics Progress vs. Targets ^a	Explanation of Progress
REV Connect Initiative (Tables 46-47)	Approval Date: May 23, 2016 Launch Date: August 9, 2016 Refiling Approval Date: July 17, 2017	Lagging	The initiative made good progress against its current implementation milestones, but metrics progress is behind target for the program's singular metric of private investment. Private investment is defined as financial support from utilities and private sector companies for REV Connect functions. As users of the REV Connect platform identify which functions create greatest value for their organization, this may prompt additional private investment to support high-value functions.
Reducing Barriers to Energy Storage Deployment Initiative (Tables 48-49)	Approval Date: August 17, 2016 Launch Date: November 7, 2016 Refiling Approval Date: July 17, 2017	Lagging	The initiative is making good progress against its implementation milestones; however, technical assistance contractors and value stacking pilot applications did not begin in earnest until mid-2017, so some full year results will lag milestones in the near term, but will be made up over time.
Electric Vehicles Initiative: EV Rebate (Tables 50-51)	Approval Date: August 17, 2016 Launch Date: March 21, 2017 Refiling Approval Date: July 17, 2017	Lagging	All current milestones have been met. Lag in metrics progress is due to greater than anticipated EV purchases occurring in the market without leveraging the available rebate.
Greenhouse Lighting and Systems Engineering (GLASE) Initiative (Tables 52-53)	Approval Date: September 15, 2016 Launch Date: January 1, 2017	On Track	The initiative made good progress against its current implementation milestones.
Advancing Agricultural Energy Technologies (Tables 54-55)	Approval Date: December 1, 2017 Anticipated Launch Date: Q4 2018	n/a	New Initiative. Scheduled to launch Q4 2018.
RetrofitNY Initiative (Tables 56-57)	Approval Date: August 31, 2016 Launch Date: April 4, 2017	Lagging	The initiative made good progress against its current implementation milestones. The first solicitation initially anticipated to release in 2017 was delayed until the first quarter of 2018.
REVitalize Initiative (Tables 58-59)	Approval Date: August 31, 2016 Launch Date: June 27, 2017	Lagging	A delay in the launch of the solicitation caused a lag in metric performance against current targets and milestones.
Low-Income Forum on Energy Initiative (Tables 60-61)	Approval Date: August 31, 2016 Launch Date: August 31, 2017	Exceeding	The initiative made good progress against its current implementation milestones.
Healthy Homes Feasibility Study Initiative (Table 62)	Approval Date: August 31, 2016 Launch Date: January 20, 2017	n/a	Progress against milestones is lagging due to difficulty obtaining the data required for completion of the study.

Table 2 continued

Initiative: Offering (Tables)	Key Dates	Metrics Progress vs. Targets ^a	Explanation of Progress
Low- to Moderate-Income Single-Family Initiative: Low-Income (Tables 63,65)	Approval Date: February 29, 2016 Launch Date: March 1, 2016 Refiling Approval Date: July 17, 2017	On Track	The Initiative made good progress against its current implementation milestones.
Low- to Moderate-Income Single-Family Initiative: Moderate-Income (Tables -64-65)	Approval Date: February 29, 2016 Launch Date: March 1, 2016 Refiling Approval Date: July 17, 2017	On Track	The initiative was redesigned and relaunched in July 2017. The initiative made good progress against its current implementation milestones.
Low- to Moderate-Income Multifamily Initiative (Tables 66-67)	Approval Date: February 29, 2016 Launch Date: May 19, 2016 Refiling Approval Date: July 17, 2017	Mixed	The initiative made good progress against its current implementation milestones. The program was updated in July 2017 based on market feedback. Energy efficiency providers confirmed strong interest and are working actively to bring new projects into the program, which is expected to improve metrics progress.
Low Income Community Solar Initiative (Table 68)	Approval Date: December 1, 2017 Anticipated Launch Date: Q1 2018	n/a	New initiative. On schedule to launch Q2 2018.
Industry Partnerships Initiative (Tables 69-70)	Approval Date: September 15, 2016 Launch Date: January 13, 2017 Refiling Approval Date: July 17, 2017	On Track	The initiative made good progress against its multi-year implementation milestones.
Heat Pumps and Solar Thermal Initiative (Tables 71-72)	Approval Date: May 16, 2017 Launch Date: May 30, 2017	Exceeding	The initiative made good progress against its current implementation milestones.
Renewable Heat NY Initiative (Tables 73-74)	Approval Date: May 16, 2017 Launch Date: May 9, 2017	Mixed	The initiative made good progress against its current implementation milestones. The program is mostly on track with metrics performance, but is lagging performance for private investment and participants as Non-CEF funding being exhausted prior to using CEF funds.
Underutilized Products Support Initiative (Tables 75-76)	Approval Date: May 16, 2017 Launch Date: August 17, 2017	Exceeding	The initiative made good progress against its current implementation milestones.
EE Soft Cost Challenge Initiative (Tables 77-78)	Approval Date: July 19, 2017 Anticipated Launch Date: Q1 2018	n/a	Anticipated launch Q1 2018.

Table 2 continued

Initiative: Offering (Tables)	Key Dates	Metrics Progress vs. Targets ^a	Explanation of Progress
Technical Services Initiative (Tables 79-80)	Approval Date: October 3, 2017 Launch Date: November 9, 2017	n/a	Initiative launched; however, no progress against benefits or milestones is expected until 2018.
Clean Energy Advanced Market Performance (AMP) Challenge Initiative (Tables 81-82)	Approval Date: December 1, 2017 Anticipated Launch Date: Q1 2018	n/a	New Initiative. On schedule to launch Q1 2018.
Clean Energy Siting and Soft Cost Reduction Initiative (Tables 83-84)	Approval Date: December 1, 2017 Anticipated Launch Date: Q1 2018	n/a	New Initiative. On schedule to launch Q1 2018.
Code to Zero Initiative (Tables 85-86)	Approval Date: December 1, 2017 Anticipated Launch Date: Q4 2018	n/a	New Initiative. On schedule to launch Q4 2018.
Fuel Cells Initiative (Tables 87-88)	Approval Date: December 1, 2017 Anticipated Launch Date: Q2 2018	n/a	New Initiative. On schedule to launch Q2 2018.
New Construction Market Rate Initiative (Tables 89-90)	Approval Date: December 1, 2017 Anticipated Launch Date: Q2 2018	n/a	New Initiative. On schedule to launch Q2 2018.
Low Income New Construction Initiative (Tables 91-92)	Approval Date: December 1, 2017 Anticipated Launch Date: Q2 2018	n/a	New Initiative. On schedule to launch Q2 2018.
Engaging New Markets Initiative (Tables 93-94)	Approval Date: December 1, 2017 Anticipated Launch Date: Q3 2018	n/a	New Initiative On schedule to launch Q3 2018.
^a Initiative progress indicator takes into account current cumulative progress of all relevant metrics vs. targets. Exceeding means all metrics (with the allowed exception of two) are >100% of progress vs target. On Track means all metrics (with the allowed exception of two) are >80% of progress vs. target. Lagging means all metrics (with the allowed exception of two) are <80% of progress vs. target. Mixed means more than two metrics are < 50% and > 100% of progress vs. target Where the same metric has both an annual and lifetime value, it is counted as one .			

Table 3. Summary of Initiative/Offering Progress – Innovation and Research

Initiative: Offering (Tables)	Key Dates	Metrics Progress vs. Targets ^a	Explanation of Progress
Distributed Energy Resource (DER) Interconnection Initiative (Tables 95-96)	Approval Date: May 23, 2016 Launch Date: October 20, 2016	Mixed	The initiative made good progress against its current implementation milestones and is exceeding its metrics targets for participants, but lagging the private investment target.
High-Performing Grid Modernization Initiative (Tables 97-98)	Approval Date: May 23, 2016 Launch Date: September 16, 2016 Refiling Approval Date: July 17, 2017	On Track	The initiative made good progress against its current implementation milestones.
Power Electronics Manufacturing Initiative (Tables 99-100)	Approval Date: July 19, 2017 Launch Date: October 13, 2017	Exceeding	A delay in contracting has caused a lag in the progress of the milestones.
Cleantech Startup Growth Initiative (Tables 101-108)	Approval Date: May 23, 2016 Launch Date: October 12, 2016 Revised Approval Date: December 1, 2017	Mixed	The initiative made good progress against its current implementation milestones. The solicitation for Ignition Grants that was originally planned to launch in 2017 is now expected to be released in Q1 2018. For the Geographic Coverage activity, there are no entrepreneurship training programs planned at this time due to feedback from market participants that it is not currently needed. The lag in participant progress is due to the fact that metrics are being collected for active initiatives every six months (January 1 through June 30 and July 1 through December 31, respectively). The first full set of metrics for Incubators are expected to be received and finalized in February 2018.
Manufacturing Corps Initiative (Tables 109-110)	Approval Date: February 13, 2017 Launch Date: June 29, 2017 Revised Approval Date: December 1, 2017	n/a	The initiative has made good progress against its current implementation milestones.
Novel Business Models and Offerings Initiative (Tables 111-112)	Approval Date: December 1, 2017 Anticipated Launch Date: Q1 2018	n/a	New Initiative. On schedule to launch Q1 2018.
NextGen HVAC Initiative (Tables 113-114)	Approval Date: August 17, 2016 Launch Date: June 28, 2017	Lagging	A delay in the launch of the solicitation has caused a lag in metric performance against current targets and milestones.

Table 3 continued

Initiative: Offering (Tables)	Key Dates	Metrics Progress vs. Targets ^a	Explanation of Progress
Electric Vehicles Initiative: EV Innovation (Tables 115-116)	Approval Date: August 17, 2016 Launch Date: September 15, 2017	Lagging	The initiative has made good progress against its current implementation milestones. A delay in the launch of the program has caused a lag in metric performance against current targets.
Public Transportation and Electrified Rail Initiative (Tables 117-118)	Approval Date: October 3, 2017 Anticipated Launch Date: Q2 2018	n/a	New Initiative. On schedule to launch Q2 2018.
Energy Related Environmental Research Initiative (Tables 119-120)	Approval Date: February 13, 2017 Launch Date: February 15, 2017	Lagging	The initiative has made good progress against its current implementation milestones. The program is currently lagging private investment and participant goals, however the majority of the budgeted funds are designated for long-term monitoring projects which expired at the end of 2017. The goal is to renew and contract these monitoring activities in the coming months and achieve current targets by the end of Q1 2018.
Energy Storage Tehnology and Product Development Initiative (Tables 121-122)	Approval Date: March 27, 2017 Launch Date: June 21, 2017	Lagging	The initiative has made good progress against its current implementation milestones. A delay in contracting has caused a lag in metric performance against against current targets.
^a Initiative progress indicator takes into account current cumulative progress of all relevant metrics vs. targets. Exceeding means all metrics (with the allowed exception of one) are >100% of progress vs target. On Track means all metrics (with the allowed exception of one) are >80% of progress vs. target. Lagging means all metrics (with the allowed exception of one) are <80% of progress vs target. Mixed means more than one metric is < 50% and > 100% of progress vs. target. Where the same metric has both an annual and lifetime value, it is counted as one.			

Table 4 shows the CEF cumulative progress (committed benefits) to date against the 10-year minimum projected goals of the entire CEF, inclusive of all four portfolios. The CEF MD and I&R portfolios will contribute significantly to these minimum projected goals, as will the NY-Sun and NY Green Bank portfolios, for which progress is presented in separate filings.

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

Table 4. CEF Minimum Projected Goals 2016–2025 and Progress to Date, Commitment Basis^{7,8,9,10}

		Cumulative Annual Benefits		Lifetime Benefits	
		Cumulative Progress through December 31, 2017	Minimum Projected Goals 2016-2025	Cumulative Progress through December, 2017	Minimum Projected Goals 2016-2025
Energy Efficiency	MWh	749,556	10,600,000	10,650,317	*
	MMBtu	5,580,754	13,400,000	87,359,887	*
	MW	57	*	57	*
Renewable Energy	MWh	23,650	*	324,197	88,000,000
	MW	13	*	13	*
CO2 Emission Reductions (metric tons)		671,563	*	9,938,130	133,000,000
Customer Bill Savings (\$ million)		\$127.04	*	\$1,871.89	\$39,131
Private Investment (\$ million)		\$1,536.38	*	\$1,536.38	\$29,356

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

⁷ 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.

⁸ Bill savings represent savings for participants of NYSERDA programs.

⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected, as it will take time for the benefits to be realized.

¹⁰ 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 ([nyserd.ny.gov/About/Publications/EA-Reports-and-Studies/Energy-Statistics](https://www.nyserd.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 5. Market Development and Innovation and Research Portfolio Level Budgets and Spending¹¹

Initiative	PSC Ordered Program Budget Funds ^a	Budget Approved as of September 30, 2017 ^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	\$1,171,739,573	49%	\$103,623,965	\$78,531,335	\$77,366,101	\$259,521,400	22%	\$912,218,172
Innovation & Research									
Program Funds									
NYS Cost Recovery Fee	\$629,833,404	\$327,502,031	52%	\$5,436,127	\$30,569,219	\$8,961,471	\$44,966,817	14%	\$282,535,214
Administration	\$273,601,311	\$134,583,080	49%	\$39,855,237	\$509,313	\$31,223	\$40,395,773	30%	\$94,187,307
Evaluation	\$130,200,000	\$48,463,825	37%	\$1,309,130	\$2,516,232	\$7,000	\$3,832,361	8%	\$44,631,464
Total	\$3,420,395,339	\$1,682,288,509	49%	\$150,224,458	\$112,126,099	\$86,365,794	\$348,716,352	21%	\$1,333,572,157

- ^a CEF Order authorized CEF funding.
- ^b Funds approved by DPS as of December 31, 2017.
- ^c 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 Sum of Expended Funds, Open Encumbrances, and Contract Pre-Encumbrances.
- ^h Percentage of the committed budget.
- ⁱ Difference between Budget Approved Funds and Committed Funds.

¹¹ NYSERDA pre-encumbered an additional \$31.4 million to solicitations with upcoming due dates that are not shown in Table 3. When including these funds, NYSERDA committed 26% 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 6. Market Development, Innovation, and Research Portfolio Committed Benefits Progress to Date – Annual^{12,13,14,15}

Initiative	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17-12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Annual Target Through Q4 2017	% of Cumulative Annual Target Through Q4 2017	Total Cumulative Annual Target through 2025	% of Total Cumulative Annual Target through 2025
Market Development									
Energy Efficiency (MWh)	54,539	14,852	69,391	680,166	749,556	852,900	88%	3,041,000	25%
Energy Efficiency (MMBtu)	666,721	212,483	879,204	4,701,550	5,580,754	5,434,000	103%	19,820,000	28%
Energy Efficiency (MW)	0.6	1	1	56	57	*	-	*	-
Renewable Energy (MWh)	13,794	1,250	15,044	8,606	23,650	*	-	*	-
Renewable Energy (MW)	11	1	12	1	13	*	-	*	-
CO2e Reductions (metric tons)	70,320	17,517	87,836	583,726	671,563	*	-	*	-
Customer Bill Savings (\$ million)	\$17.94	\$5.23	\$23.17	\$103.87	\$127.04	*	-	*	-
Private Investment (\$ million)	\$146.56	\$78.06	\$224.63	\$1,028.71	\$1,253.33	*	-	*	-
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)	-	-	-	\$283.04	\$283.04	*	-	*	-
Total Energy Efficiency (MWh)	54,539	14,852	69,391	680,166	749,556				
Total Energy Efficiency (MMBtu)	666,721	212,483	879,204	4,701,550	5,580,754				
Total Energy Efficiency (MW)	0.6	0.6	1	56	57				
Total Renewable Energy (MWh)	13,794	1,250	15,044	8,606	23,650				
Total Renewable Energy (MW)	11	1	12	1	13				
Total CO2e Reductions (metric tons)	70,320	17,517	87,836	583,726	671,563				
Total Customer Bill Savings (\$ million)	\$17.94	\$5.23	\$23.17	\$103.87	\$127.04				
Total Private Investment (\$ million)	\$146.56	\$78.06	\$224.63	\$1,311.75	\$1,536.38				

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

¹² Targets and benefits include initiatives filed and approved through December 31, 2017.

¹³ This report reflects direct benefits from programs. Indirect benefits are not reflected, as it will take time for the benefits to be realized.

¹⁴ Completed projects through September 30, 2017 contains adjustments from programs due to lagged data and QA/QC.

¹⁵ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 7. Market Development and Innovation and Research Portfolio Committed Benefits Progress to Date – Lifetime^{16,17,18,19}

Initiative	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17-12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Lifetime Target Through Q4 2017	% of Cumulative Lifetime Target Through Q4 2017	Total Cumulative Lifetime Target through 2025	% of Total Cumulative Lifetime Target through 2025
Market Development									
Energy Efficiency (MWh)	829,628	229,816	1,059,444	9,590,873	10,650,317	*	-	*	-
Energy Efficiency (MMBtu)	13,116,157	3,526,535	16,642,692	70,717,195	87,359,887	*	-	*	-
Renewable Energy (MWh)	210,319	19,737	230,056	94,141	324,197	735,100	44%	2,648,000	12%
CO2e Reductions (metric tons)	1,250,573	292,007	1,542,579	8,395,551	9,938,130	11,822,000	84%	41,920,000	24%
Customer Bill Savings (\$ million)	\$305.52	\$80.55	\$386.07	\$1,485.82	\$1,871.89	\$2,083.20	90%	\$8,427.00	22%
Private Investment (\$ million)	\$146.56	\$78.06	\$224.63	\$1,028.71	\$1,253.33	\$1,233.00	102%	\$6,105.00	21%
Innovation and Research									
Energy Efficiency (MWh)	-	-	-	-	-	*	-	*	-
Energy Efficiency (MMBtu)	-	-	-	-	-	*	-	*	-
Renewable Energy (MWh)	-	-	-	-	-	*	-	*	-
CO2e Reductions (metric tons)	-	-	-	-	-	*	-	*	-
Customer Bill Savings (\$ million)	-	-	-	-	-	*	-	*	-
Private Investment (\$ million)	-	-	-	\$283.04	\$283.04	\$270.35	105%	\$1,387.00	20%
Total Energy Efficiency (MWh)	829,628	229,816	1,059,444	9,590,873	10,650,317	-	-	-	-
Total Energy Efficiency (MMBtu)	13,116,157	3,526,535	16,642,692	70,717,195	87,359,887	-	-	-	-
Total Renewable Energy (MWh)	210,319	19,737	230,056	94,141	324,197	-	-	-	-
Total CO2e Reductions (metric tons)	1,250,573	292,007	1,542,579	8,395,551	9,938,130	-	-	-	-
Total Customer Bill Savings (\$ million)	\$305.52	\$80.55	\$386.07	\$1,485.82	\$1,871.89	-	-	-	-
Total Private Investment (\$ million)	\$146.56	\$78.06	\$224.63	\$1,311.75	\$1,536.38	-	-	-	-

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

¹⁶ Targets and benefits include initiatives filed and approved through December 31, 2017.

¹⁷ This report reflects direct benefits from programs. Indirect benefits are not reflected, as it will take time for the benefits to be realized.

¹⁸ Completed projects through September 30, 2017 contain adjustments from programs due to lagged data and QA/QC.

¹⁹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

2 Resource Acquisition Transition Initiative Specific Results

Table 8. Resource Acquisition Transition Initiative Level Budgets and Spending²⁰

Initiative	Budget Approved as of December 31, 2017 ^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	\$26,392,500	\$1,655,871	\$2,640,336	\$1,079,679	\$5,375,886	20%	\$21,016,614
Industrial	\$69,562,932	\$4,048,467	\$13,643,114	\$10,826,073	\$28,517,655	41%	\$41,045,277
Agriculture	\$3,600,000	\$2,098,634	\$470,230	\$416,855	\$2,985,719	83%	\$614,281
Multifamily Market Rate	\$156,628	\$124,281	\$32,005	\$342	\$156,628	100%	-
Single Family Market Rate	\$22,024,680	\$10,467,735	\$748,714	\$2,405,298	\$13,621,747	62%	\$8,402,933
Commercial New Construction	\$30,683,999	\$1,010,619	\$1,992,729	\$17,178,194	\$20,181,542	66%	\$10,502,457
Low Rise New Construction	\$13,324,000	\$1,572,724	\$3,507,920	\$764,750	\$5,845,394	44%	\$7,478,606
Multifamily New Construction	\$13,613,000	\$900,586	\$4,033,207	\$2,345,686	\$7,279,479	53%	\$6,333,521
Anaerobic Digesters	\$12,150,000	\$65,000	\$2,035,000	\$2,000,000	\$4,100,000	34%	\$8,050,000
Small Wind	\$6,090,000	\$1,664,418	\$852,105	-	\$2,516,523	41%	\$3,573,477
Solar Thermal	\$399,000	\$128,267	\$148,771	-	\$277,038	69%	\$121,962
Combined Heat & Power	\$48,550,000	\$3,139,824	\$10,657,490	\$13,094,094	\$26,891,407	55%	\$21,658,593
TOTAL	\$246,546,739	\$26,876,427	\$40,761,621	\$50,110,971	\$117,749,018	48%	\$128,797,721

^a Funds approved by the DPS as of December 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 Sum of Expended Funds, Open Encumbrances, and Contract Pre-Encumbrances.

^f Percentage of the committed budget.

^g Difference between Budget Approved Funds and Committed Funds.

²⁰ NYSERDA committed an additional \$5,218,340 to solicitations with upcoming due dates not shown in Table 6. When including these funds, NYSERDA committed 50% 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.

Table 9. Commercial Resource Acquisition Transition and FlexTech Initiative Results^{21,22}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	159	159	14,347	14,506	44,600	33%	109,600	13%
	MWh Lifetime	-	2,627	2,627	236,725	239,352	736,000	33%	1,809,000	13%
	MMBtu Annual	-	-	-	106,487	106,487	400,000	27%	980,000	11%
	MMBtu Lifetime	-	-	-	1,757,043	1,757,043	6,590,000	27%	16,170,000	11%
Renewable Energy	MW	-	0.4	0.4	0.2	0.6	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	84	84	13,210	13,294	46,460	29%	114,200	12%
Customer Bill Savings (millions)	Lifetime Tons	-	1,382	1,382	217,963	219,345	770,000	28%	1,891,000	12%
	Annual Dollars	-	\$0.03	\$0.03	\$2.53	\$2.56	\$10.03	26%	\$24.63	10%
Private Investment (millions)	Lifetime Dollars	-	\$0.42	\$0.42	\$41.79	\$42.21	\$165.80	25%	\$406.80	10%
	Dollars	-	\$0.17	\$0.17	\$3.60	\$3.77	\$43.60	9%	\$92.00	4%
Implementation Assistance	Participants	-	3	3	5	8	20	40%	20	40%
Technical Assistance		-	-	-	108	108	103	105%	320	34%

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

²¹ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

²² Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 10. Industrial Resource Acquisition Transition Initiative Results^{23,24,25}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	6,793	9,018	15,812	187,790	203,601	245,400	83%	421,700	48%
	MWh Lifetime	101,901	135,276	237,177	2,816,844	3,054,021	3,690,000	83%	6,325,000	48%
	MMBtu Annual	74,048	(3,049)	70,999	2,947,055	3,018,054	2,630,000	115%	3,586,000	84%
	MMBtu Lifetime	1,110,719	(45,736)	1,064,984	44,205,832	45,270,815	39,400,000	115%	53,790,000	84%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	7,420	4,587	12,007	300,023	312,030	378,000	83%	521,400	60%
Customer Bill Savings (millions)	Lifetime Tons	111,304	68,803	180,106	4,500,341	4,680,447	5,670,000	83%	7,821,000	60%
	Annual Dollars	\$1.28	\$0.97	\$2.25	\$34.46	\$36.71	\$40.80	90%	\$64.12	57%
Private Investment (millions)	Lifetime Dollars	\$19.20	\$14.58	\$33.77	\$516.89	\$550.66	\$611.00	90%	\$961.80	57%
	Dollars	\$8.72	\$5.70	\$14.42	\$645.78	\$660.20	\$333.00	198%	\$761.10	87%
IPE	Participants	20	11	31	110	141	154	92%	298	47%
Technical Assistance		-	-	-	35	35	180	19%	320	11%

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

²³ This report reflects direct benefits from programs. Indirect benefits are not reflected, as it will take time for the benefits to be realized.

²⁴ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

²⁵ Completed projects through September 30, 2017 contain adjustments due to lagged data and QA/QC.

Table 11. Agriculture Resource Acquisition Transition Initiative Results^{26,27,28,29}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	7,342	1,278	8,620	1,647	10,267	9,000	114%	14,000	73%
	MWh Lifetime	110,137	19,166	129,303	24,706	154,009	135,000	114%	210,000	73%
	MMBtu Annual	17,504	4,367	21,871	567	22,438	4,000	561%	7,000	321%
	MMBtu Lifetime	262,560	65,509	328,069	8,503	336,572	60,000	561%	105,000	321%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	810	52	862	-	862	*	-	*	-
	MWh Lifetime	12,152	775	12,927	-	12,927	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	4,290	700	4,989	867	5,856	5,000	117%	8,000	73%
Customer Bill Savings (millions)	Lifetime Tons	64,344	10,493	74,837	13,000	87,837	75,000	117%	120,000	73%
	Annual Dollars	\$1.41	\$0.23	\$1.64	\$0.28	\$1.93	\$1.34	144%	\$2.09	92%
Private Investment (millions)	Lifetime Dollars	\$21.16	\$3.45	\$24.61	\$4.27	\$28.88	\$20.15	143%	\$31.35	92%
	Dollars	\$8.44	\$1.42	\$9.85	-	\$9.85	\$8.05	122%	\$12.24	80%
Participants	Participants	399	108	507	80	587	503	117%	765	77%

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

²⁶ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

²⁷ Completed projects through September 30, 2017 contain adjustments due to lagged data and QA/QC.

²⁸ 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.

²⁹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 12. Multifamily Market-Rate Resource Acquisition Transition Initiative Results^{30,31}

Approval Date: February 29, 2016

Launch Date: May 19, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	29	29	41	70%	41	70%
	MWh Lifetime	-	-	-	428	428	617	69%	617	69%
	MMBtu Annual	36	-	36	4,188	4,224	9,871	43%	9,871	43%
	MMBtu Lifetime	546	-	546	62,820	63,366	148,100	43%	148,100	43%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	2	-	2	238	240	598	40%	598	40%
Customer Bill Savings (millions)	Lifetime Tons	29	-	29	3,565	3,594	8,967	40%	8,967	40%
	Annual Dollars	\$0.0002	-	\$0.0002	\$0.02	\$0.02	\$0.11	22%	\$0.11	22%
Private Investment (millions)	Lifetime Dollars	\$0.002	-	\$0.002	\$0.36	\$0.36	\$1.63	22%	\$1.63	22%
	Dollars	\$0.07	-	\$0.07	-	\$0.07	\$0.42	17%	\$0.42	17%
Participants	Participants	18	-	18	459	477	186	256%	186	256%

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

³⁰ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

³¹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 13. Single-Family Market-Rate Resource Acquisition Transition Initiative Results^{32,33,34}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	1,869	228	2,098	130	2,228	2,400	93%	3,504	64%
	MWh Lifetime	28,041	3,426	31,468	1,955	33,422	35,900	93%	52,550	64%
	MMBtu Annual	96,191	12,564	108,755	9,624	118,379	148,900	80%	230,700	51%
	MMBtu Lifetime	2,404,772	314,094	2,718,866	240,600	2,959,466	3,720,000	80%	5,766,000	51%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	6,927	899	7,826	657	8,483	10,280	83%	15,820	54%
Customer Bill Savings (millions)	Lifetime Tons	163,326	21,275	184,601	15,740	200,341	241,000	83%	371,900	54%
	Annual Dollars	\$1.76	\$0.23	\$1.99	\$0.17	\$2.16	\$2.64	82%	\$4.07	53%
Private Investment (millions)	Lifetime Dollars	\$41.49	\$5.43	\$46.91	\$4.10	\$51.01	\$62.00	82%	\$95.71	53%
	Dollars	\$30.51	\$5.33	\$35.84	-	\$35.84	\$48.30	74%	\$77.23	46%
Participants	Participants	3,402	-	3,402	401	3,803	5,892	65%	9,300	41%

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

³² This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

³³ Cumulative Current Target through Q4 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.

³⁴ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 14. Commercial New Construction Resource Acquisition Transition Initiative Results^{35,36,37,38}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	441	656	1,097	48,222	49,319	38,000	130%	66,200	75%
	MWh Lifetime	8,820	13,120	21,940	964,442	986,382	760,000	130%	1,324,000	75%
	MMBtu Annual	(248)	1,094	846	60,939	61,785	50,200	123%	105,100	59%
	MMBtu Lifetime	(4,960)	21,880	16,920	1,218,782	1,235,702	1,005,000	123%	2,105,000	59%
	MW	0.1	0.2	0.3	12	12	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	219	403	622	28,613	29,235	22,600	129%	40,300	73%
	Lifetime Tons	4,377	8,066	12,444	572,250	584,694	453,000	129%	808,000	72%
Customer Bill Savings (millions)	Annual Dollars	\$0.06	\$0.11	\$0.17	\$7.84	\$8.01	\$5.36	149%	\$9.41	85%
	Lifetime Dollars	\$1.15	\$2.19	\$3.33	\$156.82	\$160.16	\$107.30	149%	\$188.30	85%
Private Investment (millions)	Dollars	\$0.19	\$0.22	\$0.41	\$2.67	\$3.08	\$37.50	8%	\$42.07	7%
Participants	Participants	1	2	3	74	77	100	77%	147	52%

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

³⁵ 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.

³⁶ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

³⁷ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

³⁸ Private investment is only reported for pipeline projects at the encumbered stage or later.

Table 15. Low-Rise New Construction Resource Acquisition Transition Initiative: Market-Rate Results ^{39,40}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	1,955	588	2,544	2,439	4,983	4,240	118%	7,010	71%
	MWh Lifetime	39,107	11,769	50,876	48,784	99,660	85,000	117%	140,300	71%
	MMBtu Annual	47,822	9,732	57,554	13,763	71,317	48,400	147%	78,900	90%
	MMBtu Lifetime	956,435	194,642	1,151,077	275,256	1,426,333	967,000	148%	1,577,000	90%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	3,593	828	4,421	2,015	6,436	4,800	134%	7,870	82%
	Lifetime Tons	71,865	16,557	88,421	40,302	128,723	96,000	134%	157,400	82%
Customer Bill Savings (millions)	Annual Dollars	\$0.66	\$0.14	\$0.80	\$0.52	\$1.32	\$1.13	117%	\$1.86	71%
	Lifetime Dollars	\$13.21	\$2.87	\$16.08	\$10.35	\$26.42	\$22.60	117%	\$37.20	71%
Private Investment (millions)	Dollars	\$3.24	\$0.72	\$3.95	\$2.25	\$6.21	\$10.38	60%	\$17.73	35%
Participants	Participants	641	160	801	518	1,319	1,716	77%	2,926	45%

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

³⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

⁴⁰ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 16. Low-Rise New Construction Resource Acquisition Transition Initiative: Low- to Moderate-Income Results^{41,42}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	23	137	160	3,726	3,886	4,070	95%	7,770	50%
	MWh Lifetime	459	2,735	3,195	74,528	77,723	81,200	96%	155,200	50%
	MMBtu Annual	585	1,717	2,302	36,958	39,259	37,100	106%	66,900	59%
	MMBtu Lifetime	11,690	34,340	46,030	739,157	785,187	740,000	106%	1,336,000	59%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	43	163	206	3,933	4,140	4,100	101%	7,630	54%
Customer Bill Savings (millions)	Lifetime Tons	863	3,265	4,128	78,663	82,791	82,000	101%	152,600	54%
	Annual Dollars	\$0.01	\$0.03	\$0.03	\$0.96	\$1.00	\$1.00	100%	\$1.86	53%
Private Investment (millions)	Lifetime Dollars	\$0.13	\$0.55	\$0.69	\$19.25	\$19.94	\$19.85	100%	\$37.25	54%
	Dollars	\$0.22	\$0.25	\$0.47	\$10.20	\$10.67	\$14.43	74%	\$25.73	41%
Participants	Participants	48	56	104	2,411	2,515	3,102	81%	5,329	47%

* 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 because it will take time for the benefits to be realized.

⁴² Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 17. Multifamily New Construction Resource Acquisition Transition Initiative: Market-Rate Results ^{43,44}

Approval Date: February 29, 2016

Launch Date: August 8, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	1,322	1,322	2,531	52%	5,271	25%
	MWh Lifetime	-	-	-	26,438	26,438	50,700	52%	105,600	25%
	MMBtu Annual	-	-	-	7,853	7,853	12,690	62%	28,490	28%
	MMBtu Lifetime	-	-	-	157,064	157,064	253,500	62%	569,500	28%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	1,113	1,113	2,011	55%	4,291	26%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	22,261	22,261	40,100	56%	85,700	26%
	Annual Dollars	-	-	-	\$0.25	\$0.25	\$0.41	63%	\$0.86	30%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$5.09	\$5.09	\$8.15	62%	\$17.19	30%
	Dollars	-	-	-	\$4.00	\$4.00	\$10.22	39%	\$20.82	19%
Participants	Participants	-	-	-	726	726	1,289	56%	2,689	27%

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

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

⁴⁴ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 18. Multifamily New Construction Resource Acquisition Transition Initiative: Low- to Moderate-Income Results^{45,46}

Approval Date: February 29, 2016

Launch Date: August 8, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	7,145	7,145	10,030	71%	15,520	46%
	MWh Lifetime	-	-	-	142,903	142,903	200,200	71%	310,200	46%
	MMBtu Annual	-	-	-	30,387	30,387	49,500	61%	81,100	37%
	MMBtu Lifetime	-	-	-	607,748	607,748	990,000	61%	1,622,000	37%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	5,375	5,375	7,890	68%	12,450	43%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	107,500	107,500	158,000	68%	249,300	43%
	Annual Dollars	-	-	-	\$1.33	\$1.33	\$1.61	83%	\$2.51	53%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$26.68	\$26.68	\$32.10	83%	\$50.20	53%
	Dollars	-	-	-	\$29.55	\$29.55	\$41.30	72%	\$62.40	47%
Participants	Participants	-	-	-	3,654	3,654	5,057	72%	7,857	47%

* 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 because it will take time for the benefits to be realized.

⁴⁶ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 19. Anaerobic Digesters Resource Acquisition Transition Initiative Results^{47,48,49}

Approval Date: February 29, 2016

Launch Date: July 8, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	22,440	33%	37,440	20%
	MWh Lifetime	-	-	-	74,440	74,440	224,400	33%	374,400	20%
	MW	-	-	-	1	1	1	113%	1	113%
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	3,917	3,917	11,920	33%	19,920	20%
	Lifetime Tons	-	-	-	39,168	39,168	119,200	33%	199,200	20%
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$1.29	\$1.29	\$2.99	43%	\$4.99	26%
	Lifetime Dollars	-	-	-	\$12.88	\$12.88	\$29.99	43%	\$49.99	26%
Private Investment (millions)	Dollars	-	-	-	\$8.00	\$8.00	\$59.00	14%	\$99.00	8%
Participants	Participants	-	-	-	2	2	6	33%	10	20%

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

⁴⁷ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

⁴⁸ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

⁴⁹ NYSERDA makes no claim to the environmental attributes or any NYGATS certificates that may be associated with these projects.

Table 20. Small Wind Resource Acquisition Transition Initiative Results^{50,51,52}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	682	196	878	455	1,333	3,000	44%	5,000	27%
	MWh Lifetime	13,639	3,927	17,566	9,097	26,663	50,000	53%	82,000	33%
	MW	0.3	0.10	0.4	0.3	1	1	66%	2	40%
CO2e Emission Reduction (metric tons)	Annual Tons	359	103	462	239	701	2,000	35%	3,000	23%
	Lifetime Tons	7,177	2,066	9,243	4,786	14,029	27,000	52%	44,000	32%
Customer Bill Savings (millions)	Annual Dollars	\$0.10	\$0.02	\$0.12	\$0.06	\$0.18	\$0.44	42%	\$0.72	25%
	Lifetime Dollars	\$1.94	\$0.43	\$2.37	\$1.29	\$3.66	\$8.80	42%	\$14.40	25%
Private Investment (millions)	Dollars	\$1.43	\$0.35	\$1.78	\$1.91	\$3.69	\$4.40	84%	\$7.20	51%
Participants	Participants	20	2	22	33	55	79	70%	129	43%

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

⁵⁰ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

⁵¹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

⁵² NYSERDA makes no claim to the environmental attributes or any NYGATS certificates that may be associated with these projects.

Table 21. Solar Thermal Resource Acquisition Transition Initiative Results^{53,54}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2016)	% of Total Target through Initiative Completion (2016)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	703	703	830	85%	830	85%
	MWh Lifetime	-	-	-	10,539	10,539	12,500	84%	12,500	84%
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	370	370	437	85%	437	85%
	Lifetime Tons	-	-	-	5,546	5,546	6,550	85%	6,550	85%
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$0.09	\$0.09	\$0.11	81%	\$0.11	81%
	Lifetime Dollars	-	-	-	\$1.34	\$1.34	\$1.66	81%	\$1.66	81%
Private Investment (millions)	Dollars	-	-	-	\$0.73	\$0.73	\$0.82	89%	\$0.82	89%
Participants	Participants	-	-	-	33	33	42	79%	42	79%
Eligible Installers		5	-	5	-	5	20	25%	20	25%

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

⁵³ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

⁵⁴ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 22. Combined Heat and Power Resource Acquisition Transition Initiative Results^{55,56,57,58,59,60}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	1,409	92	1,501	219,367	220,868	227,000	97%	287,000	77%
	MWh Lifetime	21,129	1,380	22,509	3,290,511	3,313,020	3,360,000	99%	4,230,000	78%
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	0.3	0.0	0.3	41	41	38	109%	51	81%
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	290	19	309	46,279	46,588	51,000	91%	64,800	72%
Customer Bill Savings (millions)	Lifetime Tons	4,351	282	4,633	694,183	698,816	766,000	91%	973,000	72%
	Annual Dollars	\$0.19	\$0.01	\$0.20	\$20.92	\$21.12	\$23.05	92%	\$29.19	72%
Private Investment (millions)	Lifetime Dollars	\$2.84	\$0.19	\$3.03	\$313.78	\$316.81	\$345.70	92%	\$437.70	72%
	Dollars	\$8.24	\$0.72	\$8.96	\$182.72	\$191.68	\$202.00	95%	\$230.00	83%
Participants	Participants	20	2	22	76	98	70	140%	86	114%
MT Marketplace		-	1	1	9	1	10	10%	24	10%
Technical Assistance		-	-	-	15	15	*	-	*	-

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

⁵⁵ Cumulative Current Target (2016) and Total Target through Initiative Completion (2018) contain metrics from the Market Transformation of Marketplace table in the Resource Acquisition Chapter, which could be considered indirect benefit targets. Indirect benefits are not reflected because it will take time for the benefits to be realized.

⁵⁶ Committed benefits include three large projects in the early stages of NYSERDA review (with a combined capacity of 27.7 MW) to which refinements will be made in future reports, as needed.

⁵⁷ CHP targets and reporting methods associated with fuel used to run the CHP systems are being examined and may be adjusted in future reports.

⁵⁸ Energy Efficiency values represent MWh savings from the use of CHP systems; natural gas required to run CHP systems is 1,319,559 MMBtu cumulative annual and 19,793,385 MMBtu lifetime. Expected 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.

⁵⁹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

⁶⁰ Completed projects through September 30, 2017 contain adjustments due to lagged data and QA/QC.

3 Market Development Initiative Specific Results

Table 23. Market Development Initiative Budgets and Spending ^{61,62}

Initiative	Budget Approved as of December 31, 2017 ^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	\$21,150,000	\$1,546,402	\$1,060,180	\$155,000	\$2,761,582	13%	\$18,388,418
Commercial Chapter							
Energy Management	\$59,805,000	\$717,149	\$4,337,164	\$5,213,351	\$10,267,663	17%	\$49,537,337
Real Estate Tenant	\$25,499,999	\$638,103	\$1,583,247	\$80,096	\$2,301,446	9%	\$23,198,553
REV Campus Challenge	\$21,650,002	\$265,666	\$1,543,267	\$1,682,000	\$3,490,933	16%	\$18,159,069
K-12	\$21,600,000	-	-	-	-	-	\$21,600,000
Commercial Chapter Total	\$128,555,001	\$1,620,918	\$7,463,677	\$6,975,447	\$16,060,042	12%	\$112,494,959
Industrial Chapter							
Continuous Energy Improvement	\$17,539,000	\$1,116,349	\$1,819,688	-	\$2,936,037	17%	\$14,602,963
Industrial Chapter Total	\$17,539,000	\$1,116,349	\$1,819,688	-	\$2,936,037	17%	\$14,602,963
Communities Chapter							
Clean Energy Communities	\$14,218,527	\$306,065	\$624,260	\$2,449,500	\$3,379,825	24%	\$10,838,702
Community Energy Engagement	\$4,409,882	-	\$3,509,970	\$897,730	\$4,407,700	100%	\$2,182
Communities Chapter Total	\$18,628,409	\$306,065	\$4,134,230	\$3,347,230	\$7,787,525	42%	\$10,840,884
Large-Scale Renewables Chapter							
Offshore Wind Master Plan	\$5,000,000	\$1,236,410	\$253,535	-	\$1,489,945	30%	\$3,510,055
Offshore Wind Pre-Development Activities	\$10,000,000	\$4,221,615	\$944,578	\$25,000	\$5,191,193	52%	\$4,808,807
Large-Scale Renewables Chapter Total	\$15,000,000	\$5,458,025	\$1,198,113	\$25,000	\$6,681,138	45%	\$8,318,862
REV Technical Assistance Chapter							
REV Connect	\$2,500,000	\$1,276,809	\$1,187,351	\$1,982	\$2,466,142	99%	\$33,858
REV Technical Assistance Chapter Total	\$2,500,000	\$1,276,809	\$1,187,351	\$1,982	\$2,466,142	99%	\$33,858
Energy Storage Chapter							
Reducing Barriers to Distributed Deployment	\$24,450,000	\$196,827	\$2,279,666	\$1,186	\$2,477,679	10%	\$21,972,321
Energy Storage Chapter Total	\$24,450,000	\$196,827	\$2,279,666	\$1,186	\$2,477,679	10%	\$21,972,321
Clean Transportation Chapter							
Electric Vehicles	\$39,500,000	\$4,295,642	-	-	\$4,295,642	11%	\$35,204,358
Clean Transportation Chapter Total	\$39,500,000	\$4,295,642	-	-	\$4,295,642	11%	\$35,204,358
Agriculture Chapter							
2030 GLASE	\$5,000,000	\$233,148	\$4,766,852	-	\$5,000,000	100%	-
Advancing Agricultural Energy Technologies	\$3,760,000	-	-	-	-	-	\$3,760,000
Agriculture Chapter Total	\$8,760,000	\$233,148	\$4,766,852	-	\$5,000,000	57%	\$3,760,000

⁶¹ NYSERDA committed an additional \$22,850,404 to solicitations with upcoming due dates not included in Table 21. When including these funds, NYSERDA committed 18% of the approved budget to date for the Market Development Chapter. Committed benefits presented in this report does not include benefits associated with awards made because of these solicitations.

⁶² The Market Characterization and Design Chapter line item includes funds to support overarching, non-initiative-specific evaluation studies.

Table 23 continued

Low- to Moderate-Income Chapter							
Healthy Homes Feasibility Study	\$215,000	\$92,374	\$119,773	-	\$212,147	99%	\$2,853
LMI Multifamily	\$50,189,418	\$720,500	\$3,730,069	\$2,429,311	\$6,879,880	14%	\$43,309,538
LMI Single Family	\$229,261,861	\$54,835,485	\$1,008,656	\$12,167,823	\$68,011,963	30%	\$161,249,898
Low-Income Forum on Energy	\$1,300,000	\$44,935	\$189,476	\$30,000	\$264,411	20%	\$1,035,589
Retrofit NY	\$30,503,500	\$179,232	\$298,914	-	\$478,146	2%	\$30,025,354
REvitalize	\$725,000	\$18,248	\$29,752	\$260,000	\$308,000	42%	\$417,000
Low Income Community Solar	\$21,245,000	-	-	-	-	-	\$21,245,000
Low- to Moderate-Income Chapter Total	\$333,439,779	\$55,890,774	\$5,376,639	\$14,887,133	\$76,154,547	23%	\$257,285,232
Workforce Development and Training Chapter							
Industry Partnerships	\$11,345,000	\$225,515	\$2,074,185	\$1,738,255	\$4,037,955	36%	\$7,307,045
Workforce Development and Training Chapter Total	\$11,345,000	\$225,515	\$2,074,185	\$1,738,255	\$4,037,955	36%	\$7,307,045
Renewable Heating and Cooling							
Heat Pumps and Solar Thermal	\$33,211,843	\$703,961	\$5,494,006	\$62,711	\$6,260,678	19%	\$26,951,165
Renewable Heat NY	\$13,487,000	\$715,278	\$365,567	-	\$1,080,845	8%	\$12,406,155
Renewable Heating and Cooling Total	\$46,698,843	\$1,419,239	\$5,859,573	\$62,711	\$7,341,523	16%	\$39,357,320
Clean Energy Products Chapter							
Underutilized Product Support	\$28,896,000	\$1,277,914	\$500,559	\$20,001	\$1,798,474	6%	\$27,097,526
Clean Energy Products Chapter Total	\$28,896,000	\$1,277,914	\$500,559	\$20,001	\$1,798,474	6%	\$27,097,526
Multi-Sector Solutions Chapter							
Soft Cost Challenge	\$10,000,000	-	\$49,000	-	\$49,000	0%	\$9,951,000
Technical Services	\$21,898,040	-	-	-	-	-	\$21,898,040
Clean Energy AMP Challenge	\$10,500,000	-	-	-	-	-	\$10,500,000
Clean Energy Siting & Soft Cost Reduction	\$8,795,000	-	-	-	-	-	\$8,795,000
Multi-Sector Solutions Chapter Total	\$51,193,040	-	\$49,000	-	\$49,000	0%	\$51,144,040
Codes Chapter							
Code to Zero	\$21,000,000	-	-	\$41,186	\$41,186	0.2%	\$20,958,814
Codes Chapter Total	\$21,000,000	-	-	\$41,186	\$41,186	0.2%	\$20,958,814
On-Site Power Chapter							
Fuel Cells	\$15,000,000	-	-	-	-	-	\$15,000,000
On-Site Power Chapter Total	\$15,000,000	-	-	-	-	-	\$15,000,000
New Construction Chapter							
New Construction	\$96,641,432	-	-	-	-	-	\$96,641,432
New Construction Chapter Total	\$96,641,432	-	-	-	-	-	\$96,641,432
Residential Chapter							
Engaging New Markets	\$15,988,015	-	-	-	-	-	\$15,988,015
Residential Chapter Total	\$15,988,015	-	-	-	-	-	\$15,988,015
NYS Cost Recovery Fee	\$28,908,315	\$1,883,911	-	-	\$1,883,911	7%	\$27,024,404
Total Market Development	\$925,192,834	\$76,747,538	\$37,769,714	\$27,255,130	\$141,772,382	15%	\$783,420,452

Table notes are on the next page.

- a Funds approved by the DPS as of December 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 Sum of Expended Funds, Open Encumbrances, and Contract Pre-Encumbrances.
- f Percentage of the budget that has been committed.
- g Difference between Budget Approved Funds and Committed Funds.

Table 24. Real Estate Tenant Initiative Results^{63,64}

Approval Date: May 23, 2016

Launch Date: July 19, 2016

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2024)	% of Total Target through Initiative Completion (2024)
Energy Efficiency	MWh Annual	-	203	203	5,380	5,583	13,221	42%	124,900	4%
	MWh Lifetime	-	1,626	1,626	43,039	44,665	105,968	42%	999,200	4%
	MMBtu Annual	-	215	215	5,693	5,908	13,928	42%	131,800	4%
	MMBtu Lifetime	-	1,720	1,720	45,541	47,261	111,020	43%	1,054,000	4%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	118	118	3,134	3,252	7,690	42%	72,700	4%
Customer Bill Savings (millions)	Lifetime Tons	-	943	943	25,075	26,018	61,564	42%	581,600	4%
	Annual Dollars	-	\$0.04	\$0.04	\$0.93	\$0.97	\$1.83	53%	\$17.34	6%
Private Investment (millions)	Lifetime Dollars	-	\$0.28	\$0.28	\$7.46	\$7.74	\$14.63	53%	\$138.70	6%
	Dollars	-	\$0.01	\$0.01	\$0.19	\$0.20	\$1.28	16%	\$12.15	2%
Participants	Participants	-	2	2	75	77	142	54%	1,349	6%

* 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 because it will take time for the benefits to be realized.

⁶⁴ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 25. Key Milestones for Real Estate Tenant

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016–2020	Tenants will incorporate energy efficiency measures from tenant-specific packages into their designs. Observed gains from the National Resource Defense Council (NRDC), were 25–40% of energy saved above the 2007 code; NYSERDA is projecting gains of 15–20% against the 2010 and 2012 code. The actual savings will be identified through measurement and verification (M&V).	NYSERDA launched the program in July 2016. Initial market uptake was lower than anticipated. Through stakeholder engagement and voice of customer research, program was revised in July 2017. Program revision has resulted in greater market uptake. A total of 76 sites are now participating in program. 80% of these sites joined program in Q4 of 2017. Initial projects have resulted in greater energy efficiency in tenant spaces.
	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.	

Table 25 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	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.	
	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 26. Energy Management Initiative Results^{65,66}

Approval Date: May 23, 2016

Launch Date: June 20, 2016

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2024)	% of Total Target through Initiative Completion (2024)
Energy Efficiency	MWh Annual	-	-	-	57,735	57,735	58,550	99%	444,300	13%
	MWh Lifetime	-	-	-	461,879	461,879	469,600	98%	3,554,000	13%
	MMBtu Annual	-	-	-	25,743	25,743	26,900	96%	184,200	14%
	MMBtu Lifetime	-	-	-	205,946	205,946	214,800	96%	1,474,000	14%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	31,747	31,747	32,300	98%	243,400	13%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	253,974	253,974	257,200	99%	1,948,000	13%
	Annual Dollars	-	-	-	\$9.08	\$9.08	\$7.94	114%	\$60.11	15%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$72.66	\$72.66	\$63.50	114%	\$480.90	15%
	Dollars	-	-	-	\$7.83	\$7.83	\$22.64	35%	\$357.80	2%
Participants (Number of RTEM Buildings)		-	-	-	93	93	82	113%	822	11%
Participants (Number of REM Buildings)	Participants	-	-	-	-	-	7	-	640	-

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

⁶⁵ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

⁶⁶ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 27. Key Milestones for Energy Management

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	Secure RTEM Advisor and begin development of market standards.	RTEM Advisor is secure 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 has received 113 applications to date and 53 vendors are currently approved. This is marked complete, but the RFQ is open until April 2021 so the number of vendors will continue to grow.
✓	2016	Stimulate interest and market activity with an open enrollment incentive offering.	The RTEM Program Opportunity Notice launched June 20, 2016. Application submittals are in process and interest is expected to grow as more learn about the magnitude of the program and RTEM vendors are qualified. A substantial number of vendors are now qualified, 59 project applications over 93 sites are approved and more are expected. PON is open through 6/30/21.
✓	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 without the program.
	2017–2020	Incentives, Qualified Vendor Listing, and Independent RTEM advisor services help convert prospective customers into committed and installed RTEM projects.	59 approved RTEM projects (at 93 sites) with installation/services underway and a project pipeline of 30 additional projects. Projects can take a year to install and then proceed for 1 to 5 years, during which time the program collects data on recommended and installed energy efficiency measures. NYSERDA expects to start reporting some findings in 2020.
	2017–2020	NYSERDA market support and approach attract new RTEM vendors to the New York State market and increase business development investment of all RTEM vendors.	Due to the RTEM program, vendors are looking to initiate new business in NYS. Furthermore, due to the program structure of the program, vendors looking to enter the NYS market can partner with vendors that already have business in NYS, and thus can leverage existing relationships and expedite business development opportunities.

Table 27 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017–2020	Secure REM Advisor and begin development of market standards.	NYSERDA has identified a technical reviewer/REM adviser and are working on defining their scope of work within the REM Program.
	2017–2020	Create and grow a list of qualified REM vendors.	RFP 3683 was released September 11, 2017 and will identify qualified vendors.
	2017–2020	Stimulate interest and market activity with an open enrollment incentive offering for REM.	RFP 3683 was released September 11, 2017 to select vendors that will provide services for the Remote Energy Management Program.
	2017–2020	EM Advisors support gaps in market confidence and identify market approaches to eliminating gaps.	Work on this will begin once RTEM projects begin to be installed and reporting savings.
	2017–2020	Peer-to-peer exchanges and EM Advisors transfer learnings across the projects supported by NYSERDA and enhance success.	During the early RTEM project installations, discussions of best practices, client communications, and lessons learned have been reported to the RTEM Advisor.
	2017–2020	RTEM Technical Guidance Document is drafted and tested.	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 to 2018–2021.
	2017–2020	RTEM Technical Guidance Document is published.	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 to 2018–2021.
	2017–2020	NYSERDA in coordination with industry partners standardizes methodologies for calculating/analyzing costs and savings data.	Working with CUNY BPL (Building Performance Lab) to help RTEM vendors participate in focus groups to develop a MSoC (minimum standards of care). The MSoC will serve as a customer buying guide that will highlight the fundamental RTEM System/Service capabilities and benefits.

Table 27 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018–2021	NYSERDA direct supports are ratcheted downward as industry standardization is adopted and results of pilots/studies are shared, broadly increasing customer confidence in the benefits and returns of RTEM.	
	2018–2021	Methods for capturing the potential benefits of RTEM for operations and maintenance of buildings are standardized and widely available.	
	2018–2021	Aggregated data sets and applications of RTEM data are robust enough to enable quick and proper evaluation of energy savings projects, thus removing the need for detailed, building specific energy audits to identify potential energy savings, thereby reducing customer acquisition and project costs.	
	2018–2021	NYSERDA explores the utilization of its RTEM data set to advance efforts at demand reduction and peak-load shaping, as well as its use in predicting and optimizing investments in energy efficiency.	
	2018–2021	Training platform for facility owners/operators is designed. Training platform is available and used by facility owners/operators.	
	2018–2021	Market penetration of REM insights increases as commercial customers gain awareness of and confidence in remote audit technology for energy efficiency projects and the usage becomes more widespread. Regularly engage with REM vendors to understand changing technology and market landscape.	
	2022 and beyond	RTEM is the standard for quality energy metrics, efficient building operations, and accessing behind-the-meter data.	
	2022 and beyond	Qualified list and 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 28. Reforming the Energy Vision (REV) Campus Challenge Initiative Results^{67,68}

Approval Date: May 23, 2016

Launch Date: December 21, 2016

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	15,108	15,108	23,200	65%	108,100	14%
	MWh Lifetime	-	-	-	226,623	226,623	347,000	65%	1,621,000	14%
	MMBtu Annual	-	-	-	93,066	93,066	144,000	65%	670,000	14%
	MMBtu Lifetime	-	-	-	1,395,995	1,395,995	2,150,000	65%	10,050,000	14%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	1,470	-	8,804	-
	MWh Lifetime	-	-	-	-	-	22,000	-	132,100	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	1	-	8	-
	Annual Tons	-	-	-	12,897	12,897	20,600	63%	97,030	13%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	193,454	193,454	309,000	63%	1,455,000	13%
	Annual Dollars	-	-	-	\$2.57	\$2.57	\$3.87	67%	\$18.07	14%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$38.62	\$38.62	\$58.10	66%	\$271.10	14%
	Dollars	-	-	-	\$0.97	\$0.97	\$13.30	7%	\$71.20	1%
Participants	Participants	-	94	94	-	94	83	113%	150	63%

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

⁶⁷ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

⁶⁸ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 29. 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 had 94 institutions signed up as of the close of 2017.
	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.	In April 2016, NYSERDA recognized 46 REV Campus Challenge members as part of a "First Movers" announcement during Earth Week to highlight those institutions that took the initiative to join early and demonstrate their commitment to integrating clean energy into their campus, classroom, and community activities. Member progress and opportunities for recognition were collected as part of an annual member survey, responses to which are being analyzed.
	2020–2022	140 out of 250 institutions sign up to be REV Campus Challenge Members.	
	2020–2022	Members continue to make progress and receive recognition as demonstrated by new and revised planning, new commitments to sustainability goals and clean energy projects started and completed.	
	2020–2022	15% more NYS institutions participate in clean energy commitment opportunities, conferences/events, peer groups, etc., building a strong support network.	
	2020–2022	Annual/semiannual survey of member institutions provides feedback on clean energy progress and changes in overall campus, student, and community mindset.	
	2022–2025	Members continue to make progress and receive recognition as demonstrated by new and revised planning, new commitments to sustainability goals and clean energy projects started and completed.	
	2022–2025	25% more NYS institutions participate in clean energy commitment opportunities, conferences/events, peer groups, etc., building a strong support network.	
	2022–2025	Annual/semiannual survey of all institutions statewide provides feedback on clean energy progress and changes in overall campus, student, and community mindset.	

Table 30. K-12 Schools Initiative Results:^{69,70}

Approval Date: December 1, 2017

Anticipated Launch Date: Q2 2018

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	-	-	-	-	90,480	-
	MWh Lifetime	-	-	-	-	-	-	-	1,357,000	-
	MMBtu Annual	-	-	-	-	-	-	-	500,000	-
	MMBtu Lifetime	-	-	-	-	-	-	-	7,500,000	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	-	-	76,170	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	-	-	1,143,000	-
	Annual Dollars	-	-	-	-	-	-	-	\$16.69	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	-	-	\$250.40	-
	Dollars	-	-	-	-	-	-	-	\$86.40	-
Participants	Participants	-	-	-	-	-	-	-	2,800	-

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

⁷⁰ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 31. Key Milestones for K-12 Schools

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Develop a list of K-12 clean energy resources and update the K-12 website. Use the website to disseminate resources across schools in NYS.	NYSERDA updated its K-12 landing page to include all currently relevant resources for schools. NYSERDA will continuously update and improve this as the initiative moves forward.
✓	2017	Promote the utilization of FlexTech and fund energy master planning and performance contracting assistance oversight for schools.	K-12 schools have received notice that FlexTech is available for assistance through the NYSERDA website update and emails from school associations.
	2018	Develop and launch a competitive solicitation to select an existing benchmarking tool for the benchmarking program.	
	2018	Launch a clean energy benchmarking open enrollment program.	
	2018	Begin examining efforts to minimize hard and soft costs associated with delivering technical analysis for schools such as energy master plan development.	
	2018	Launch a competitive solicitation to provide gap assistance.	
	2020	Assess participation and seek feedback on gap assistance funding program; identify any needed changes.	
	2020	Distribute first annual survey for schools to provide feedback on clean energy progress specific to energy use intensity and greenhouse gas emissions data, projects and recognition.	
	2021	Assess school progress in the launched initiatives and assist them in receiving recognition as demonstrated by new and revised clean energy planning and implementation projects	
	2021	Deploy clean energy case studies and guidance documents based on successful efforts above.	
	2022	Launch second gap assistance funding program.	

Table 32. Continuous Energy Improvement Initiative: On-Site Energy Manager Results^{71,72,73}

Approval Date: May 23, 2016

Launch Date: September 12, 2016

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	24,825	24,825	15,000	166%	42,000	59%
	MWh Lifetime	-	-	-	372,375	372,375	225,000	166%	630,000	59%
	MMBtu Annual	-	-	-	430,635	430,635	175,000	246%	500,000	86%
	MMBtu Lifetime	-	-	-	6,459,525	6,459,525	2,630,000	246%	7,500,000	86%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	35,428	35,428	17,800	199%	50,400	70%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	531,416	531,416	267,000	199%	755,000	70%
	Annual Dollars	-	-	-	\$4.56	\$4.56	\$2.76	165%	\$7.80	59%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$68.47	\$68.47	\$41.34	166%	\$117.00	59%
	Dollars	-	-	-	\$8.15	\$8.15	\$20.19	40%	\$55.80	15%
Participants	Participants	-	-	-	6	6	15	40%	40	15%

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

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

⁷² Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

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

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

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016 and 2017	List of qualified energy-focused process consultants from which On-site Energy Management expertise can be sought and/or matched with industrial facilities.	Of the approximate 50 FlexTech Consultants (FTCs), nearly half indicate aptitude in energy management. Since the first solicitation was released in September 2016, 10 applications were received and approved that include four different FTCs. The second pilot was expanded to include Commercial facilities in November 2017. A webinar was held in December with approximately 150 attendees, including consultants and customers. NYSERDA plans to provide a list of the consultants who are part of both pilots to the marketplace.
	2016 and 2017	C-suite executive buy-in and engagement that provides momentum for energy planning and management activities at industrial sites.	The first solicitation released in September 2016, received and approved seven applications, and closed in March 2017. The second round of the pilot was released in November 2017 with changes to the offering based upon marketplace feedback intended to spur participation in the initiative. A webinar was held in December with approximately 150 attendees, including consultants and customers.
	2016 and 2017	Industrial end-user commitment to energy goal creation and realization is key to successful On-site Energy Manager engagements.	The first solicitation released in September 2016, received and approved seven applications, and closed March 2017. Energy goal creation has been established by all the first pilot participants. The second pilot was released in November 2017 with changes to the offering based upon marketplace feedback intended to spur participation in the initiative.
	2016 and 2017	Robust tracking and reporting of energy and nonenergy benefits of the On-site Energy Manager role.	Getting participants to apply took longer than anticipated. Seven applications were received prior to the first pilot closing March 2017 and there are currently six active projects that show and track benefits. The second round of the pilot was released in November 2017 with changes to the offering based upon marketplace feedback intended to spur participation in the initiative.

Table 33 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017 and 2018	A credible business case that proves the benefits of on-site energy management in industrial facilities. Large sites will save at least 1,200 MWh and 15,000 MMBtu annually. Medium sites will save at least 500 MWh and 5,000 MMBtu annually.	Six On-site Energy Manager engagements are underway (with different start/ end dates). First completion of business case targeted Q3 2018. The second pilot was released in November 2017 with changes to the offering based upon marketplace feedback intended to spur participation in the initiative.
	2017 and 2018	Business case content for consultant marketing plans, which address this need in the industrial market.	Six On-site Energy Manager engagements are underway (with different start/ end dates). First completion of business case targeted Q3 2018. The second pilot was released in November 2017 with changes to the offering based upon marketplace feedback intended to spur participation in the initiative.
	2018	Long-term energy resource(s) dedicated to energy management, without NYSERDA support (e.g., manufacturer hires energy manager in-house; continues with On-Site Energy Manager consultant; or with a new consultant).	
	2018	Transition of knowledge and tools from pilot On-site Energy Managers to long-term energy resource.	
	2018	Successful dissemination of training, road maps, case studies, and vetted consultant lists creates both supply for On-site Energy Manager by qualified technical consultants and demand for the role at industrial sites.	

Table 34. Continuous Energy Improvement Initiative: Strategic Energy Management Results^{74,75,76}

Approval Date: May 23, 2016

Launch Date: November 22, 2016

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	34,500	34,500	52,500	66%	52,500	66%
	MWh Lifetime	-	-	-	345,000	345,000	525,000	66%	525,000	66%
	MMBtu Annual	-	-	-	267,000	267,000	406,000	66%	406,000	66%
	MMBtu Lifetime	-	-	-	2,670,000	2,670,000	4,060,000	66%	4,060,000	66%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	32,020	32,020	50,600	63%	50,600	63%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	320,198	320,198	506,000	63%	506,000	63%
	Annual Dollars	-	-	-	\$4.37	\$4.37	\$7.88	55%	\$7.88	55%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$43.69	\$43.69	\$78.80	55%	\$78.80	55%
	Dollars	-	-	-	\$54.62	\$54.62	\$84.00	65%	\$84.00	65%
Participants	Participants	-	-	-	8	8	20	40%	40	20%

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

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

⁷⁵ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

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

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

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016 and 2017	<p>Facilities understand how energy intensity is embedded in their process and have integrated energy management into their organizational culture.</p> <p>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>	<p>The Strategic Energy Management solicitation (Program Opportunity Notice 3411) was released in November 2016 and closed May 2017. Eight participants were selected to participate in the first cohort. The kick-off workshop for the cohort was on September 12, 2017. As of November 2017, all participants have an Energy Map, have identified savings opportunities, and are working on developing project registers and plans for project implementation. The second SEM cohort was released to the market in December 2017.</p>
	2017 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> <p>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).</p> <p>Executive support to implement energy-related projects.</p>	<p>The end date for the first Industrial cohort will occur in September 2018 at which point progress will be monitored and reported until after that time to measure adoption of the strategy. The second SEM cohort was released in December 2017.</p>
	2018 and beyond	<p>Industrial facilities seek out developed information and standardized tools as well as contractor support to implement and adopt SEM.</p> <p>Tracked inquiries and dissemination of case studies, training, SEM resources, and vetted consultant list.</p>	
	2018 and beyond	<p>SEM replaces the ad hoc energy project approach resulting in deeper and continuous energy savings and energy decision-making at industrial facilities.</p> <p>Critical staff can express how the energy measures they've implemented have affected their bottom line.</p> <p>Facilities realize one to two percent reductions in their energy consumption annually.</p> <p>For large industrial facilities, this equates to approximately 150–300 MWh, 1,100–2,500 MMBtu Natural Gas, 75–160 MMBtu Oil, and \$100,000 in energy savings per participant in the first year.</p>	

Table 36. Continuous Energy Improvement Initiative: Energy Management Information System Results^{77,78}

Approval Date: June 23, 2017

Launch Date: November 14, 2017

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2022)	% of Total Target through Initiative Completion (2022)
Energy Efficiency	MWh Annual	-	-	-	-	-	-	-	67,050	-
	MWh Lifetime	-	-	-	-	-	-	-	670,500	-
	MMBtu Annual	-	-	-	-	-	-	-	992,500	-
	MMBtu Lifetime	-	-	-	-	-	-	-	9,925,000	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	-	-	91,380	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	-	-	913,800	-
	Annual Dollars	-	-	-	-	-	-	-	\$14.12	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	-	-	\$141.21	-
	Dollars	-	-	-	-	-	-	-	\$3.19	-
Participants	Participants	-	-	-	-	-	-	-	79	-

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

⁷⁸ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 37. Key Milestones for Continuous Energy Improvement Initiative: Energy Management Information Systems

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Develop and release RFP for qualified EMIS vendors.	RPQ 3691 was launched on November 14, 2017.
✓	2017	Solicit and contract with EMIS assessment provider(s).	Technical reviewer contractors available for technical assessment of EMIS systems.
✓	2017	Develop solicitation for participants.	PON 3689 was launched on November 14, 2017.
	2017	Develop and disseminate a matrix or list of qualified EMIS vendors.	List of vendors to be supplied upon receipt and review of qualification applications subsequent to release of solicitation in Q4 2017
	2019	Distribute list of qualified EMIS vendors.	
	2019	Initiate development and dissemination of EMIS case studies, webinars, and knowledge transfer sessions in a variety of media/forums.	
	2021	Refine and continue the dissemination of EMIS case studies, webinars, and knowledge transfer sessions in a variety of media/forums.	

Table 38. Clean Energy Communities Initiative Results^{79,80,81,82,83}

Approval Date: May 23, 2016

Launch Date: August 3, 2016

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	26,765	1,126	27,891	1,946	29,837	24,600	121%	118,600	25%
	MWh Lifetime	401,476	16,886	418,362	29,187	447,550	368,000	122%	1,780,000	25%
	MMBtu Annual	88,596	6,718	95,314	3,599	98,913	138,000	72%	667,500	15%
	MMBtu Lifetime	1,328,934	100,774	1,429,708	53,988	1,483,696	2,070,000	72%	9,990,000	15%
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	12,179	1,002	13,181	-	13,181	26,100	51%	126,000	10%
	MWh Lifetime	182,679	15,035	197,714	-	197,714	391,000	51%	1,889,000	10%
	MW	10	0.9	11	-	11	22	51%	107	10%
CO2e Emission Reduction (metric tons)	Annual Tons	25,507	1,480	26,987	1,232	28,219	34,500	82%	166,700	17%
	Lifetime Tons	382,603	22,202	404,805	18,487	423,292	518,000	82%	2,502,000	17%
Customer Bill Savings (millions)	Annual Dollars	\$5.97	\$0.34	\$6.31	\$0.29	\$6.61	\$8.02	82%	\$38.74	17%
	Lifetime Dollars	\$89.61	\$5.09	\$94.70	\$4.42	\$99.12	\$120.00	83%	\$580.30	17%
Private Investment (millions)	Dollars	-	\$10.80	\$10.80	-	\$10.80	\$16.70	65%	\$80.73	13%
Participants	Participants	-	62	62	-	62	40	155%	171	36%

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

⁷⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

⁸⁰ Due to the split-funded nature of this program, NYSERDA is also tracking and reporting savings associated with completed High-Impact Actions in the Regional Greenhouse Gas Initiative (RGGI) report according to the percentage of RGGI funding currently committed for the Clean Energy Communities Program.

⁸¹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

⁸² NYSERDA makes no claim to the environmental attributes or any NYGATS certificates that may be associated with these projects.

⁸³ Completed projects through September 30, 2017 contain adjustments due to lagged data and QA/QC.

Table 39. Key Milestones for Clean Energy Communities

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016–2019	Eighty communities complete and demonstrate replicability of four out of ten High-Impact Actions and submit successful grant applications to the Clean Energy Communities Program to complete innovative clean energy projects.	<p>Outreach contractors are actively engaging communities. Many local governments are working to complete High-Impact Actions. As of December 31, 2017, 123 communities completed at least four actions and are officially designated Clean Energy Communities. In total, 289 Communities completed 811 High-Impact Actions, 656 of which were completed after program launch ('new').</p> <p>Anticipated savings from the 656 'new' completed High-Impact Actions and the 41 grant projects that are in the process of contracting (when combined with savings reported in Regional Greenhouse Gas Initiative (RGGI) reporting), include the following:</p> <p>138,675 MWh Efficiency Savings 61,263 MWh Renewable Generation 52.19 MW Renewable Generation 370,617 MMBtu Natural Gas Savings 4,453 MMBtu Gasoline Savings 84,660 MMBtu Distillate Fuel Savings</p>
✓	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 six currently certified to 12 certified.	There are now 16 Certified Climate Smart Communities, nine of which achieved Certification after CEC program launch.
	2016–2019	NYSERDA 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 recently released minor revisions to the Clean Energy Communities program to better accommodate the needs of communities and to clarify program requirements.

Table 40. Community Energy Engagement Initiative Results^{84,85}

Approval Date: March 27, 2017

Launch Date: October 10, 2017

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	-	-	-	\$1.73	\$1.73	\$1.73	100%	\$1.73	100%
Participants	Participants	-	-	-	3,355	3,355	3,355	100%	3,355	100%

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

⁸⁴ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

⁸⁵ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 41. Key Milestones Community Energy Engagement

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	NYSERDA issues competitive “base-activities” solicitation.	RFP 3588 was released May 2, 2017.
	2017	Awards from base-activity solicitation are contracted.	All eight contracts awarded through the first release of the solicitation are fully executed. The remaining two regions were awarded in November 2017 and staff anticipates full execution of these contracts Q1 2018.
✓	2017	Commencement of local outreach and support to households and communities (with the focus on LMI).	Commencement of local outreach in support began in eight of the 10 regions. The remaining two regions are pending contract execution, which is anticipated in Q1 2018.
	2018	NYSERDA initiates awards proposals for regional-specific pilot projects.	
	2018–2020	NYSERDA develops one or more case studies on regional-specific pilot projects and other support provided through the base activities.	
	2019	Conduct surveys of customers assisted by Local Based Organizations (LBO) to assess performance.	

Table 42. Offshore Wind Master Plan Initiative Results^{86,87}

Approval Date: May 23, 2016

Launch Date: September 15, 2016

Market Development Initiative Specific Results	Market Development Initiative	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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.

⁸⁶ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

⁸⁷ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 43. 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.	Multiple stakeholder engagement meetings were held in 2016 and 2017. Stakeholders reviewed the Blueprint and provided input for the Offshore Wind Master Plan.
	2016–2017	Publish the final Offshore Wind Master Plan, after completion of studies and no later than end of 2017.	The Offshore Wind Master Plan and all of the underlying studies were completed on schedule by 12/31/2017. The Master Plan and all studies are ready for publication and are awaiting approval for release to the public.

Table 44. Offshore Wind Pre-Development Activities Initiative Results^{88,89}

Approval Date: May 23, 2016

Launch Date: December 12, 2016

Market Development Initiative Specific Results	Market Development Initiative	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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.

⁸⁸ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

⁸⁹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 45. Key Milestones for Offshore Wind Pre-Development Activities

Complete ✓	Time Frame	Milestone	Explanation of Progress
		<p>Reports resulting from predevelopment work validating New York State Offshore Wind resource and proposing potential additional wind energy areas for development.</p>	<p>Planning started for environmental and other studies and surveys. Solicitation issued for offshore wind technical assistance in December 2016. Twenty environmental, social, regulatory, economic and regulatory reports including report of New York States Offshore Wind resources were completed by December 31, 2017. Drafts of all 20 reports were sent to external reviewers and input from reviewers informed final reports. New York State Area for Consideration for the Potential Locating of Offshore Wind Energy Areas completed with report given to the Bureau of Ocean Energy Management and public in October 2017.</p>
		<p>Reports providing site-specific data needed to support detailed siting, design, and permitting of Offshore Wind project(s).</p>	<p>Planning and stakeholder outreach started for procurement and deploying of a buoy for measuring site-specific wind, wave and other data. Contractor hired to assist in developing measurement campaign. Draft Metocean Plan published November 2016. Additional planning started in 2017 Q1 for site-specific environmental, sea floor, and other studies and surveys. Multi-beam sonar and sediment profile imaging survey of sea floor undertaken June–August 2017 with final report completed by December 31, 2017 and awaiting for approval to release. Working on plan for deploying one or more buoys for measuring wind, wave, and other data in 2018.</p>

Table 46. REV Connect Initiative Results^{90,91}

Approval Date: May 23, 2016

Launch Date: August 9, 2016

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	\$0.07	\$0.07	-	\$0.07	\$0.25	27%	\$0.50	13%
Participants	Participants	-	-	-	-	-	*	-	*	-

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

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

⁹¹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 47. Key Milestones for REV Connect

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	Q3 2016	Execute contract with partner to operate REV Connect.	NYSERDA competitively selected and executed a contract with a contractor to operate REV Connect.
✓	Q2 2017	Create information resources and summarize best practices.	Information resources completed and posted to the nyrevconnect.com website include focal innovation opportunities that NYS utilities are interested in, a profiled of each investor-owned utility in the State, and summaries of key REV orders
✓	Q2 2017	Develop project evaluation criteria and process.	The project evaluation criteria and process were tested with market participants in May 2017, completed in June 2017, and posted to the REV Connect website.
✓	Q3 2017	Launch initial REV Connect platform to allow submission of project ideas.	The REV Connect website launched on August 10, 2017.
	Q4 2017	Draft Innovation Plan completed.	In July 2017, NYSERDA removed this task from the contractor's scope of work to shift resources into other project tasks. NYSERDA will revisit how to address this work in Q1 2018.

Table 48. Reducing Barriers to Deploying Distributed Energy Storage Initiative Results^{92,93}

Approval Date: August 17, 2016

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

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	143	-	143	1,200	1,342	2,600	52%	13,800	10%
	MWh Lifetime	1,428	-	1,428	11,995	13,423	26,000	52%	138,000	10%
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
	MW	0.3	-	0.3	2	2	5	52%	25	10%
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	75	-	75	631	706	1,370	52%	7,260	10%
	Lifetime Tons	751	-	751	6,311	7,063	13,700	52%	72,600	10%
Customer Bill Savings (millions)	Annual Dollars	\$0.02	-	\$0.02	\$0.16	\$0.18	\$0.35	52%	\$1.84	10%
	Lifetime Dollars	\$0.19	-	\$0.19	\$1.60	\$1.79	\$3.46	52%	\$18.35	10%
Private Investment (millions)	Dollars	-	-	-	-	-	\$8.50	-	\$30.00	-
Number of customers engaged (sites for developments)	Participants	1	-	1	33	34	30	113%	120	28%
Number of vendors engaged	Participants	-	-	-	108	108	15	720%	45	240%

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

⁹² This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

⁹³ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 49. 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.	Contracts executed for four technical assistance contractors competitively selected from 42 proposals received.
✓	2017	Lead acid, lithium-ion, and flow batteries are independently tested with results aggregated into first responder training materials for authorities having jurisdiction.	Independent burn testing report issued for chemistries seeking FDNY permit; first responder training materials being completed; refer to milestone six for incorporation of these results into permitting requirements.
✓	2017	Technical consultants or organizations to assist with soft cost reduction strategies, quality assurance, and feasibility studies are selected.	Technical assistance contractors selected and contracted.
✓	2017	Launch a competitive program funding value-stacking pilots.	Solicitation developed with input from developers, customers, utilities, and NYISO. It launched in April 2017, and is receiving and reviewing concept papers.
	2017	Expand scope of battery testing lab for additional chemistries to be tested.	Additional testing requirements may be driven by Underwriters Lab 9540/9540A standard. As part of work with FDNY to develop interior siting requirements for advanced batteries, this will become clearer and may not require additional NYSERDA testing at this time.
	2017	Model permitting guides are developed.	Weekly meetings held with Fire Department of New York (FDNY) and NYC Department of Buildings (DOB) and subject matter experts to review issues, conduct independent analysis, and develop clear permitting guidelines for exterior advanced battery systems. Guidelines now in review with FDNY/DOB. These will also provide guidance for other permitting agencies in NYS. Beginning to discuss interior siting requirements.

Table 49 Continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Public platform is launched including use cases, system performance results, and fact sheets.	Progress is being made on developing the NYSERDA energy storage resources page. Content is being uploaded to the energy storage program page while the DG Portal, which will hold performance data, is under development.
	2017	Customers with deployed energy storage systems begin engaging for post-installation quality assurance to validate savings.	The technical service contractor is iterating M&V site plans with initial installations supported by NYSERDA and nearing agreement on the particulars of performance monitoring requirements.
	2017	Safety testing is completed on additional emerging commercial chemistries.	The UL 9540/9540A standard may provide sufficient testing requirements to alleviate need for additional NYSERDA testing (this will become clearer in the next quarter). Facilitated independent testing at company's expense for a new chemistry by UEP seeking permitting in NYC.
	2017	Market segmentation for NYSERDA customer acquisition activities supported under this investment plan expands to non-interval metered customers.	The first iteration of the database with customer leads has been developed and delivered. The customer leads list has ranked all NYC customers over 50,000 sq ft based on criteria findings from technoeconomic analysis of interval customers, prior research on best fit load profiles, and practical considerations. This will be used for direct customer outreach.
	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.	Year-long outreach campaign to underway. Technical assistance to initial customers has begun, information on energy storage business models is being released, webinar on behind-the-meter storage applications published, and potential customers are being discovered and engaged.
	2017	Increasing numbers of energy storage vendors are engaged in New York State, as surveyed at least annually.	Vendor outreach underway, including working group meetings, webinar, fact sheets, and technology conference. Technical assistance contractor began outreach on September 1 focusing on one-on-one guidance and training with particular emphasis on the practical requirements to take advantage of current opportunities for storage.

Table 49 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018	Safety testing is completed on additional emerging commercial chemistries.	
	2018	Model permitting guides are updated.	
	2018	Convincing use cases and best-fit customer characteristics and acquisition tools are publicized.	
	2018	Pilots convert prospective installations into installed energy storage projects that are used to provide customer benefit and address electric system needs.	
	2019	Independent validation assesses the ability of aggregated customer-sited storage systems to provide locational relief to the distribution utility or NYISO when called upon.	
	2019	During the pilot period, NYSERDA direct support for specific projects is reduced annually as installation cost decreases, revenue opportunities are better quantified, and results of pilots increase performance confidence.	

Table 50. Electric Vehicles Initiative: EV Rebate Results^{94,95,96}

Approval Date: August 17, 2016

Launch Date: March 21, 2017

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2020)	% of Total Target through Initiative Completion (2020)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	97,164	55,447	152,611	-	152,611	250,000	61%	1,430,000	11%
	MMBtu Lifetime	971,644	554,466	1,526,110	-	1,526,110	2,500,000	61%	14,300,000	11%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	3,772	1,900	5,672	-	5,672	13,400	42%	76,730	7%
	Lifetime Tons	37,721	18,995	56,716	-	56,716	134,000	42%	767,300	7%
Customer Bill Savings (millions)	Annual Dollars	\$2.44	\$1.37	\$3.81	-	\$3.81	*	-	*	-
	Lifetime Dollars	\$24.39	\$13.68	\$38.06	-	\$38.06	*	-	*	-
Private Investment (millions)	Dollars	\$68.95	\$42.53	\$111.48	-	\$111.48	\$180.00	62%	\$1,027.00	11%
Participants	Participants	1,970	1,215	3,185	-	3,185	5,125	62%	29,250	11%

* 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 because it will take time for the benefits to be realized.

⁹⁵ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

⁹⁶ Energy Efficiency values represent MMBtu savings from the use of electric vehicles; the electricity required to charge the vehicle is 10,008 MWh cumulative annual and 100,075 MWh lifetime. Expected Emission reductions and customer bill savings are net, including both MMBtu that add to the benefits and the electricity required to charge the electric vehicles that subtract from the benefits.

Table 51. Key Milestones for Electric Vehicles Initiative: EV Rebate

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	EV Rebate Program Launch.	The program launched March 21, 2017. As of December 31, 2017, a total of \$4.4 million in CEF funding had been spent. To date, 475 car dealers have signed up for the program and including CEF and non-CEF funding, NYSEERDA has approved applications for 4,653 rebates totaling \$6.1 million.

Table 52. 2030 Greenhouse Lighting and Systems Engineering (GLASE) Initiative Results^{97,98}

Approval Date: September 15, 2016

Launch Date: January 1, 2017

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2022)	% of Total Target through Initiative Completion (2022)
Energy Efficiency	MWh Annual	-	-	-	3,470	3,470	3,470	100%	3,470	100%
	MWh Lifetime	-	-	-	34,700	34,700	34,700	100%	34,700	100%
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MW	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	1,826	1,826	1,830	100%	1,830	100%
	Lifetime Tons	-	-	-	18,258	18,258	18,300	100%	18,300	100%
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$0.29	\$0.29	\$0.29	101%	\$0.29	101%
	Lifetime Dollars	-	-	-	\$2.91	\$2.91	\$2.92	100%	\$2.92	100%
Private Investment (millions)	Dollars	-	-	-	\$9.46	\$9.46	\$9.46	100%	\$9.46	100%
Participants	Participants	-	-	-	1	1	5	20%	25	4%

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

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

⁹⁸ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 53. Key Milestones for Greenhouse Lighting and Systems Engineering (GLASE)

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	Contract with core Consortium members.	Contracts are fully executed.
✓	2016	Review and approve Scientific Advisory Panel structure.	Selection of members is completed. Contractual arrangements are also completed between members and universities regarding how they be reimbursed for participation.
	2017	Review and approve Consortium business plan to attain financial self-sustainability in 2023.	The Executive Director of GLASE completed a draft business plan. However, the marketing plan will be used to refine the business plan. The business plan will be updated in an iterative fashion throughout the project. It is anticipated that the marketing plan will be completed in February 2018.
	2018	Monitor small (6,000 square feet) pilot demonstration of a basic light and shade control system.	The Principal Investigator at Cornell has assessed and interviewed potential sites for the pilot. A candidate site has been chosen, and work is underway to formalize their mutual obligations.
	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.	The principal investigator at Cornell is in discussions with potential sites for the large demonstration.
	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 54. Advancing Agricultural Energy Technologies Initiative Results^{99,100}

Approval Date: December 1, 2017

Anticipated Launch Date: Q4 2018

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2022)	% of Total Target through Initiative Completion (2022)
Energy Efficiency	MWh Annual	-	-	-	-	-	-	-	1,642	-
	MWh Lifetime	-	-	-	-	-	-	-	24,630	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	-	-	864	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	-	-	12,960	-
	Annual Dollars	-	-	-	-	-	-	-	\$0.24	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	-	-	\$3.58	-
	Dollars	-	-	-	-	-	-	-	\$0.75	-
Participants	Participants	-	-	-	-	-	-	-	20	-

⁹⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁰⁰ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 55. Key Milestones for Advancing Agricultural Energy Technologies

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018	Identify technologies to demonstrate.	Conducted voice of customer (VOC) with multiple stakeholders, vendors, academia and end-users to identify technologies to demonstrate.
	2018	Issue Solicitation to select teams of technology vendor and farms to demonstrate technologies.	
	2019	Contract with teams to demonstrate underused and emerging technologies.	
	2020	Publish and disseminate business case scenarios that support underused and emerging technology implementation.	
	2021	<p>Perform targeted outreach of successful business case scenarios to farms suitable for implementing the demonstrated technology.</p> <p>Reliable market sources compile, develop and maintain current information on advanced clean energy technologies for use by local information-exchange networks.</p> <p>Advanced technologies are installed by farms outside of demonstration projects.</p> <p>Agriculture vendors and suppliers use energy efficiency as a tool to sell their products.</p>	

Table 56. RetrofitNY Initiative Results^{101,102}

Approval Date: August 31, 2016

Launch Date: April 4, 2017

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	-	-	-	-	187,100	-
	MWh Lifetime	-	-	-	-	-	-	-	3,742,000	-
	MMBtu Annual	-	-	-	-	-	-	-	3,356,000	-
	MMBtu Lifetime	-	-	-	-	-	-	-	67,130,000	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	-	-	290,200	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	-	-	5,804,000	-
	Annual Dollars	-	-	-	-	-	-	-	\$56.16	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	-	-	\$0	-
	Dollars	-	-	-	-	-	-	-	\$0	-
Participants	Participants	-	-	-	-	-	170	-	100,000	-

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

¹⁰¹ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁰² Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 57. Key Milestones for RetrofitNY

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	Criteria to be met by technical solutions are defined.	Criteria finalized.
✓	2017	Sufficient potential demand for deep energy retrofits is aggregated.	Discussions with more than 50 building owners and Public Housing Authorities to identify pilot buildings, collect information on these building and on the portfolios of interested owners indicate that there is enough interest to launch the first round of designs. Discussion with 50+ industry players also indicate that enough are ready to form teams to begin designing solutions.
	2017	Competitive solicitation for the first round of the design-build competition is released.	The solicitation is anticipated to be released by the end of January 2018.
	2018	One or more solutions are built and tested through the design-build competition.	NYSERDA identified target building typologies, and is in the process of identifying potential pilot buildings.
	2020	Solution(s) are adapted to additional building typologies.	
	2020	Financial products that are adapted to affordable housing entities' processes and are compatible with federal and State rules that apply to affordable housing are developed and made available.	
	2022	Retrofit solutions are integrated in the public housing authorities' and affordable housing regulators' preservation strategies.	
	2025	Retrofit solutions are cost effective and NYSERDA subsidies are no longer necessary.	
	2025	Building components and systems required for deep energy retrofits are readily available in the New York State market.	
	2025	Financing solutions exist for building owners to purchase these solutions with minimal upfront cost.	
	2025	Solutions are implemented on non-Affordable Housing buildings without subsidy.	

Table 58. REVitalize Initiative Results^{103,104,105}

Approval Date: August 31, 2016

Launch Date: June 27, 2017

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	1,760	-	2,994	-
	MWh Lifetime	-	-	-	-	-	35,200	-	59,880	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	1	-	2	-
	Annual Tons	-	-	-	-	-	1,120	-	1,960	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	22,400	-	39,210	-
	Annual Dollars	-	-	-	-	-	\$0.33	-	\$0.57	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	\$6.52	-	\$11.38	-
	Dollars	-	-	-	-	-	\$6.74	-	\$11.86	-
Participants	Participants	-	-	-	-	-	5	-	5	-

* 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 because it will take time for the benefits to be realized.

¹⁰⁴ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

¹⁰⁵ NYSERDA makes no claim to the environmental attributes or any NYGATS certificates that may be associated with these projects.

Table 59. Key Milestones for REVitalize

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Issue a competitive solicitation seeking proposals for a community energy planning effort that benefits low- to moderate-income (LMI) communities and residents.	The solicitation launched June 29, 2017.
	2017	Selection of five communities to receive financial and technical support, contract development, and contract execution by Q4 2017.	Communities selected through the solicitation are in the process of contracting process.
	2017	Commencement of community planning activities, development of community plan, testing of the toolkit.	Marketing and Evaluation consultants are working with NYSERDA staff to develop baseline and research needs.
	2017	Community-scale clean energy project development and implementation started.	Project development and implementation will begin after contracts have been awarded.
	2018	NYSERDA receives feedback from community groups and on the toolkit.	
	2019	Completion of five community energy projects.	
	2019	NYSERDA refines toolkit and conducts technology transfer to communicate effective models of finance and ownership, as well as the toolkit.	

Table 60. Low-Income Forum on Energy Initiative Results^{106,107}

Approval Date: August 31, 2016

Launch Date: August 31, 2016

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Participants	Participants	1,114	325	1,439	-	1,439	950	151%	7,629	19%

¹⁰⁶ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁰⁷ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 61. Key Milestones for Low-Income Forum on Energy

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Issue a competitive solicitation for program support.	The solicitation was issued with a due date of March 23, 2017. The Scoring Committee meeting was held on April 13, 2017. Contractor selection was approved at green light review on July 25, 2017. Agreement was executed in September 28, 2017.
✓	2017	Implement a series of regional meetings across the State in Q2 of 2017.	A series of seven LIFE 2017 Regional Meetings was held throughout May 2017. The meeting series included each of the following NYS regions: New York City, Long Island, Western New York, Southern Tier, North Country, Hudson Valley, and Capital Region. In total, there were 445 participants in attendance, representing 236 organizations.
	2018	Implement a statewide conference in Q2 of 2018.	Planning for the LIFE 2018 Statewide Conference, to be held in May 2018, began in Q3 of 2017. Agenda development is currently underway. A Planning Subcommittee comprised of LIFE Steering Committee members has been assembled in Q4 of 2017.
	2019	Issue a competitive solicitation for program support or issue a contract extension for existing implementation services.	
	2019	Implement a series of regional meetings across the State in Q2 of 2019.	
	2020	Implement a statewide conference in Q2 of 2020.	
	2021	Implement a series of regional meetings across the State in Q2 of 2021.	
	2022	Issue a competitive solicitation for program support or issue a contract extension for existing implementation services.	
	2022	Implement a statewide conference in Q2 of 2022.	
	2023	Implement a series of regional meetings across the State in Q2 of 2023.	
	2024	Issue a competitive solicitation for program support or issue a contract extension for existing implementation services.	
	2024	Implement a statewide conference in Q2 of 2024.	

Table 62. Key Milestones for Healthy Homes Feasibility Study

Approval Date: August 31, 2016

Launch Date: January 20, 2017

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Complete feasibility study and decide on whether to continue with the pilot design and implementation phase.	Feasibility study is currently in progress. Due to delays in obtaining access to Medicaid data, an interim analysis using publically available aggregate data was undertaken on a temporary basis. A draft version of the report, along with interim quantitative analysis, is under review by NYSERDA and partner agencies (DOH, HCR). As soon as access to Medicaid data is obtained, the full Feasibility Study will be revised.
	2017	Begin the pilot design phase, if NYSERDA and NYS agency partners decide to go forward.	Given affirmative results of the interim analysis, initial considerations for pilot design began in Q4 2017.
	2017	Pilot design is complete.	In the case that pilot design is formally pursued, completion is expected by Q2 2018.
	2017	Commencement of pilot activities.	Initial considerations for pilot design began in Q4 2017.
	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 63. Low- to Moderate-Income Single-Family Initiative: Low-Income Results^{108,109,110,111}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	5,967	991	6,959	1,881	8,840	9,790	90%	29,620	30%
	MWh Lifetime	89,510	14,870	104,380	28,214	132,594	146,844	90%	444,500	30%
	MMBtu Annual	149,224	28,150	177,374	47,801	225,175	255,278	88%	729,000	31%
	MMBtu Lifetime	3,730,600	703,752	4,434,352	1,195,020	5,629,372	6,381,959	88%	14,970,000	38%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	11,302	2,100	13,402	3,615	17,017	19,500	87%	56,750	30%
Customer Bill Savings (millions)	Lifetime Tons	251,151	47,285	298,436	80,471	378,907	437,000	87%	1,078,000	35%
	Annual Dollars	\$2.66	\$0.49	\$3.15	\$0.94	\$4.09	\$4.64	88%	\$13.55	30%
Private Investment (millions)	Lifetime Dollars	\$58.66	\$10.99	\$69.65	\$20.50	\$90.15	\$100.50	90%	\$251.50	36%
	Dollars	-	-	-	-	-	\$0.75	-	\$5.70	-
Participants	Participants	10,765	1,712	12,477	3,359	15,836	18,417	86%	53,948	29%

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

¹⁰⁸ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁰⁹ Completed projects through September 30, 2017 contains adjustments due to lagged data and QA/QC.

¹¹⁰ Cumulative Current Target through Q3 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.

¹¹¹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 64. Low- to Moderate-Income Single-Family Initiative: Moderate-Income Results^{112,113,114}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	1,814	243	2,057	160	2,217	1,975	112%	4,236	52%
	MWh Lifetime	27,216	3,641	30,857	2,399	33,256	29,619	112%	63,520	52%
	MMBtu Annual	88,907	10,584	99,490	11,808	111,298	115,687	96%	282,300	39%
	MMBtu Lifetime	2,222,663	264,589	2,487,251	295,200	2,782,451	2,902,179	96%	5,986,000	46%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	6,154	725	6,880	776	7,656	7,586	101%	18,160	42%
Customer Bill Savings (millions)	Lifetime Tons	144,310	16,857	161,167	18,570	179,737	178,271	101%	368,400	49%
	Annual Dollars	\$1.26	\$0.14	\$1.40	\$0.18	\$1.58	\$1.72	92%	\$4.08	39%
Private Investment (millions)	Lifetime Dollars	\$29.29	\$3.29	\$32.59	\$4.27	\$36.86	\$39.86	92%	\$82.50	45%
	Dollars	\$15.55	\$2.30	\$17.85	-	\$17.85	\$18.10	99%	\$43.06	41%
Participants	Participants	3,144	560	3,704	492	4,196	4,313	97%	11,258	37%

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

¹¹² This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹¹³ Cumulative Current Target through Q3 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.

¹¹⁴ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 65. Key Milestones for Low- to Moderate-Income Single-Family

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Host regional contractor meetings to gather stakeholder input.	Four regional contractors meetings were held in July: Syracuse, Mt. Kisco, Batavia, and Latham with more than 250 attendees in total.
✓	2017	Competitive solicitation for technical implementation services.	The Technical Implementation Services RFP 3446 closed in late June 2017. Contract negotiations are completed and the Agreement should be executed in Q1 2018.
✓	2017	Deploy new low-income referral tracking database.	The EmPower NY referral tracking database was initially deployed in August.
	2017	Update policies and procedures manual.	Materials have been updated to reflect recent implementation shifts toward Shared Services and a new Technical Services implementation contractor. NYSERDA is working on combining all forms and applications between Assisted Home Performance and EmPower NY for consistency. This is expected to be completed in 2018.
	2018	Host regional contractor meetings to gather stakeholder input.	

Table 66. Low- to Moderate-Income Multifamily Initiative Results^{115,116}

Approval Date: February 29, 2016

Launch Date: May 19, 2016

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	-	-	-	3,546	3,546	5,140	69%	47,720	7%
	MWh Lifetime	-	-	-	53,190	53,190	77,100	69%	716,100	7%
	MMBtu Annual	-	-	-	71,667	71,667	70,100	102%	650,100	11%
	MMBtu Lifetime	-	-	-	1,075,007	1,075,007	1,052,000	102%	9,762,000	11%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	5,676	5,676	6,790	84%	62,990	9%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	85,135	85,135	101,900	84%	945,900	9%
	Annual Dollars	-	-	-	\$0.85	\$0.85	\$1.42	60%	\$13.15	6%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$12.71	\$12.71	\$21.20	60%	\$197.00	6%
	Dollars	-	-	-	-	-	\$23.00	-	\$175.54	-
Number of Units Served	Participants	-	-	-	3,853	3,853	4,086	94%	39,464	10%

* 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 because it will take time for the benefits to be realized.

¹¹⁶ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 67. Key Milestones for Low- to Moderate-Income Multifamily

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Increase incentive levels, and decrease minimum threshold.	The program has been updated, and marketing activities have been launched. Projects are expected within the next few weeks.
✓	2017	Host annual Provider Summit understand market impacts and future needs.	The 2017 Summit saw record attendance with over 140 participants. The Program Team received positive feedback on the adjustment made to the Program design earlier in 2017.
	2018–2021	Continue to evaluate market response to incentive levels and thresholds and adjust as needed.	

Table 68. Key Milestones for Low Income Community Solar

Approval Date: December 1, 2017

Anticipated Launch Date: Q1 2018

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Issue solicitation for community solar projects to dedicate generation to low-income customers with a standard offer subscription.	The solicitation is expected to be issued Q1 2018.
	2018	Execute agreements with community solar projects for capacity dedicated to low income subscriptions.	
	2018	Initiate low income customer outreach and enrollment.	
	2018-2020	Issue additional solicitation(s) for community solar projects, if needed.	
	2018-2020	Execute additional agreements with community solar projects for low-income subscriptions, in needed.	
	2020	Finalize post-initiative transition strategy.	

Table 69. Industry Partnerships Initiative Results^{117,118}

Approval Date: September 15, 2016

Launch Date: January 13, 2017

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2019)	% of Total Target through Initiative Completion (2019)
Energy Efficiency	MWh Annual	-	-	-	44,251	44,251	53,200	83%	147,400	30%
	MWh Lifetime	-	-	-	354,007	354,007	426,000	83%	1,179,000	30%
	MMBtu Annual	-	-	-	300,720	300,720	352,000	85%	975,800	31%
	MMBtu Lifetime	-	-	-	2,405,763	2,405,763	2,820,000	85%	7,806,000	31%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	39,270	39,270	46,700	84%	129,300	30%
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	314,160	314,160	374,000	84%	1,034,000	30%
	Annual Dollars	-	-	-	\$7.55	\$7.55	\$9.02	84%	\$24.99	30%
Private Investment (millions)	Lifetime Dollars	-	-	-	\$60.36	\$60.36	\$72.20	84%	\$199.90	30%
	Dollars	-	-	-	\$4.93	\$4.93	\$3.59	137%	\$9.95	50%
Participants	Participants	-	-	-	12	12	15	80%	42	29%

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

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

¹¹⁸ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 70. 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 (O&M) partners were convened and one-on-one discussions with industry partners will continue through 2017 and 2018.
	2016	Identify employer champions, those who will help NYSERDA to lead the initiative, for building operations and maintenance.	Industry champions have been identified and are working with NYSERDA as well as with their peers to identify labor-related gaps and to inform intervention strategies.
✓	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 or need for culture change within organizations to establish self-sustaining change. PON 3442 closed in July 2017 and resulted in 13 approved applications for funding, with 12 contracts executed or under contract negotiation. NYSERDA will issue a second building O&M solicitation in Q4 2017 with plans to re-issue in 2018.
	2017	Data collected from demonstration sites to help demonstrate the business case for training.	Data collection is underway in four business case demonstration projects.
	2017-2018	Identify and implement up to six business demonstrations. Collect performance data from demonstration sites for case studies and sharing results.	NYSERDA continues to explore opportunities to develop industry partnerships, where appropriate and through a modification to the investment plan, in new areas that may include clean energy talent pipeline, renewable thermal, storage, zero energy homes, renewables such as off-shore wind, high-efficiency HVAC technologies and systems, advanced residential clean energy technologies, or smart grid technology applications.
	2017-2019	Issue a solicitation(s) to support the development of building operations and maintenance training initiatives that address skill gaps and facilitate career paths with multiple due dates as appropriate.	Four business case demonstrations are underway: high schools owned by the Archdiocese of NY, BMS training with two upstate high schools, the Association for Energy Affordability and several MF buildings in NYC and, 32BJ with MF properties in the Bronx. Contracts for two additional demonstrations are being finalized and are expected to begin early 2018
	2018	Identify one additional area (by sectors, industry or technology) to initiate industry partnership strategy to address workforce development and training needs to advance goals of CEF.	Off shore wind, HVAC, renewable heating and cooling and other related EE areas have been identified as topics for industry partnerships to address talent pipeline and skill gaps issues.
	2018-2019	Develop and implement marketing plan to share results of business case demonstrations and building operations and maintenance project results. Share intervention templates with industry.	A marketing plan under development to share the results of the projects and business case demonstrations with the market.

Table 71. Heat Pumps and Solar Thermal Initiative Results^{119,120,121}

Approval Date: May 16, 2017

Launch Date: May 30, 2017

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	16	132	148	-	148	*	-	*	-
	MWh Lifetime	403	3,293	3,697	-	3,697	*	-	*	-
	MMBtu Annual	1,040	2,991	4,032	224,500	228,532	76,200	300%	841,600	27%
	MMBtu Lifetime	26,006	74,787	100,793	5,612,500	5,713,293	1,910,000	299%	21,040,000	27%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	43	168	211	8,450	8,661	3,390	255%	34,810	25%
Customer Bill Savings (millions)	Lifetime Tons	1,076	4,205	5,281	211,241	216,522	84,800	255%	870,300	25%
	Annual Dollars	\$0.01	\$0.1	\$0.1	\$1.28	\$1.36	\$0.57	238%	\$5.63	24%
Private Investment (millions)	Lifetime Dollars	\$0.31	\$1.57	\$1.88	\$32.11	\$33.99	\$14.30	238%	\$140.80	24%
	Dollars	\$0.32	\$0.97	\$1.29	\$49.23	\$50.51	\$4.56	1108%	\$122.90	41%
Participants	Participants	16	33	49	10	59	155	38%	3,487	2%

* 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 because it will take time for the benefits to be realized.

¹²⁰ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

¹²¹ Energy Efficiency values represent MMBtu savings from the use of renewable heating and cooling technologies; electricity required to utilize the RH&C technology is 9,378 MWh annual and 234,446 lifetime. Expected emission reductions and customer bill savings are net, including both MMBtu's that add to the benefits and additional electricity required to run the system that subtract from the benefits.

Table 72. Key Milestones Heat Pumps and Solar Thermal

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Solicit for and contract with technical support contractor for community campaigns	RFP 3751 was released on November 16, 2017. Proposals due January 10, 2018.
	2017	Launch GSHP contractor mentoring program.	Contract signed August 30, 2017. GSHP market partners have signaled that this timing is premature and prefer a pilot in a geographical area that can be expanded statewide.
	2017	Release competitive solicitation to select community campaigns (repeat annually).	PON 3723 was released on November 16, 2017. Proposals are due January 17, 2018. A webinar was held on December 7, 2017 and attended by 88 people.
✓	2017	Release open enrollment solicitation for GSHP incentive.	The Ground Source Heat Pump Rebate (PON 3620) was released on May 30, 2017.
✓	2017	Provide list of qualified GSHP designers, installers, and drillers to market.	As of December 31, 2017, 57 qualified GSHP designers, installers and drillers were listed on NYSERDA's website.
✓	2017	Contract with consultants to perform QA and design review for GSHP incentive projects.	Contracts with the consultant performing QA and design review have been executed.
	2018	Provide marketing toolkit and installer selection model solicitations to pilot community campaigns.	The marketing toolkit is under development using the Solarize marketing toolkit as a starting point. Installer selection model RFP will be developed by the Technical Assistance contractor using the HeatSmart RFP as a starting point.
	2018	Launch community campaigns (repeat annually).	
✓	2018	Contract with consultants to perform screening assessments and schematic designs for college and university campuses and State and local buildings.	NYPA has entered into contract with ICF to perform screening, draft Best Practices/Lessons Learned document, and design and engineering service scope of work documents.
	2018	Provide standardized contracts and best practices manual to market.	"Lessons Learned" and "Best Practices" documents relating to Geothermal Campus Challenge are part of scope of work of contractor (ICF).
	2018	Complete assessment of M&V methodologies for system performance and share with market participants.	
	2019	Disseminate RH&C case studies and design and installation best practices to the market.	
	2019	Develop aggregated procurement for colleges and universities and State and local buildings.	
	2024	Complete commissioning and M&V on large commercial, campus, and State and local building projects.	

Table 73. Renewable Heat NY Initiative Results^{122,123,124}

Approval Date: May 16, 2017

Launch Date: May 9, 2017

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2021)	% of Total Target through Initiative Completion (2021)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	1,351	2,485	3,836	1,495	5,332	3,460	154%	17,640	30%
	MMBtu Lifetime	27,017	49,709	76,726	29,907	106,633	69,300	154%	352,900	30%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	94	146	240	175	415	255	163%	1,296	32%
	Lifetime Tons	1,871	2,929	4,800	3,499	8,299	5,090	163%	25,920	32%
Customer Bill Savings (millions)	Annual Dollars	\$0.03	\$0.05	\$0.09	\$0.06	\$0.14	\$0.09	161%	\$0.45	32%
	Lifetime Dollars	\$0.66	\$1.07	\$1.73	\$1.13	\$2.86	\$1.77	161%	\$9.03	32%
Private Investment (millions)	Dollars	\$0.13	\$0.44	\$0.57	\$0.18	\$0.75	\$2.55	30%	\$15.36	5%
Participants	Participants	41	124	165	9	174	370	47%	1,629	11%

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

¹²² This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹²³ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

¹²⁴ Completed projects through September 30, 2017 contain adjustments due to lagged data and QA/QC.

Table 74. Key Milestones Renewable Heat NY

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Modify incentives to reflect current market conditions and re-issue open enrollment solicitation.	Streamlining of program processes based on feedback from December 2017 stakeholder meeting is underway. Evaluating potential modifications to the Large Commercial offering to encourage program participation through value adding activities.
	2017	Contract with Alliance for Green Heat to provide funding to Wood Stove Design Challenge on an annual basis through 2019.	Planning for the 2018 Wood Stove Design Challenge by the Alliance for Green Heat is underway. This competition will focus on automated wood stoves and be held on the National Mall in Washington D.C. on November 9-14, 2018. http://forgreenheat.org/2018-stovedesign/stovedesign.html
	2017	Launch marketing campaign.	PON 3694 (Cooperative Advertisement and Promotions for HVAC Partners) will be amended to add Biomass heating technologies in Q1 of 2018.
	2018	Contract with research partners to provide studies on wood smoke and public health.	
	2018	Launch community sponsored purchasing campaigns.	
	2018	Contract with manufacturers selected under competitive solicitation.	
	2019	Issue competitive solicitation to seek proposals from advanced biomass heating equipment manufacturers on technology improvements.	
	2019	Reissue workforce development program based on market feedback.	

Table 75. Underutilized Product Support Initiative Results^{125,126,127}

Approval Date: May 16, 2017

Launch Date: August 17, 2017

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2020)	% of Total Target through Initiative Completion (2020)
Energy Efficiency	MWh Annual	-	-	-	-	-	2,300	-	89,790	-
	MWh Lifetime	-	-	-	-	-	29,900	-	1,167,000	-
	MMBtu Annual	4,502	79,467	83,969	-	83,969	17,400	483%	399,000	21%
	MMBtu Lifetime	67,532	1,192,010	1,259,541	-	1,259,541	262,000	481%	5,985,000	21%
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	175	3,094	3,269	-	3,269	1,880	174%	62,610	5.2%
Customer Bill Savings (millions)	Lifetime Tons	2,629	46,403	49,031	-	49,031	25,800	190%	844,600	5.8%
	Annual Dollars	\$0.08	\$0.96	\$1.04	-	\$1.04	\$0.57	183%	\$17.96	5.8%
Private Investment (millions)	Lifetime Dollars	\$1.13	\$14.46	\$15.59	-	\$15.59	\$7.93	197%	\$245.50	6.3%
	Dollars	\$0.49	\$6.07	\$6.56	-	\$6.56	\$5.78	114%	\$161.30	4.1%
Advanced Rooftop Units	Participants	-	-	-	-	-	50	-	2,190	-
Air Source Heat Pumps		129	2,277	2,406	-	2,406	500	481%	11,430	21%

* 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 because it will take time for the benefits to be realized.

¹²⁶ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

¹²⁷ Energy Efficiency values represent MMBTU savings from ASHPs; the electricity required to utilize the RH&C technology is 5,580 MWh annual and 83,693 lifetime. Expected emission reductions and customer bill savings are net, including both the MMBtu's that add to the benefits and addition MWh's required to run the system that subtract from the benefits.

Table 76. Key Milestones Underutilized Product Support¹²⁸

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Launch open enrollment incentive program for Advanced Rooftop Units (ARTU).	<p>ARTU program is on hold pending additional research and market engagement. The initiative was intended to promote the stocking and sales of the most efficient and controllable RTUs on the market, but the intended technology performance levels are not readily available in the supply chain at this point. NYSERDA is looking at alternate structures and technologies to address commercial HVAC, including advanced controls retrofits and variable refrigerant flow systems. If the VRF research comes back positive, NYSERDA will plan to launch an initiative in mid-2018.</p> <p>This milestone will need to be revised.</p>
	2017	Release solicitation for shared awareness and education campaigns, as well as customer targeting and acquisition.	<p>PON 3694, Cooperative Advertising and Promotions for HVAC Partners, was released on December 7, 2017. The solicitation covers marketing, outreach, and training, and will initially focus on supporting efforts to promote cold climate ASHPs and GSHPs, but can be expanded if NYSERDA offers programs for other technologies.</p>
	2017	HVAC trainings assessed and compiled to facilitate increased contractor participation.	<p>HVAC trainings are offered by manufacturers and distributors for their associated contractors.</p> <p>ASHP trainings have been assessed and there looks to be sufficient diversity and supply to meet current and expected demand. NYSERDA is working to offer a portal contractors to learn about available trainings in the State that will be updated in an ongoing manner by manufacturers and distributors.</p> <p>Trainings for ARTUs are offered on a much more limited basis and are generally not requested by contractors. When NYSERDA launches a commercial HVAC offering, it will reassess and compile available trainings.</p>

¹²⁸ The launch dates for the ASHP and ARTU are not in alignment with what was presented in the investment plan. NYSERDA will correct these launch dates in a future filing based on guidance from the Department of Public Service.

Table 76 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Case studies developed and deployed in the market, along with current resources from regional and national organizations.	NYSERDA is deploying best practice resources for contractors from the Northeast Energy Efficiency Partnership. For case studies, much more information is available for ARTUs than for ASHPs, so the development time will push this into 2018.
✓	2017	Issue competitive solicitation for technical analysis related to product and appliance standards.	Solicitation for technical analysis of potential product standards was released in August and the work was completed in November in order to inform potential legislative actions in 2018.
	2018	Efficiency and cost calculator released in the market.	NYSERDA is assessing the current market offerings across technologies. NYSEDA expects tool will need to be updated or developed to meet our needs. Any tool developed will be applicable across technologies to maximize impact for contractors.
	2018	Mapping tool for Air-Source Heat Pumps (ASHP) potential released in the market.	The customer targeting/mapping tool solicitation is in the development phase in consultation with RH&C and Information Products. The goal of this solicitation is to test methods for collecting and processing publicly available data that can be used to identify high potential opportunities for efficiency retrofits in advance of failure.
✓	2018	Launch open enrollment incentive program for ASHPs.	ASHP program was launched on August 17, 2017.
	2018	Issue competitive solicitation to identify and test alternative business models.	NYSERDA will identify, test, and expand existing business models in the EE retrofit space, especially into the SMB market. Possible options include expanding energy service agreements, leasing of efficient equipment, and promoting efficiency-as-a-service.
	2018	Issue competitive solicitation for pilots to identify and deploy solutions for the integration of traditional and advanced systems, such as ASHPs.	<p>NYSERDA plans to offer this as part of the second round of the Next Generation HVAC Technology Challenge (PON 3519).</p> <p>Continuing conversations have taken place with manufacturers, northeast program administrators, and other stakeholders on this topic. There is a tremendous amount of interest in addressing this challenge, and a wide belief that current technology can be applied to this challenge. NYSEDA is working with NEEP to find other states/programs that might be interested in offering a joint or parallel solicitation.</p>
	2019	Issue open solicitation to expand alternative business models based on results from competitive solicitation in 2018.	

Table 77. Energy Efficiency Soft Cost Challenge Initiative Results^{129,130}

Approval Date: July 19, 2017

Anticipated Launch Date: Q1 2018

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	-	-	-	-	17,720	-
	MWh Lifetime	-	-	-	-	-	-	-	177,200	-
	MMBtu Annual	-	-	-	-	-	-	-	590,600	-
	MMBtu Lifetime	-	-	-	-	-	-	-	5,906,000	-
Renewable Energy	MW	-	-	-	-	-	-	-	-	-
	MWh Annual	-	-	-	-	-	-	-	-	-
	MWh Lifetime	-	-	-	-	-	-	-	-	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	-	-	-	-
	Annual Tons	-	-	-	-	-	-	-	46,570	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	-	-	465,700	-
	Annual Dollars	-	-	-	-	-	-	-	11	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	-	-	111	-
	Dollars	-	-	-	-	-	-	-	7	-
Participants	Participants	-	-	-	-	-	10	-	20	-

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

¹³⁰ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 78. Key Milestones for Energy Efficiency Soft Cost Challenge

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Issue competitive solicitation for first round of the challenge.	Draft of solicitation in process with early 2018 issue date.
✓	2017	Select an implementation consultant.	An implementation consultant has been selected.
	2017	Hold bidder's presentation to answer questions on the challenge.	The bidders presentation will be held after the solicitation has been issued.
	2017	Select preliminary winners.	Preliminary winner will be selected after the solicitation has been issued and proposals received.
	2018	Contract projects with 10 preliminary winners. Monitor and provide assistance and resources to preliminary winners.	
	2018	Hold business plan presentations to a panel of judges.	
	2018	Select up to five, grand prize winners.	
	2018	Contract projects with first round grand prize winners.	
	2018	Issue competitive solicitation for second round of the challenge.	
	2018	Hold bidder's presentation to answer questions on the challenge.	
	2018	Select preliminary winners.	
	2019	Contract projects with 10 preliminary winners. Monitor and provide assistance and resources to preliminary winners.	
	2019	Hold business plan presentations to a panel of judges.	
	2019	Select up to five, grand prize winners.	
	2019	Contract projects with second round grand prize winners.	

Table 79. Technical Services Initiative Results^{131,132}

Approval Date: October 3, 2017

Launch Date: November 9, 2017

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	-	-	-	-	87,310	-
	MWh Lifetime	-	-	-	-	-	-	-	1,484,000	-
	MMBtu Annual	-	-	-	-	-	-	-	471,300	-
	MMBtu Lifetime	-	-	-	-	-	-	-	8,012,000	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	-	-	1,645	-
	MWh Lifetime	-	-	-	-	-	-	-	27,970	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	-	-	72,280	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	-	-	1,229,000	-
	Annual Dollars	-	-	-	-	-	-	-	15	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	-	-	249	-
	Dollars	-	-	-	-	-	-	-	91	-
Participants	Participants	-	-	-	-	-	-	-	1,445	-

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

¹³² Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 80. Key Milestones for Technical Services

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Identify qualified energy-focused consultants to participate in pilots and serve customers engaging in pilots or cost-shared energy assessments.	Identified qualified energy-focused consultants to participate in pilots.
✓	2018	Issue solicitation for On Site Energy Manager pilot.	PON 3701 for On Site Energy Manager pilot was launched on November 9, 2017.
	2018	Award funding to initial entities selected under On-Site Energy Manager pilot.	
	2018	Issue solicitation, New Aggregation Models pilot.	
	2018	Contract with third-party to support best practices development including the farm management best practices guide.	
	2019	Award funding to initial entities selected under New Aggregation Models pilot.	
	2019	Disseminate best practices materials.	
	2019	Issue revised open enrollment Agriculture Energy Audit component of FlexTech.	
	2019	Begin examining the results of pilot(s) to determine if additional rounds of the same pilot are needed in the market or if new pilots are needed. Subsequent milestones will be updated accordingly based on the result of this review.	
	2020	Issue revised open enrollment FlexTech Program.	
	2022	Issue third pilot solicitation. It is anticipated that the third pilot will be available through 2024.	

Table 81. Clean Energy Advanced Market Performance (AMP) Challenge Initiative Results^{133,134}

Approval Date: December 1, 2017

Anticipated Launch Date: Q1 2018

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2018)	% of Total Target through Initiative Completion (2018)
Energy Efficiency	MWh Annual	-	-	-	-	-	-	-	25,930	-
	MWh Lifetime	-	-	-	-	-	-	-	389,000	-
	MMBtu Annual	-	-	-	-	-	-	-	152,100	-
	MMBtu Lifetime	-	-	-	-	-	-	-	2,282,000	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	-	-	4,693	-
	MWh Lifetime	-	-	-	-	-	-	-	70,400	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	-	-	4	-
	Annual Tons	-	-	-	-	-	-	-	24,690	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	-	-	370,400	-
	Annual Dollars	-	-	-	-	-	-	-	3	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	-	-	52	-
	Dollars	-	-	-	-	-	-	-	55	-
Participants	Participants	-	-	-	-	-	-	-	2	-

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

¹³⁴ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 82. Key Milestones for Clean Energy Advanced Market Performance (AMP) Challenge

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018	Issue competitive solicitation.	Solicitation currently under internal review.
	2018	Contract with selected participants.	Contracting will occur subsequent to the release of solicitation and review of received proposals.
	2018	Finalize participants' Clean Energy Action Plans for 2019 during participants' capital planning cycles. Clean Energy Action Plan updates will be conducted on an annual basis with updates for 2020 and 2021 being made during capital planning cycles in 2019 and 2020, respectively.	Finalization of clean energy action plans will occur immediately subsequent to contracting.
	2020	Conduct M&V for implemented 2019 projects. M&V will be conducted on an ongoing basis through 2022. Assess program performance and participant satisfaction to test, measure, and adjust on an annual basis.	
	2022	Issue AMP Summary report detailing lessons learned to date and potential for replicability.	

Table 83. Clean Energy Siting and Soft Cost Reduction Initiative Results^{135,136}

Approval Date: December 1, 2017

Anticipated Launch Date: Q1 2018

Market Development Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2020)	% of Total Target through Initiative Completion (2020)
Authorities Having Jurisdiction (AHJs)	Participants	-	-	-	-	-	-	-	100	-
Working Group Participants		-	-	-	-	-	-	-	60	-

¹³⁵ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹³⁶ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 84. Key Milestones for Clean Energy Siting and Soft Cost Reduction

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018	Establish a soft cost working group.	
	2018	Issue a solicitation to select a pool of contractors and organizations to develop, disseminate, and implement soft cost solutions.	
	2018	Contract with a pool of contractors and organizations.	
	2018	Complete trainings for technical assistance providers.	
	2018	Launch a statewide outreach and education campaign to publicize soft cost solutions and technical assistance services, including convening regional meetings for LSR stakeholders.	
	2018	Issue the incentive grant solicitation for AHJs taking significant steps to reduce solar soft costs.	
	2018	Issue the Soft Cost Innovation solicitation.	
	2018	Contract with Soft Cost Innovation award recipients.	
	2019	Compile and publish a document of all case studies to highlight best soft cost reduction strategies and clean energy-friendly communities.	

Table 85. Codes to Zero Initiative Results^{137,138}

Approval Date: December 1, 2017

Anticipated Launch Date: Q4 2018

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	-	-	-	-	-	-	-	\$513.50	-
Trainings	Participants	-	-	-	-	-	250	-	7,756	-
Pilots		-	-	-	-	-	-	-	6	-

¹³⁷ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹³⁸ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 86. Key Milestones for Codes to Zero

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Extend training and third-party plan review contracts.	Two of three energy code training contracts were extended through December 2018. The remaining energy code training contract will be extended in Q1 2018. The contract for third-party plan review will not be extended.
✓	2017	Issue a procurement to provide third-party services through 2018.	A mini-bid was issued Q4 2017 among FlexTech and Technical Review consultants to secure third-party service providers through 2019. However, RGGI funding is being used for these services; funds are no longer coming from CEF as previously expected.
	2018	Issue NY Stretch-Energy stretching off of IECC22 2018.	
	2018	Issue Pilot #1 solicitation to pilot alternative enforcement structures.	
	2018	Issue Pilot #2 solicitation for pilot communities to adopt NY Stretch-Energy (IECC2018).	
	2018	Issue solicitation for audience-specific training content and approaches.	
	2018	Finalize plan to codify stretch-to-zero as baseline by 2030.	
	2019	Contract Pilot(s) #1 for alternative enforcement business structures.	
	2019	Contract Pilot(s) #2 for adoption of NY Stretch-Energy (IECC2018).	
	2019	Contracts for audience-specific training content and approaches.	
	2019	Issue Solicitation to develop NY Stretch-Energy stretching off of IECC2021.	
	2019	Issue Pilot #3 solicitation for pilot communities to test Stretch to Zero code approaches.	
	2020	Contract for development of NY Stretch-Energy (IECC2021).	
	2020	Contract Pilot(s) #3 to test Stretch to Zero code approaches.	
	2021	Issue NY Stretch-Energy stretching off of IECC 2021.	
	2021	Disseminate results of pilots for alternative enforcement business structures.	

Table 87. Fuel Cells Initiative Results^{139,140}

Approval Date: December 1, 2017

Anticipated Launch Date: Q2 2018

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	-	-	-	-	-	-	-	\$41.00	-
Participants	Participants	-	-	-	-	-	-	-	27	-

¹³⁹ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁴⁰ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 88. Key Milestones for Fuel Cells

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018	Issue open enrollment solicitation.	
	2018	Contract with accepted open enrollment solicitation applicants as they apply through 2019.	
	2018	Confirm installation of equipment at site. This will start in 2018 and continue in 2019 based on timing of applications.	
	2019	Confirm first annual performance of fuel cell operation. This will start in 2019 and continue in 2020 based on timing of applications.	

Table 89. New Construction Market Rate and Initiative Results^{141,142}

Approval Date: December 1, 2017

Anticipated Launch Date: Q2 2018

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2020)	% of Total Target through Initiative Completion (2020)
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	-	-	-	-	-	-	-	\$94.33	-
Market Rate Housing-Units Participants		-	-	-	-	-	-	-	8,300	-
Market Rate Commercial Buildings	Participants	-	-	-	-	-	-	-	184	-
Market Rate Training Participants		-	-	-	-	-	-	-	726	-

¹⁴¹ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁴² Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 90. Low Income New Construction Initiative Results^{143,144}

Approval Date: December 1, 2017

Anticipated Launch Date: Q2 2018

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2020)	% of Total Target through Initiative Completion (2020)
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	-	-	-	-	-	-	-	\$54.95	-
LMI Housing Unit Participants	Participants	-	-	-	-	-	-	-	9,282	-
LMI Training Participants		-	-	-	-	-	-	-	582	-

¹⁴³ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁴⁴ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 91. Key Milestones for Marker Rate and Low Income New Construction

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018	Issue first competitive solicitation for Buildings of Excellence Competition.	
	2018	Contract with awardees for Buildings of Excellence Competition.	
	2018	Issue solicitation to launch Simplified Design and Tools: Model Measure Packages activity.	
	2018	Contract with awardees for Simplified Design and Tools: Model Measure Packages activity.	
	2018	Issue solicitation for Commercial Pilot Incentive Program.	
	2018	Contract with awardees for Commercial Pilot Incentive Program.	
	2018	Issue competitive RFP for Simplified Design and Tools: Online Platform development.	
	2018	Contract with awardees for Simplified Design and Tools: Online Platform development.	
	2018	Issue mini-bid for technical reviewers through existing NYSERDA umbrella contracts to begin Performance Analysis to assess project performance.	
	2018	Contract with technical reviewers for Performance Analysis to assess project performance.	
	2018	Issue solicitation for Simplified Design and Tools: Integrated Design Practices Advisor for first-time Developers.	
	2018	Contract with awardees for Simplified Design and Tools: Integrated Design Practices Advisor for first-time Developers.	
	2018	Issue second competitive solicitation for Buildings of Excellence Competition.	
	2019	Contract with awardees for second round of Buildings of Excellence Competition.	
	2019	Issue third competitive solicitation for Buildings of Excellence Competition.	

Table 91 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2019	Contract with awardees for third round of Buildings of Excellence Competition.	
	2020	Issue fourth competitive solicitation for Buildings of Excellence Competition.	
	2020	Contract with awardees for fourth round of Buildings of Excellence Competition.	

Table 92. Engaging New Markets Initiative Results^{145,146}

Approval Date: December 1, 2017

Anticipated Launch Date: Q3 2018

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2020)	% of Total Target through Initiative Completion (2020)
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	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Customer	Participants	-	-	-	-	-	-	-	11,344	-
Market Actor		-	-	-	-	-	-	-	258	-

¹⁴⁵ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁴⁶ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 93. Key Milestones for Engaging New Markets

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018	Develop a package of energy efficiency related trainings for market actors prior to pilot implementation.	
	2018	Deploy new content on NYSERDA website.	
	2018	Launch first of targeted consumer education and awareness campaigns.	
	2018	Implement initial pilot for contractors delivering home energy ratings as a sales tool.	
	2018	Implement initial pilot to imbed home energy ratings into real estate transactions.	
	2018	Implement initial pilot for leveraging relationships that upstream market actors have with contractors.	
	2019	Implement initial pilot for providing energy efficiency information to consumers from home improvement retailers and their contractor network.	
	2020	Develop resources, such as templates or toolkits, for market actors to support the business case for incorporating energy efficiency into their business models.	
	2021	Data collection and analysis from all pilots completed and results distributed to additional market actors to support intervention adoption.	
	2021	Kits available for communities to use in imbedding home energy ratings in the home sales process.	

4 Innovation and Research Initiative Specific Results

Table 94. Innovation and Research Initiative Budgets and Spending^{147,148,149}

Initiative	Budget Approved as of December 31, 2017 ^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	-	-	-	-	-	\$250,000
Grid Modernization Chapter							
DER Interconnection	\$6,300,000	\$881,279	\$1,763,902	\$93,088	\$2,738,269	43%	\$3,561,732
High Performing Grid	\$110,500,000	\$824,197	\$5,513,692	\$5,217,285	\$11,555,174	10%	\$98,944,826
Next Generation Power Electronics	\$16,700,000	\$3,322,578	\$13,377,422	-	\$16,700,000	100%	-
Grid Modernization Chapter Total	\$133,500,000	\$5,028,054	\$20,655,016	\$5,310,373	\$30,993,443	23%	\$102,506,557
Innovation Capacity and Business Development Chapter							
CleanTech Startup Growth	\$49,200,000	-	\$8,300,000	\$267,056	\$8,567,056	17%	\$40,632,944
Manufacturing Corps	\$12,000,000	\$8,000	\$49,000	-	\$57,000	0.5%	\$11,943,000
Novel Business Models and Offerings	\$16,100,000	-	-	-	-	-	\$16,100,000
Innovation Capacity and Business Development Chapter	\$77,300,000	\$8,000	\$8,349,000	\$267,056	\$8,624,056	11%	\$68,675,944
Building Innovation Chapter							
NextGen HVAC	\$15,000,000	\$96,359	\$128,229	\$50,000	\$274,588	1.8%	\$14,725,412
Building Innovation Chapter Total	\$15,000,000	\$96,359	\$128,229	\$50,000	\$274,588	1.8%	\$14,725,412
Clean Transportation Chapter							
Electric Vehicles	\$11,850,000	\$137,192	\$436,500	-	\$573,692	5%	\$11,276,308
Public Transportation and Electrified Rail	\$18,500,000	-	-	-	-	-	\$18,500,000
Clean Transportation Chapter Total	\$30,350,000	\$137,192	\$436,500	-	\$573,692	2%	\$29,776,308
Energy-Related Environmental Research Chapter							
Environmental Research	\$30,000,000	\$51,378	\$1,000,474	\$2,633,311	\$3,685,163	12%	\$26,314,837
Energy-Related Environmental Research Chapter Total	\$30,000,000	\$51,378	\$1,000,474	\$2,633,311	\$3,685,163	12%	\$26,314,837
Renewables Optimization Chapter			\$2,000,949				
Energy Storage Innovations	\$33,000,000	-	-	\$700,731	\$700,731	2%	\$32,299,269
Renewables Optimization Chapter Total	\$33,000,000	-	-	\$700,731	\$700,731	2%	\$32,299,269
NYS Cost Recovery Fee	\$8,102,031	\$115,144	-	-	\$115,144	1.4%	\$7,986,887
Innovation Capacity and Bus. Dev. Chapter Total	\$327,502,031	\$5,436,127	\$30,569,219	\$8,961,471	\$44,966,817	14%	\$282,535,214

Table notes are on the next page.

¹⁴⁷ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁴⁸ NYSERDA committed an additional \$7,695,480 to solicitations with upcoming due dates not included in the table above. When including these funds, NYSERDA committed 16% 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.

¹⁴⁹ The Market Characterization and Design Chapter line item includes funds to support overarching, non-initiative-specific evaluation studies.

- a Funds approved by DPS as of December 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 Sum of Expended Funds, Open Encumbrances, and Contract Pre-Encumbrances.
- f Percentage of the budget that has been committed.
- g Difference between Budget Approved Funds and Committed Funds.

Table 95. Distributed Energy Resource Interconnection Initiative Results^{150,151}

Approval Date: May 23, 2016

Launch Date: October 20, 2016

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	-	-	-	\$3.61	\$3.61	\$5.83	62%	\$5.83	62%
Participants	Participants	-	-	-	9	9	8	113%	13	69%

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

¹⁵⁰ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁵¹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 96. Key Milestones for Distributed Energy Resource Interconnection

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	Q3 2016	Contract with a consultant to conduct a comprehensive analysis of technology gaps and create a road map for advancement of the technology and tools necessary to support an advanced, integrated, high-performing grid in New York State.	Consulting contract established.
✓	Q3 2016	Contract with one or more research/consulting organizations to provide technical knowledge and support for DER interconnection improvements in New York State.	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 opportunity launched in October 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 via the NY Grid Modernization Advisory Committee.
✓	Q1 2017	Contract with awardees selected under the funding opportunity focused on innovation to reduce DER interconnection burdens in New York State.	The Investment Evaluation Panel for PON 3404 took place on January 25, 2017. Notification letters were sent to proposers on February 28, 2017 and staff entered into contract negotiations with proposals selected for award. Contracts have been established with proposals selected for award.
	Q2 2017	Grid Modernization Roadmap complete.	The final draft of the NY Grid Modernization Roadmap is undergoing review with additional stakeholders and is expected to be completed Q1 2018.

Table 97. High-Performing Grid Initiative Results^{152,153}

Approval Date: May 23, 2016

Launch Date: September 16, 2016

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	-	-	-	\$68.35	\$68.35	\$66.00	104%	\$309.00	22%
Participants	Participants	-	-	-	37	37	15	247%	64	58%

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

¹⁵² This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁵³ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 98. 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 a due date of January 11, 2017 (Round #1); June 28, 2017 (Round #2).
✓	2017	Enter into contracts for projects awarded under the broad competitive solicitation #1.	PON 3397 round 1 closed on January 11, 2017. Greenlight approved eleven (11) to contract with awardees under Round #1 granted April 2017. PON 3397 Round 2 closed on June 28, 2017. Greenlight approved 10 to contract with awardees under Round #2 granted September 2107. PON 3397 is now closed.
✓	2017	Identify near-term opportunities for applied research that are aligned with utility supplemental DSIPs and the NY Grid Modernization Roadmap.	Initial and Supplemental DSIP filings have been thoroughly reviewed. The NY Grid Modernization Roadmap is in progress with an anticipated completion in December 2017.
	2017	Issue targeted competitive solicitation #2, guided by utility supplemental DSIPs and the NY Grid Modernization Roadmap.	Grid Modernization Roadmap in progress and expected to be completed in Q1 2018. Solicitation expected to be issued Q1 2018.
	2017	Enter into contracts for projects awarded under the targeted competitive solicitation #2.	
	2018	Identify technology gaps necessary to support community grid operation based on completed NY Prize Stage 2 evaluations.	
	2018	Issue broad competitive solicitation #3.	The solicitation is expected to be released in Q1 2018.
	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.	

Table 98 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2020	Issue broad competitive solicitation #7.	
	2021	Enter into contracts for projects awarded under the broad competitive solicitation #7.	
	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 99. Power Electronics Manufacturing Consortium Initiative Results^{154,155}

Approval Date: July 19, 2017

Launch Date: October 13, 2017

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	-	-	-	\$80.00	\$80.00	\$47.00	170%	\$80.00	100%
Participants	Participants	-	-	-	12	12	4	300%	12	100%

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

¹⁵⁴ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁵⁵ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 100. Key Milestones for Power Electronics Manufacturing Consortium

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Business plan completed and submitted to NYSERDA for review.	Contract was delayed by six months and therefore the business plan should be completed by mid-2018.
	2017	Consortium expanded to include at least four partner companies/customers.	Contract was delayed by six months and therefore the business plan should be completed by mid-2018.
	2018	Contract with SUNY Research Foundation for the PEMC.	
	2018	Production capacity fab infrastructure complete.	
	2018	Three successive batches of SiC MOSFET wafers fabricated.	
	2018	Quality management system implemented.	
	2018	ISO-9001 certification complete.	
	2018	AEC-Q101 qualification complete.	
	2018	Consortium expanded to include at least eight partner companies/customers.	
	2019	Consortium expanded to include at least 12 partner companies/customers.	

Table 101. Cleantech Startup Growth Initiative Results^{156,157}

Approval Date: May 23, 2016

Launch Date: October 12, 2016

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	-	-	-	\$124.50	\$124.50	\$112.50	111%	\$442.90	28%
Participants	Participants	-	-	-	-	-	124	-	4,307	-

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

¹⁵⁶ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁵⁷ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 102. Key Milestones for Cleantech Startup Growth Incubators

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	First competitive solicitation launched.	Solicitation was released on October 12, 2016. Round 1 due date was December 1, 2016. Round 2 opened October 2, 2017 and closes November 29, 2017.
✓	2017	Awards from first solicitation are contracted.	Scoring Committee for Round 1 was held on January 11, 2017. Presented Scoring Committee results and team recommendations at Greenlight on February 14, 2017. Four awarded contracts were fully executed by August 31, 2017.
✓	2017	Second competitive solicitation launched.	Announced as part of Round 1. Round 2 opened October 2, 2017 and closes November 29, 2017.
✓	Starting 2017	Networking event held.	Networking events are held as part of the routine operation of the incubator. Networking events have been held as planned throughout 2017.
✓	Starting 2017	Entrepreneur boot camp held.	Entrepreneurial-type of bootcamps/workshops are held throughout the operation of the incubator. Entrepreneur boot camps have been held as planned throughout 2017.
	2018	Awards from second solicitation are contracted.	Round 2 closed November 29, 2017. Awards will be made Q1 2018.

Table 103. Key Milestones for Cleantech Startup Growth Ignition Grants

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Formal Voice of Customer exercise is completed.	Voice of Customer exercise has been initiated and will ramp up after awards are announced and contracts are fully executed for Incubators funded in Round 1. Companies working with Incubators awarded in Rounds 1 and 2 will be eligible for Ignition Grants.
	2017	Solicitation launched.	Solicitation to be launched Q1 2018.
	2017	Investment Committee established.	Investment Committee to be established Q1 2018.
	Starting 2017	Investment Committee Meetings held.	Investment committee meetings will be held once the investment committee is fully established and the solicitation is launched, which is expected to be in Q1 2018.
	Starting 2017	Ignition grant awards issued on ongoing basis.	Ignition grants solicitation is expected to launch in Q1 2018.

Table 104. Key Milestones for Cleantech Startup Growth Geographic Coverage

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	Competitive solicitation launched.	Solicitation was released on October 12, 2016. Round 1 due date was December 1, 2016.
✓	2017	Awards from solicitation are contracted (~6 months following solicitation due date).	Scoring Committee for Round 1 was held on January 11, 2017. Presented Scoring Committee results and Team recommendations at Greenlight on February 14, 2017. The one award under this milestone was fully executed by August 31, 2017.
✓	2017	Inventory of Entrepreneurial Assets in Southern Tier completed.	An inventory of assets was completed during the initiation phase of 76West (PPR for RFQL 3101). Following selection of Cornell to operate the competition, NYSERDA relied on Cornell to maintain many of the relationships with these assets and to add others to the inventory. The usefulness of the inventory is in the management of the 76West program. This function has essentially been internalized within the work of Cornell.
	2017	Entrepreneurship Training Programs established.	Agreements with two entities to deliver entrepreneurship training has been executed. No training is planned at this time.
	Starting 2017	Networking Events held.	Ongoing networking events have already been held and more are planned for future dates. Networking events have been held as planned throughout 2017.

Table 105. Key Milestones for Cleantech Startup Growth Proof-of-Concept Centers (POCCs)

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018	Competitive solicitation for POCCs launched.	
	2018	Award(s) from solicitation for POCCs contracted.	
	2019	Competitive solicitation for POCC support services launched.	
	2019	Award(s) from solicitation for POCC support services contracted.	

Table 106. Key Milestones for Cleantech Startup Growth Entrepreneurs-In-Residence

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018	Competitive solicitation launched.	
	2018	Award(s) from solicitation contracted.	
	2018	Company Reviews initiated.	
	2018	Company Engagements initiated.	
	2018	Office Hours and Expert Presentations initiated.	
	Each year starting in 2018	Practice Pitch, SWAT Team, and Other Engagements initiated.	

Table 107. Key Milestones for Cleantech Startup Growth Investor, Corporate, and Customer Engagement

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018	Competitive solicitations launched.	
	2018	Awards from solicitations contracted.	

Table 108. Novel Business Models and Offerings^{158, 159}

Approval Date: December 1, 2017

Anticipated Launch Date: Q1 2018

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	-	-	-	-	-	-	-	\$168.40	-
Participants	Participants	-	-	-	-	-	-	-	33	-

¹⁵⁸ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁵⁹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 109. Key Milestones for Novel Business Models and Offerings

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018	Release solicitation for New Business Models and Offerings proposals for both scaling and validation support.	
	2018	Contract with first-round NBMO awardees.	
	2018	Contract with second-round NBMO awardees.	
	2019	Conduct preliminary program process assessment, examining the distribution of proposers, scope of proposed impact, and marketing and selection processes through first two rounds, and revise the solicitation as necessary.	
	2020	Re-release solicitation if necessary for the third round.	
	2020	Contract with third-round NBMO awardees.	
	2020	Perform program assessment to determine continuation.	
	2020	Contract with fourth-round NBMO awardees, if the program is continued.	

Table 110. Manufacturing Corps Initiative Results^{160, 161}

Approval Date: February 14, 2017

Launch Date: June 29, 2017

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2020)	% of Total Target through Initiative Completion (2020)
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	-	-	-	-	-	-	-	\$60.00	-
Participants	Participants	-	-	-	-	-	-	-	450	-

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

¹⁶⁰ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁶¹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 111. Key Milestones for Manufacturing Corps

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Competitive solicitation launched for pilot sites.	Solicitation launched June 29, 2017. Proposals were due September 14, 2017.
	2017	Awards from RFQ are contracted.	This milestone is no longer applicable and will be removed through an investment plan revision in the future.
	2018	Awards from pilot site solicitation are contracted. Pilot program launched.	
	2020	Pilot program ends. Metrics reviewed based on pilot program performance and adjustments identified to implement in statewide solicitation.	
	2020	Statewide competitive solicitation based on pilot program launched.	
	2020	Awards from statewide solicitation are contracted. Statewide program launched.	
	2023	NYSERDA investment in statewide program ends. Metrics reviewed based on statewide program performance.	

Table 112. NextGen HVAC Initiative Results^{162,163}

Approval Date: August 17, 2016

Launch Date: June 28, 2017

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	-	-	-	-	-	\$20.00	-	\$75.00	-
Participants	Participants	-	-	-	-	-	5	-	25	-

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

¹⁶² This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁶³ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 113. Key Milestones for NextGen HVAC

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2016	Issue RFI to evaluate and establish technology challenge areas and targets.	RFI issued January 13, 2017, Informational Webinar held on February 1, 2017 (60+ attendees), RFI submissions received on February 22, 2017 (32 submissions)
✓	2016	Issue first technology challenge.	NextGen HVAC Technology Challenge (PON 3517) developed and entered into collaboration on February 28, 2017. PON 3517 issued on June 28, 2017 with four identified challenges: Air-Source Heat Pumps, Advanced HVAC Controls, Compressor-less Cooling and Ground Heat Exchanger. Informational webinar held on July 24, 2017 with 99 unique attendees, including a viewing group organized by the Syracuse CoE. On August 3, 2017 66 concept papers were received, of which four were deemed late for a total of 62. Scoring committees are scheduled with the evaluation of concepts papers to be completed by September 22, 2017.
	2017	Contract projects from first technology challenge.	Contracts expected in Q1 2018.
	2017	Review portfolio of activities, solicit market input, and reassess technology challenges areas and targets.	Milestone to be completed in Q1 2018 after award notifications from Round 1 are made and the second scheduled technology announcement scheduled for March 2018.
	2017	Issue second technology challenge.	The second of four challenges is scheduled to be announced on March 22, 2018.
	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 114. Electric Vehicles Initiative: EV Innovation Results^{164,165}

Approval Date: August 17, 2016

Launch Date: September 15, 2017

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	-	-	-	\$1.37	\$1.37	\$7.20	19%	\$31.70	4%
Participants	Participants	-	-	-	3	3	8	38%	33	9%

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

¹⁶⁴ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁶⁵ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 115. Key Milestones for Electric Vehicles Initiative: EV Innovation

Complete ✓	Time Frame	Milestone	Explanation of Progress
✓	2017	Support the launch of new business offerings for charging station leasing.	NYSERDA recently finalized an MOU with NYPA to have them offer on-bill financing of EV charging stations to their Recharge NY customers (private sector companies). The MOU was signed in December 2017 and the joint program is underway.
✓	2017	Issue first competitive solicitation for the development and demonstration of EV-enabling technologies.	A new PON (PON 3578), including opportunities for product development and demonstration projects, was issued in November 30, 2017, with proposals due in two rounds, starting in February 2018.
	2017	Contract with projects awarded in first competitive solicitation for the development and demonstration of EV-enabling technologies.	This activity will begin once proposals are received and awards made for PON 3578.
✓	2017	Initiate aggregation pilots for EVs and EV charging stations, which will begin engaging customers and facilitating initial bulk purchases.	<p>The above-mentioned program with NYPA aggregates purchases of EV charging stations with NYPA's public and private sector customers. NYSERDA is also developing a program for EV charging stations that will be released in 2018.</p> <p>For vehicle aggregation, The Department of Environmental Conservation (DEC) has continued to lead aggregate purchases of EVs for public fleets. NYSERDA's contractor Sustainable Hudson Valley worked on an aggregate purchase for individuals in 2017, which facilitated over 100 aggregated vehicle purchases.</p>
	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.	

Table 115 continued

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2018	Fast-charging station network expanded to 30 locations statewide along major interstate corridors.	NYSERDA is actively investigating ways to expand DC fast charger (DCFC) networks in NYS, including establishing programs to support installations, working with Electrify America, investigating ways to reduce the impact of demand charges on DCFC economics, and enhancing planning for DCFCs. The Transportation and Climate Initiative conducted a geographical analysis for DCFCs to identify priority locations and NYS is analyzing major travel corridors to determine which are highest priority for DCFCs.
✓	2018	Completion of first collaborative consumer awareness activities.	<p>Consumer awareness activities are underway. Initial collaborative partnerships underway in the Hudson Valley (through Sustainable Hudson Valley - completed), Syracuse (through Clean Cities - completed), and Rochester (through the Electrification Coalition - underway) and have shown strong results to date.</p> <p>NYSERDA and other Northeast states worked with automakers to develop a plan for a multi-state brand-neutral EV awareness campaign, which was completed in April 2017. States and automakers are planning to launch the campaign in 2018.</p>
	2019	Issue third competitive solicitation for the development and demonstration of EV-enabling technologies.	

Table 116. Public Transportation and Electrified Rail Initiative Results^{166,167}

Approval Date: October 3, 2017

Anticipated Launch Date: Q2 2018

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	-	-	-	-	-	-	-	\$42.00	-
Participants	Participants	-	-	-	-	-	-	-	33	-

¹⁶⁶ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁶⁷ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 117. Key Milestones for Public Transportation and Electrified Rail

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2017	Issue first competitive solicitation for the development and demonstration of public transportation technologies.	NYSERDA is beginning stakeholder engagement and identification of focus areas the first solicitation under this investment plan.
	2018	Contract with projects awarded in first competitive solicitation for the development and demonstration of public transportation technologies.	
	2018	Issue second competitive solicitation for the development and demonstration of public transportation technologies.	
	2018	Initiate project to identify ways to update transit agency procurement processes so that they explicitly value energy savings from efficient transit technologies.	
	2019	Contract with projects awarded in second competitive solicitation for the development and demonstration of public transportation technologies.	
	2019	Issue third competitive solicitation for the development and demonstration of public transportation technologies.	
	2020	Contract with projects awarded in third competitive solicitation for the development and demonstration of public transportation technologies.	
	2020	Issue fourth competitive solicitation for the development and demonstration of public transportation technologies.	
	2021	Contract with projects awarded in fourth competitive solicitation for the development and demonstration of public transportation technologies.	

Table 118. Energy Related Environmental Research^{168, 169}

Approval Date: February 14, 2017

Launch Date: February 15, 2017

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 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	-	-	-	\$1.70	\$1.70	\$2.65	64%	\$7.50	23%
Participants	Participants	3	-	3	18	21	35	60%	100	21%

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

¹⁶⁸ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁶⁹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 119. 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.	Two solicitations were issued in 2017 Q3 and are in the final stages of approval. Contracting of new agreements, contract modifications and research planning is ongoing, including the development of \$3.6M in single-source agreements for long-term monitoring projects.
	2017	Projects contracted from solicitations.	Two solicitations were issued in 2017 Q3 and contracting from the solicitations is anticipated to be completed in 2018 Q1.
✓	2017	Outreach, technology transfer, and briefings to share research findings.	Outreach supported with other funding sources continues. Dissemination of research findings are ongoing via workshops, briefings and similar.
	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 120. Energy Storage Technology and Product Development Initiative Results^{170, 171}

Approval Date: March 27, 2017

Launch Date: June 21, 2017

Innovation and Research Initiative	Units	Completed Projects through September 30, 2017 with Adjustments	Completed Projects through 10/1/17 - 12/31/17	Total Completed Projects through December 31, 2017	Current Pipeline Through December 31, 2017 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Target Through Q4 2017	% of Cumulative Current Target Through Q4 2017	Total Target through Initiative Completion (2025)	% of Total Target through Initiative Completion (2025)
Energy Efficiency	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
	MMBtu Annual	-	-	-	-	-	*	-	*	-
	MMBtu Lifetime	-	-	-	-	-	*	-	*	-
Renewable Energy	MW	-	-	-	-	-	*	-	*	-
	MWh Annual	-	-	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	MW	-	-	-	-	-	*	-	*	-
	Annual Tons	-	-	-	-	-	*	-	*	-
Customer Bill Savings (millions)	Lifetime Tons	-	-	-	-	-	*	-	*	-
	Annual Dollars	-	-	-	-	-	*	-	*	-
Private Investment (millions)	Lifetime Dollars	-	-	-	-	-	*	-	*	-
	Dollars	-	-	-	\$3.50	\$3.50	\$9.10	39%	\$165.00	2%
Participants	Participants	-	-	-	2	2	8	25%	118	2%

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

¹⁷⁰ This report reflects direct benefits from programs. Indirect benefits are not reflected because it will take time for the benefits to be realized.

¹⁷¹ Cumulative Current Target through Q4 2017 represents 100% of the 2016 annual target plus 100% of the 2017 annual target. Actual progress may not be equal each quarter of a calendar year.

Table 121. Key Milestones for Energy Storage Technology and Product Development

Complete	Time Frame	Milestone	Explanation of Progress
✓	2017	Issue first competitive solicitation.	PON 3585 Energy Storage Technology and Product Development was issued on June 21, 2017.
	2017	Contract projects from first competitive solicitation.	Contracting for the three awarded projects from the first solicitation is in process.
✓	2017	Review portfolio of activities, solicit market input, and reassess technology challenge areas and targets.	PON 3585 - Energy Storage Technology and Product Development round 1 and round 2 results to date have informed the design of the 4th competitive solicitation for this plan. PON 3585-R (Open Enrollment) will be released in February 2018. Investment plan targets will be updated in first IP submission cycle in 2018.
✓	2017	Issue second competitive solicitation.	PON 3585 - Energy Storage Technology and Product Development Round 2 concept papers have been received and reviewed by scoring committee. Fourteen concept paper submitters will be invited to submit proposals
	2018	Contract projects from second competitive solicitation.	PON 3585 Round 2 Concept Paper scoring committee meeting was completed January 10, 2018. Fourteen invited proposals will be due early March 2018.
	2018	Review portfolio of activities, solicit market input, and reassess technology challenge areas and targets.	
	2018	Issue third competitive solicitation.	PON 3585 expected to be released in February 2018.
	2019	Contract projects from third competitive solicitation.	
	2019	Review portfolio of activities, solicit market input, and reassess technology challenge areas and targets.	
	2019	Issue fourth competitive solicitation.	

Appendix A: Table of Investment Plan Approvals¹⁷²

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

¹⁷² This report contains only the progress of initiatives approved as of September 30, 2017.

Table A-1 continued

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

Table A-1 continued

Technical Services Public Transportation and Electrified Rail	Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters	October 3, 2017
Code to Zero New Construction Fuel Cells Engaging New Markets Clean Energy Advanced Market Performance (AMP) Challenge Clean Energy Siting and Soft Cost Reduction Advancing Agricultural Energy Technologies K-12 Schools Novel Business Models and Offerings	Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters	December 1, 2017
Low-Income Community Solar	Matter 16-00681 - DPS Approval of NYSERDA's CEF Investment Plan Chapters	December 6, 2017

NYSERDA, a public benefit corporation, offers objective information and analysis, innovative programs, technical expertise, and support to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce reliance on fossil fuels. NYSERDA professionals work to protect the environment and create clean-energy jobs. NYSERDA has been developing partnerships to advance innovative energy solutions in New York State since 1975.

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