



NYSERDA

Clean Energy Fund Quarterly Performance Report Through September 30, 2016

Final Report

November 2016

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.

NYSERDA Record of Revision

| Document Title |
|---|
| Clean Energy Fund Quarterly Performance Report Through September 30, 2016 |

| Revision Date | Description of Changes | Revision on Page(s) |
|-------------------|------------------------|---------------------|
| November 15, 2016 | Original Issue | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Clean Energy Fund Quarterly Performance Report Through September 30, 2016

Final Report

Prepared by:

New York State Energy Research and Development Authority

Albany, NY

November 2016

Table of Contents

| | | |
|----------|--|-----------|
| 1 | Overview | 1 |
| 2 | Resource Acquisition Transition Initiative Specific Results | 14 |
| 3 | Market Development Initiative Specific Results | 34 |
| 4 | Innovation & Research Initiative Specific Results | 71 |

List of Tables

| | | |
|-----------|--|----|
| Table 1. | Key Insights, Progress, and Adjustments Per Initiative Under Consideration..... | 3 |
| Table 2. | CEF Minimum Projected Benefits 2016-2025 and Progress to Date, Commitment Basis (in millions)..... | 10 |
| Table 3. | Market Development and Innovation & Research Portfolio Level Budgets and Spending | 11 |
| Table 4. | Market Development and Innovation & Research Portfolio Committed Benefits Progress to Date - Annual | 12 |
| Table 5. | Market Development and Innovation & Research Portfolio Committed Benefits Progress to Date - Lifetime | 13 |
| Table 6. | Resource Acquisition Transition Initiative Level Budgets and Spending | 14 |
| Table 7. | Commercial Resource Acquisition Transition and FlexTech Initiative Results | 16 |
| Table 8. | Industrial Resource Acquisition Transition Initiative Results | 17 |
| Table 9. | Agriculture Resource Acquisition Transition Initiative Results..... | 18 |
| Table 10. | Multifamily Market Rate Resource Acquisition Transition Initiative Results..... | 19 |
| Table 11. | Single Family Market Rate Resource Acquisition Transition Initiative Results | 20 |
| Table 12. | Low- to Moderate-Income Single Family Low-Income Resource Acquisition Transition Initiative Results..... | 21 |
| Table 13. | Low- to Moderate-Income Single Family Moderate Income Resource Acquisition Transition Initiative Results..... | 22 |
| Table 14. | Low- to Moderate-Income Multifamily Resource Acquisition Transition Initiative Results | 23 |
| Table 15. | Commercial New Construction Resource Acquisition Transition Initiative Results | 24 |
| Table 16. | Low Rise New Construction Market Rate Resource Acquisition Transition Initiative Results | 25 |
| Table 17. | Low Rise New Construction Low- to Moderate-Income Resource Acquisition Transition Initiative Results..... | 26 |
| Table 18. | Multifamily New Construction Market Rate Resource Acquisition Transition Initiative Results | 27 |
| Table 19. | Multifamily New Construction Low- to Moderate-Income Resource Acquisition Transition Initiative Results..... | 28 |
| Table 20. | Anaerobic Digesters Resource Acquisition Transition Initiative Results | 29 |

| | |
|---|----|
| Table 21. Fuel Cells Resource Acquisition Transition Initiative Results | 30 |
| Table 22. Small Wind Resource Acquisition Transition Initiative Results..... | 31 |
| Table 23. Solar Thermal Resource Acquisition Transition Initiative Results | 32 |
| Table 24. Combined Heat & Power Resource Acquisition Transition Initiative Results..... | 33 |
| Table 25. Market Development Initiative Budgets and Spending | 34 |
| Table 26. Real Estate Tenant Initiative Results | 36 |
| Table 27. Key Milestones for Real Estate Tenant..... | 37 |
| Table 28. Real Time Energy Management (RTEM) Initiative Results..... | 39 |
| Table 29. Key Milestones for Real Time Energy Management..... | 40 |
| Table 30. Reforming the Energy Vision (REV) Campus Challenge Initiative Results..... | 43 |
| Table 31. Key Milestones for REV Campus Challenge..... | 44 |
| Table 32. Continuous Energy Improvement Initiative On-Site Energy Manager Results..... | 45 |
| Table 33. Key Milestones for Continuous Energy Improvement for On-Site Energy Manager ... | 46 |
| Table 34. Continuous Energy Improvement Initiative Strategic Energy Management Results ... | 47 |
| Table 35. Key Milestones for Continuous Energy Improvement Strategic Energy Management | 48 |
| Table 36. Clean Energy Communities Initiative Results | 49 |
| Table 37. Key Milestones for Clean Energy Communities..... | 50 |
| Table 38. Offshore Wind Master Plan Initiative Results..... | 51 |
| Table 39. Key Milestones for Offshore Wind Master Plan | 52 |
| Table 40. Offshore Wind Pre-Development Activities Initiative Results | 53 |
| Table 41. Key Milestones for Offshore Wind Pre-Development Activities | 54 |
| Table 42. REV Connect Initiative Results..... | 55 |
| Table 43. Key Milestones for REV Connect | 56 |
| Table 44. Reducing Barriers to Deploying Distributed Energy Storage Initiative Results..... | 57 |
| Table 45. Key Milestones for Reducing Barriers to Deploying Distributed Energy Storage..... | 58 |
| Table 46. Electric Vehicles Rebate Initiative Results..... | 60 |
| Table 47. Key Milestones for Electric Vehicles Rebate..... | 60 |
| Table 48. 2030 Greenhouse Lighting and Systems Engineering (GLASE) Initiative Results | 61 |
| Table 49. Key Milestones for Greenhouse Lighting and Systems Engineering (GLASE)..... | 62 |
| Table 50. RetrofitNY Initiative Results..... | 63 |
| Table 51. Key Milestones for RetrofitNY..... | 64 |
| Table 52. REVitalize Initiative Results..... | 65 |
| Table 53. Key Milestones for REVitalize..... | 66 |
| Table 54. Low- Income Forum on Energy Initiative Results..... | 66 |
| Table 55. Key Milestones for Low-Income Forum on Energy | 67 |
| Table 56. Healthy Homes Feasibility Study | 68 |
| Table 57. Industry Partnerships Initiative Results..... | 69 |
| Table 58. Key Milestones for Industry Partnerships | 70 |
| Table 59. Innovation & Research Initiative Budgets and Spending, | 71 |
| Table 60. Distributed Energy Resource Interconnection Initiative Results | 72 |
| Table 61. Key Milestones for Distributed Energy Resource Interconnection..... | 73 |
| Table 62. High Performing Grid Initiative Results | 74 |
| Table 63. Key Milestones for High Performing Grid..... | 75 |

| | |
|--|----|
| Table 64. Cleantech Startup Growth Initiative Results..... | 76 |
| Table 65. Key Milestones for Cleantech Startup Growth Incubators..... | 77 |
| Table 66. Key Milestones for Cleantech Startup Growth Ignition Grants | 77 |
| Table 67. Key Milestones for Cleantech Startup Growth Geographic Coverage..... | 78 |
| Table 68. NextGen HVAC Initiative Results | 79 |
| Table 69. Key Milestones for NextGen HVAC | 80 |
| Table 70. Electric Vehicles Innovation Initiative Results | 81 |
| Table 71. Key Milestones for Electric Vehicles Innovation..... | 82 |

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 percent of the State's electricity come from renewable energy sources by 2030, while reshaping the State's energy efficiency, clean energy, and energy innovation programs.

The CEF offers solutions to:

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

The CEF Order was issued on January 21, 2016.¹ This order required quarterly reporting for the Market Development and Innovation and Research Portfolios about:

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

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

This report represents quarterly activity through September 30, 2016, and includes achievements of the transition programs that were included in the Resource Acquisition Chapter, which was approved by the New York State Department of Public Service (DPS) on February 29, 2016.² Several initiatives in the Market Development and Innovation and Research Chapters were approved by DPS on May 23, 2016,³ August 17, 2016,⁴ August 31, 2016,⁵ and September 15, 2016⁶ as well.

As of September 30, 2016, the Clean Energy Fund's Transitional Programs have been in operation for seven months (approved as of February 29, 2016) and the first wave of new initiatives for four months (approved as of May 23, 2016). The progress of these initiatives are represented throughout this report, and the table below gives insight into each initiative's status beyond what the reported numbers convey during this ramp-up period. In most cases, launched initiatives are achieving the progress anticipated, and where they are not, NYSERDA has made programmatic adjustments to accelerate progress. Notable exceptions to forecast are the Commercial Resource Acquisition Transition initiative, which has been changed to simplify and clarify the offering to the market, and the Multifamily Resource Acquisition Transition initiatives which is being revamped.

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

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

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

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

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

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

| Initiative | Key Insights, Progress, and Adjustments under Consideration |
|--|--|
| Resource Acquisition Transition | |
| <p>Table 7: Commercial Resource Acquisition Transition and FlexTech</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • Commercial Implementation Assistance, a program designed to complement utility programs in buying down costs of energy efficiency measures, was redesigned and relaunched in October based on feedback from service providers, customers, and utilities. The initial program design did not yield projects and was revamped and made simpler for the market. • FlexTech is lagging forecasts, but is projected to achieve overall program goals as activity accelerates. Companies such as Energy Service providers and engineering firms, that had leveraged FlexTech under different rules under EEPS, are reincorporating the program into their business development cycle. • Overall attainment of goals is forecasted to lag initial projections by three calendar quarters. |
| <p>Table 8: Industrial Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • Despite commitments of only 21% of the initial 12-month MWh goal through the current quarter, the incentive program pipeline is robust, the program is on a trajectory to achieve goals; this progression is reflective of the time it has taken for the program offering to cycle through corporate planning cycles as NYSERDA has re-engaged the market. • The program is unlikely to achieve 12-month MMBtu goals given softer return on investment for gas projects due to gas pricing; NYSERDA is aggressively engaged in outreach to potential participants, and also adding focus on oil customers now eligible under CEF. |
| <p>Table 9: Agriculture Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • The incentive program pipeline is robust, and the program is on pace to exceed initial 12-month goals for MWh. • The program is unlikely to achieve MMBtu 12-month goals given softer return on investment for gas projects due to gas pricing and customer mix (more farms and fewer greenhouses); NYSERDA is targeting producers (greenhouses, dairy) that use hot water extensively in their process. |
| <p>Table 10: Multifamily Market Rate Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • The program, as initially launched, had not yielded projects. Adjustments to the program are being rolled out in November to make it simpler and more accessible to the market. |
| <p>Table 11: Single Family Market Rate Resource Acquisition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • The program is achieving goals according to plan. |

Table 1 continued

| Initiative | Key Insights, Progress, and Adjustments under Consideration |
|---|--|
| Resource Acquisition Transition | |
| <p>Table 12: Low to Moderate Income Single Family Low-Income Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • The program is achieving goals according to plan. |
| <p>Table 13: Low to Moderate Income Single Family Moderate-Income Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • The program is achieving goals at a faster pace than was planned. |
| <p>Table 14: Low- to Moderate-Income Multifamily Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • The modified program is currently being redesigned to be simpler and more attractive for the market. NYSERDA has worked extensively with key market participants to address these issues, and a filing to revise and relaunch the program will be submitted to DPS in the near term. |
| <p>Table 15: Commercial New Construction Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • The program is achieving goals at a faster pace than was planned. |
| <p>Table 16: Low Rise New Construction Market Rate Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • The program is achieving goals according to plan. |

Table 1 continued

| Initiative | Key Insights, Progress, and Adjustments under Consideration |
|---|---|
| Resource Acquisition Transition | |
| <p>Table 17: Low Rise New Construction Low- to Moderate-Income Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • The program is achieving goals according to plan. |
| <p>Table 18: Multifamily New Construction Market Rate Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • The program was launched in August 2016 and is on target to achieve activity and outcomes according to plan. |
| <p>Table 19: Multifamily New Construction Low- to Moderate-Income Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • The program was launched in August 2016 and is on target to achieve activity and outcomes according to plan. |
| <p>Table 20: Anaerobic Digesters Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • Incentive program launched in July 2016. The program is achieving goals according to plan. • Working with stakeholders to identify market development strategies for 2017, capitalizing on potential for food waste digestion. |
| <p>Table 21: Fuel Cells Resource Acquisition Transition</p> <p>Approval Date: February 29, 2016</p> | <ul style="list-style-type: none"> • NYSERDA is working with stakeholders to identify higher impact strategies to reduce soft costs for fuel cell development, for launch in 2017. • Given market feedback on market potential, NYSERDA is no longer proceeding with the transition program filed in February 2016. A revised Investment Plan will be submitted as soon as practical. |

Table 1 continued

| Initiative | Key Insights, Progress, and Adjustments under Consideration |
|---|--|
| Resource Acquisition Transition | |
| Table 22: Small Wind Resource Acquisition Transition Approval Date: February 29, 2016 | <ul style="list-style-type: none"> • The program is achieving goals according to plan. |
| Table 23: Solar Thermal Resource Acquisition Transition Approval Date: February 29, 2016 | <ul style="list-style-type: none"> • The program is achieving goals according to plan. |
| Table 24: Combined Heat and Power (CHP) Resource Acquisition Transition and Power Approval Date: February 29, 2016 | <ul style="list-style-type: none"> • Incentive program launched in March 2016. Market growth proceeding slowly by steadily. • The PSC’s extension of the Indian Point Energy Center Demand Management Program (IPEC/DMP) fund eligibility (to December 31, 2016) has enabled NYSERDA to expand funding available for CHP projects, but will extend the timeline for achieving CEF goals, given the allocation methods used for the two programs. Collectively, 27 MW of CHP commitments have been approved through September 31, 2016, of which 10.8 MW are associated with IPEC/DMP funds and 16.2 MW with the CEF. |
| Market Development | |
| Tables 26-27: Real Estate Tenant Approval Date: May 23, 2016 | <ul style="list-style-type: none"> • On track to achieve implementation milestones. • Achievements submitted for 2016 represent a lag in benefits from original projections, in part due to the timing of program launch (launched July 2016). • Attainment of stated 2016 (i.e., first year) targets is projected approximately one year after launch in Q2 2017. |
| Table 28-29: Real Time Energy Management (RTEM) Approval Date: May 23, 2016 | <ul style="list-style-type: none"> • On track to achieve implementation milestones. • Participation by service providers and pipeline of potential projects is robust and proceeding according to plan. • Adjusted incentives to account for high-impact use cases (RTEM as a service) that were not part of the original design. • Achievements for 2016 represent a lag in benefits from original projections. Attainment of stated 2016 (i.e., first year) targets is projected approximately one year after launch in Q2 2017 (launched June 2016). |
| Tables 30-31: Reforming the Energy Vision (REV) Campus Challenge Approval Date: May 23, 2016 | <ul style="list-style-type: none"> • On track to achieve milestones. |

Table 1 continued

| Initiative | Key Insights, Progress, and Adjustments under Consideration |
|--|--|
| Resource Acquisition Transition | |
| Tables 32-33: Continuous Energy Improvement On-Site Energy Manger Approval Date: May 23, 2016 | <ul style="list-style-type: none"> • On track to achieve implementation milestones. • Pipeline of interested participants emerging. • Achievements for 2016 represent a lag in benefits from original projections due to timing of launch (launched September 2016). • Attainment of stated 2016 (i.e., first year) targets is projected approximately by Q1 2017. |
| Tables 34-35: Continuous Energy Improvement Strategic Energy Manger Approval Date: May 23, 2016 | <ul style="list-style-type: none"> • Program expected to launch in November. • Marketing upcoming program with key managers / C-suite executives ahead of launch. • Achievements for 2016 represent a lag in benefits from original projections due to timing of launch. • Attainment of stated 2016 (i.e., first year) targets is projected approximately by Q1 2017. |
| Tables 36-37: Clean Energy Communities Initiative Approval Date: May 23, 2016 | <ul style="list-style-type: none"> • On track to achieve implementation milestones. • Since launch in August, strong interest among communities including over 50 actions from over 30 communities • Achievements for 2016 represent a lag in benefits from original projections due to timing of launch (launched August 2016). • Attainment of stated 2016 (i.e., first year) targets is projected approximately one year after launch in Q3 2017. |
| Tables 38-39: Off-Shore Wind Master Plan Approval Date: May 23, 2016 | <ul style="list-style-type: none"> • On track to achieve milestones. • Blueprint completed and published. Stakeholder engagement commenced. |
| Tables 40-41: Off-Shore Wind Pre-Development Approval Date: May 23, 2016 | <ul style="list-style-type: none"> • On track to achieve milestones. • Planning underway for procurements and deploying wind resource measurement systems, site specific environmental and sea floor studies. |
| Tables 42-43: REV Connect Approval Date: May 23, 2016 | <ul style="list-style-type: none"> • On track to achieve milestones. • Contractor selected, draft materials under development, and initial customer surveys started. |

Table 1 continued

| Initiative | Key Insights, Progress, and Adjustments under Consideration |
|---|--|
| Resource Acquisition Transition | |
| Tables 44-45: Reducing Barriers to Energy Storage Deployment Approval Date: August 17, 2016 | <ul style="list-style-type: none"> • On track to achieve milestones. • Solicitation drafted and issued. Battery safety tests are underway. |
| Tables 46-47: Electric Vehicles Rebate Approval Date: August 17, 2016 | <ul style="list-style-type: none"> • On track to achieve milestones. • Expected to launch rebate program in Q4 2016. |
| Table 48-49: Greenhouse Lighting and Systems Engineering (GLASE) Approval Date :September 15, 2016 | <ul style="list-style-type: none"> • Expected to launch in January 2017 • Pre-launch and planning activities ongoing |
| Table 50-51: RetrofitNY Approval Date :August 31, 2016 | <ul style="list-style-type: none"> • Ongoing pre-launch and planning activities proceeding as planned. |
| Table 52-53: REVitalize Approval Date :August 31, 2016 | <ul style="list-style-type: none"> • Ongoing pre-launch and planning activities proceeding as planned. |
| Table 54-55: Low-Income Forum on Energy Approval Date :August 31, 2016 | <ul style="list-style-type: none"> • Ongoing pre-launch and planning activities proceeding as planned. |
| Table 56: Healthy Homes Feasibility Study Approval Date :August 31, 2016 | <ul style="list-style-type: none"> • Ongoing pre-launch and planning activities proceeding as planned. |
| Table 57-58: Industry Partnerships Approval Date :September 15, 2016 | <ul style="list-style-type: none"> • Ongoing pre-launch and planning activities proceeding as planned. |

Table 1 continued

| Initiative | Key Insights, Progress, and Adjustments under Consideration |
|--|---|
| Innovation and Research | |
| Tables 60-61: Distributed Energy Resource Interconnection Approval Date: May 23, 2016 | <ul style="list-style-type: none"> • On track to achieve milestones. • Contracted with Electric Power Research Institute (EPRI) to analyze technology gaps and create a roadmap. • Mobilized several research/technology consulting firms to provide technical support for DER interconnection improvements in NY. • Launched a competitive program funding opportunity focused on innovation to reduce DER interconnection burdens in NY (October 2016). • Developing model for collaboration between NYSERDA, DPS, NYPA, utilities, and grid tech companies to ensure road map work is compatible with and complimentary to the development of the Distribution System Implementation Plans (DSIPs). This work will intensify in Q4 as DSIPs are made available. |
| Tables 62-63: High Performing Grid Modernization Approval Date: May 23, 2016 | <ul style="list-style-type: none"> • On track to achieve milestones. • In addition to the progress noted above in the related DER Interconnection area, NYSERDA has issued a competitive program funding opportunity focused on innovation to advance high performing grid modernization (October 2016). |
| Tables 64-67: Cleantech Startup Growth Approval Date: May 23, 2016 | <ul style="list-style-type: none"> • On track to achieve milestones. • Launched a competitive program funding opportunity focused on cleantech incubation. |
| Tables 68-69: NextGen HVAC Approval Date: August 17, 2016 | <ul style="list-style-type: none"> • First Technology challenge milestone will likely be delayed by one quarter. Resulted from expanded scope of technical analysis and inclusion of more stakeholder input in this early work. |
| Tables 70-71: Electric Vehicle Innovation Approval Date: August 17, 2016 | <ul style="list-style-type: none"> • On track to achieve milestones. • Initial development of 2017 offering underway. |

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

Table 2. CEF Minimum Projected Benefits 2016-2025 and Progress to Date, Commitment Basis (in millions)^{7, 8, 9, 10, 11}

| | | Cumulative Annual Benefits | | Lifetime Benefits | |
|---------------------------------------|-------|--|--------------------------------------|--|--------------------------------------|
| | | Cumulative Progress through September 30, 2016 | Minimum Projected Benefits 2016-2025 | Cumulative Progress through September 30, 2016 | Minimum Projected Benefits 2016-2025 |
| Energy Efficiency | MWh | 0.17 | 10.6 | 2.69 | * |
| | MMBtu | 0.86 | 13.4 | 15.29 | * |
| | MW | 0.00002 | * | 0.00002 | * |
| Renewable Energy | MWh | 0.01 | * | 0.17 | 88 |
| | MW | 0.0000003 | * | 0.0000003 | * |
| CO2 Emission Reductions (metric tons) | | 0.11 | * | 1.89 | 133 |
| Customer Bill Savings (\$ million) | | \$26.10 | * | \$436.29 | \$39,131 |
| Private Investment (\$ million) | | \$184.28 | * | \$184.28 | \$29,356 |

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

⁷ The Renewable Energy Minimum Project Benefits Target is based on the estimated benefits of NY-Sun. As of September 30, 2016, NY Sun has contributed 31,784,075 Lifetime MWh toward this target.

⁸ The Private Investment Target includes estimated benefits from NY-Sun and NY Green Bank. This information will be reported on an annual basis.

⁹ Bill savings represent savings for participants of NYSERDA programs. Beginning with the Quarter 3 2016 reporting period, NYSERDA changed its methodology for calculating bill savings from Statewide average bill rates to utility specific bill rates.

¹⁰ Cumulative Current Annual Targets for the initial Resource Acquisition Transition Chapter were rounded to the nearest 1,000. NYSERDA will update these to round to three significant figures, consistent with subsequent filings, when that Chapter is next filed.

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

Table 3. Market Development and Innovation & Research Portfolio Level Budgets and Spending ¹²

| Initiative | PSC Ordered Program Budget Funds ^a | Budget Approved as of September 30, 2016 ^b | % of Ordered Budget Funds Approved ^c | Expended Funds ^d | Open Encumbrances ^e | Contract Pre-Encumbrances ^f | Committed Funds ^g | % of Approved Budget Committed ^h | Budget Approved Remaining Balance ⁱ |
|----------------------------------|---|---|---|-----------------------------|--------------------------------|--|------------------------------|---|--|
| Market Development | | | | | | | | | |
| Program Funds | | | | | | | | | |
| NYS Cost Recovery Fee | \$2,386,760,624 | \$640,700,928 | 27% | \$13,752,235 | \$12,171,280 | \$41,526,249 | \$67,449,764 | 11% | \$573,251,164 |
| Innovation & Research | | | | | | | | | |
| Program Funds | | | | | | | | | |
| NYS Cost Recovery Fee | \$629,833,404 | \$167,052,594 | 27% | \$237,765 | \$205,825 | \$10,000 | \$453,590 | 0.3% | \$166,599,004 |
| Administration | \$273,601,311 | \$72,658,915 | 27% | \$9,011,094 | \$111,129 | \$29,601 | \$9,151,824 | 13% | \$63,507,091 |
| Evaluation | \$130,200,000 | \$27,824,000 | 21% | \$72,524 | \$200,000 | - | \$272,524 | 1% | \$27,551,476 |
| Total | \$3,420,395,339 | \$908,236,437 | 27% | \$23,073,618 | \$12,688,234 | \$41,565,850 | \$77,327,702 | 9% | \$830,908,735 |

- ^a CEF Order authorized CEF funding.
- ^b Funds approved by DPS as of September 30, 2016.
- ^c The percentage of the budget that has been approved.
- ^d Invoices processed for payment by NYSERDA.
- ^e Remaining funding obligated under a contract, purchase order or incentive award.
- ^f Planned funding for contracts awarded and under negotiation.
- ^g The sum of Expended Funds, Open Encumbrances and Contract Pre-Encumbrances.
- ^h The percentage of the budget that has been committed.
- ⁱ The difference between Budget Approved Funds and Committed Funds.

¹² NYSERDA has pre-encumbered an additional \$30.2 million to solicitations with upcoming due dates that are not shown in the above table. When including these funds, NYSERDA has committed 12 percent of the approved total budget to date. Committed benefits presented in this report do not include benefits associated with awards made as a result of these solicitations.

Table 4. Market Development and Innovation & Research Portfolio Committed Benefits Progress to Date - Annual^{13, 14, 15}

| Initiative | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Annual Target (2016) | % of Cumulative Annual Target (2016) | Total Cumulative Annual Target through 2025 | % of Total Cumulative Annual Target through 2025 |
|---|---|---|---|--|---|---|--------------------------------------|---|--|
| Market Development | | | | | | | | | |
| Energy Efficiency (MWh) | 1,391 | 2,924 | 4,314 | 169,890 | 174,204 | 624,500 | 28% | 1,844,000 | 9% |
| Energy Efficiency (MMBtu) | 46,812 | 55,027 | 101,839 | 753,335 | 855,175 | 4,554,000 | 19% | 15,030,000 | 6% |
| Energy Efficiency (MW) | - | - | - | 24 | 24 | * | - | * | - |
| Renewable Energy (MWh) | 5 | 69 | 74 | 13,217 | 13,291 | * | - | * | - |
| Renewable Energy (MW) | - | 0.01 | 0.01 | 0.3 | 0.3 | * | - | * | - |
| CO2e Reductions (metric tons) | 3,407 | 4,798 | 8,205 | 104,437 | 112,642 | * | - | * | - |
| Customer Bill Savings (\$ million) | \$0.77 | \$1.14 | \$1.90 | \$24.20 | \$26.10 | * | - | * | - |
| Private Investment (\$ million) | \$6.38 | \$8.18 | \$14.57 | \$169.72 | \$184.28 | * | - | * | - |
| 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) | - | - | - | - | - | * | - | * | - |
| Total Energy Efficiency (MWh) | 1,391 | 2,924 | 4,314 | 169,890 | 174,204 | | | | |
| Total Energy Efficiency (MMBtu) | 46,812 | 55,027 | 101,839 | 753,335 | 855,175 | | | | |
| Total Energy Efficiency (MW) | - | - | - | 24 | 24 | | | | |
| Total Renewable Energy (MWh) | 5 | 69 | 74 | 13,217 | 13,291 | | | | |
| Total Renewable Energy (MW) | - | 0.01 | 0.01 | 0.3 | 0.3 | | | | |
| Total CO2e Reductions (metric tons) | 3,407 | 4,798 | 8,205 | 104,437 | 112,642 | | | | |
| Total Customer Bill Savings (\$ million) | \$0.77 | \$1.14 | \$1.90 | \$24.20 | \$26.10 | | | | |
| Total Private Investment (\$ million) | \$6.38 | \$8.18 | \$14.57 | \$169.72 | \$184.28 | | | | |

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

¹³ Targets and benefits include initiatives filed and approved through September 30, 2016.

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

¹⁵ Completed projects through June 30, 2016 contains adjustments from programs due to lagged data and QA/QC. Refer to specific initiative footnotes for adjustments.

Table 5. Market Development and Innovation & Research Portfolio Committed Benefits Progress to Date - Lifetime^{16, 17, 18}

| Initiative | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Lifetime Target (2016) | % of Cumulative Lifetime Target (2016) | Total Lifetime Target through 2025 | % of Total Lifetime Target through 2025 |
|---|---|---|---|--|---|-----------------------------------|--|------------------------------------|---|
| Market Development | | | | | | | | | |
| Energy Efficiency (MWh) | 20,859 | 44,003 | 64,863 | 2,622,652 | 2,687,514 | * | - | * | - |
| Energy Efficiency (MMBtu) | 1,168,841 | 1,367,598 | 2,536,439 | 12,753,725 | 15,290,163 | * | - | * | - |
| Renewable Energy (MWh) | 68 | 1,100 | 1,168 | 164,090 | 165,258 | * | - | 2,524,000 | 7% |
| CO2e Reductions (metric tons) | 77,857 | 103,828 | 181,685 | 1,707,622 | 1,889,307 | 9,290,000 | 20% | 27,870,000 | 7% |
| Customer Bill Savings (\$ million) | \$17.46 | \$24.56 | \$42.02 | \$394.27 | \$436.29 | \$1,508 | 29% | \$4,974 | 9% |
| Private Investment (\$ million) | \$6.38 | \$8.18 | \$14.57 | \$169.72 | \$184.28 | \$738 | 25% | \$4,176 | 4% |
| Innovation and Research | | | | | | | | | |
| Energy Efficiency (MWh) | - | - | - | - | - | * | - | * | - |
| Energy Efficiency (MMBtu) | - | - | - | - | - | * | - | * | - |
| Renewable Energy (MWh) | - | - | - | - | - | * | - | * | - |
| CO2e Reductions (metric tons) | - | - | - | - | - | * | - | * | - |
| Customer Bill Savings (\$ million) | - | - | - | - | - | * | - | * | - |
| Private Investment (\$ million) | - | - | - | - | - | \$102.5 | - | \$421.8 | - |
| Total Energy Efficiency (MWh) | 20,859 | 44,003 | 64,863 | 2,622,652 | 2,687,514 | - | - | - | - |
| Total Energy Efficiency (MMBtu) | 1,168,841 | 1,367,598 | 2,536,439 | 12,753,725 | 15,290,163 | - | - | - | - |
| Total Renewable Energy (MWh) | 68 | 1,100 | 1,168 | 164,090 | 165,258 | - | - | - | - |
| Total CO2e Reductions (metric tons) | 77,857 | 103,828 | 181,685 | 1,707,622 | 1,889,307 | - | - | - | - |
| Total Customer Bill Savings (\$ million) | \$17.46 | \$24.56 | \$42.02 | \$394.27 | \$436.29 | - | - | - | - |
| Total Private Investment (\$ million) | \$6.38 | \$8.18 | \$14.57 | \$169.72 | \$184.28 | - | - | - | - |

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

¹⁶ Targets and benefits include initiatives filed and approved through September 30, 2016.

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

¹⁸ Completed projects through June 30, 2016 contains adjustments from programs due to lagged data and QA/QC. Refer to specific initiative footnotes for adjustments.

2 Resource Acquisition Transition Initiative Specific Results

Table 6. Resource Acquisition Transition Initiative Level Budgets and Spending¹⁹

| Initiative | Budget Approved as of September 30, 2016 ^a | Expended Funds ^b | Open Encumbrances ^c | Contract Pre-Encumbrances ^d | Committed Funds ^e | % of Approved Budget Committed ^f | Budget Approved Remaining Balance ^g |
|--|---|-----------------------------|--------------------------------|--|------------------------------|---|--|
| Resource Acquisition Transition Chapter | | | | | | | |
| Commercial | \$37,000,000 | \$89,105 | \$723,503 | \$536,322 | \$1,348,930 | 4% | \$35,651,070 |
| Industrial | \$44,100,000 | \$387,216 | \$1,168,428 | \$5,785,027 | \$7,340,671 | 17% | \$36,759,329 |
| Agriculture | \$3,600,000 | \$322,543 | \$1,021,679 | \$10,000 | \$1,354,222 | 38% | \$2,245,778 |
| Multifamily Market Rate | \$5,195,862 | - | \$106,572 | - | \$106,572 | 2% | \$5,089,290 |
| Single Family Market Rate | \$18,889,680 | \$2,403,410 | \$1,450,867 | \$1,075,592 | \$4,929,869 | 26% | \$13,959,811 |
| LMI Single Family | \$107,371,400 | \$9,701,709 | \$1,582,550 | \$8,168,526 | \$19,452,785 | 18% | \$87,918,615 |
| LMI Multifamily | \$33,862,500 | - | \$418,785 | \$307,725 | \$726,510 | 2% | \$33,135,990 |
| Commercial New Construction | \$24,683,975 | \$10,647 | \$585,363 | \$11,829,820 | \$12,425,830 | 50% | \$12,258,145 |
| Low Rise New Construction | \$10,836,000 | - | \$95,200 | \$564,700 | \$659,900 | 6% | \$10,176,100 |
| Multifamily New Construction | \$10,155,138 | - | \$474,819 | \$2,543,200 | \$3,018,019 | 30% | \$7,137,119 |
| Anaerobic Digesters | \$12,150,000 | - | - | \$4,000,000 | \$4,000,000 | 33% | \$8,150,000 |
| Fuel Cells | \$6,000,000 | - | - | - | - | - | \$6,000,000 |
| Small Wind | \$6,090,000 | \$97,090 | \$639,406 | \$159,833 | \$896,329 | 15% | \$5,193,671 |
| Solar Thermal | \$3,000,000 | \$30,616 | \$194,383 | \$1,834,640 | \$2,059,639 | 69% | \$940,361 |
| Combined Heat & Power | \$48,550,000 | \$91,227 | \$664,890 | \$3,656,825 | \$4,412,942 | 9% | \$44,137,058 |
| TOTAL | \$371,484,555 | \$13,133,563 | \$9,126,445 | \$40,472,210 | \$62,732,218 | 17% | \$308,752,337 |

Table notes are on the next page

¹⁹ NYSERDA has committed an additional \$8,789,290 to solicitations with upcoming due dates that are not shown in the above. When including these funds, NYSERDA has committed 20 percent of the approved budget to date for the Resource Acquisition Transition Chapter. Committed benefits presented in this report do not include benefits that will be associated with awards made as a result of these solicitations.

- a Funds approved by the DPS as of September 30, 2016.
- b Invoices processed for payment by NYSERDA.
- c Remaining funding obligated under a contract, purchase order, or incentive award.
- d Planned funding for contracts awarded and under negotiation.
- e The sum of Expended Funds, Open Encumbrances, and Contract Pre-Encumbrances.
- f The percentage of the budget that has been committed.
- g The difference between Budget Approved Funds and Committed Funds.

Table 7. Commercial Resource Acquisition Transition and FlexTech Initiative Results^{20, 21}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | 5,525 | 5,525 | 76,800 | 7% | 120,800 | 5% |
| | MWh Lifetime | - | - | - | 91,168 | 91,168 | 1,150,000 | 8% | 1,810,000 | 5% |
| | MMBtu Annual | - | - | - | 44,729 | 44,729 | 729,000 | 6% | 1,113,000 | 4% |
| | MMBtu Lifetime | - | - | - | 738,025 | 738,025 | 13,100,000 | 6% | 20,020,000 | 4% |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | 5,284 | 5,284 | 79,100 | 7% | 122,600 | 4% |
| | Lifetime Tons | - | - | - | 87,183 | 87,183 | 1,300,000 | 7% | 2,014,000 | 4% |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | \$0.98 | \$0.98 | \$14.80 | 7% | \$23.1 | 4% |
| | Lifetime Dollars | - | - | - | \$16.20 | \$16.20 | \$222 | 7% | \$347 | 5% |
| Private Investment (millions) | Dollars | - | - | - | \$1.25 | \$1.25 | \$88 | 1% | \$124 | 1% |
| Technical Assistance | Participants | - | - | - | - | - | 176 | - | 320 | - |
| Implementation Assistance | | - | - | - | 43 | 43 | 70 | 61% | 70 | 61% |

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

²⁰ FlexTech (Technical Assistance) includes six CHP studies in the participant count; however, the impact of these projects (in terms of energy and dollar metrics) is included in the Combined Heat and Power table (Table 24).

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

Table 8. Industrial Resource Acquisition Transition Initiative Results^{22, 23}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | 61 | 61 | 42,281 | 42,342 | 201,000 | 21% | 292,700 | 14% |
| | MWh Lifetime | - | 920 | 920 | 634,215 | 635,135 | 3,010,000 | 21% | 4,386,000 | 14% |
| | MMBtu Annual | - | - | - | 503,525 | 503,525 | 1,940,000 | 26% | 2,857,000 | 18% |
| | MMBtu Lifetime | - | - | - | 7,552,880 | 7,552,880 | 29,200,000 | 26% | 42,950,000 | 18% |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | 32 | 32 | 48,455 | 48,487 | 209,000 | 23% | 305,900 | 16% |
| | Lifetime Tons | - | 484 | 484 | 726,822 | 727,306 | 3,130,000 | 23% | 4,584,000 | 16% |
| Customer Bill Savings (millions) | Annual Dollars | - | \$0.01 | \$0.01 | \$6.83 | \$6.84 | \$11.7 | 59% | \$17.2 | 40% |
| | Lifetime Dollars | - | \$0.11 | \$0.11 | \$102.5 | \$102.63 | \$175 | 59% | \$258 | 40% |
| Private Investment (millions) | Dollars | - | \$0.02 | \$0.02 | \$40.61 | \$40.63 | \$174 | 23% | \$219 | 19% |
| IPE | Participants | - | 1 | 1 | 36 | 37 | 250 | 15% | 285 | 13% |
| Technical Assistance | | - | - | - | 14 | 14 | 120 | 12% | 320 | 4% |

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

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

²³ The targets for Customer Bill Savings (millions), both Annual Dollars and Lifetime Dollars for Cumulative Current Target (2016) and total Target Through Initiative Completion (2019), are incorrect. The Annual Dollars Cumulative Current Target (2016) should be \$31,700,000 and the Lifetime Dollars Cumulative Current Target (2016) should be \$476,000,000. The Annual Dollars Total Target through Initiative Completion (2019) should be \$46,400,000 and The Lifetime Dollars Total Target through Initiative Completion (2019) should be \$696,000,000. NYSERDA will correct these targets in future filings based on guidance from the Department of Public Service.

Table 9. Agriculture Resource Acquisition Transition Initiative Results^{24, 25}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | 195 | 1,420 | 1,615 | 2,092 | 3,707 | 6,050 | 61% | 12,100 | 31% |
| | MWh Lifetime | 2,926 | 21,302 | 24,228 | 31,383 | 55,612 | 90,800 | 61% | 181,600 | 31% |
| | MMBtu Annual | 146 | 288 | 434 | 256 | 690 | 20,500 | 3% | 41,000 | 2% |
| | MMBtu Lifetime | 2,189 | 4,317 | 6,506 | 3,841 | 10,346 | 308,000 | 3% | 616,000 | 2% |
| Renewable Energy | MW | - | - | - | - | - | * | - | * | - |
| | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | MW | - | - | - | - | - | * | - | * | - |
| | Annual Tons | 101 | 766 | 867 | 1,114 | 1,981 | 4,270 | 46% | 8,540 | 23% |
| Customer Bill Savings (millions) | Lifetime Tons | 1,522 | 11,483 | 13,005 | 16,717 | 29,722 | 64,100 | 46% | 128,200 | 23% |
| | Annual Dollars | \$0.02 | \$0.18 | \$0.20 | \$0.26 | \$0.46 | \$1.20 | 38% | \$2.40 | 19% |
| Private Investment (millions) | Lifetime Dollars | \$0.34 | \$2.65 | \$3.00 | \$3.89 | 7 | \$18.0 | 38% | \$36.0 | 19% |
| | Dollars | - | - | - | - | - | \$5.43 | - | \$10.9 | - |
| Participants | Participants | 11 | 34 | 45 | 111 | 156 | 330 | 47% | 660 | 24% |

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

²⁴ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

²⁵ Completed projects through June 30, 2016 had the following changes Energy Efficiency Annual MWh went from 178 to 195, Energy Efficiency MWh Lifetime went from 2,674 to 2,926, CO2e Emission Reduction Annual Tons went from 94 to 101, CO2e Emission Reduction Lifetime Tons went from 1,407 to 1,522, Customer Bill Savings (millions) Annual Dollars went from \$.03 to \$.02, and Customer Bill Savings (millions) Lifetime Dollars went from \$.39 to \$.34. This is due to a lag in data.

Table 10. Multifamily Market Rate Resource Acquisition Transition Initiative Results²⁶

Approval Date: February 29, 2016

Launch Date: May 19, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | 1,300 | - | 2,600 | - |
| | MWh Lifetime | - | - | - | - | - | 19,500 | - | 39,000 | - |
| | MMBtu Annual | - | - | - | - | - | 142,000 | - | 309,000 | - |
| | MMBtu Lifetime | - | - | - | - | - | 2,130,000 | - | 4,630,000 | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | 8,300 | - | 17,900 | - |
| | Lifetime Tons | - | - | - | - | - | 125,000 | - | 269,000 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | \$2.30 | - | \$5.00 | - |
| | Lifetime Dollars | - | - | - | - | - | \$34.5 | - | \$75.0 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$13.0 | - | \$27.0 | - |
| Participants | Participants | - | - | - | - | - | 10,600 | - | 38,000 | - |

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

Table 11. Single Family Market Rate Resource Acquisition Transition Initiative Results^{27, 28, 29}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | 292 | 423 | 715 | 430 | 1,146 | 1,330 | 86% | 2,920 | 39% |
| | MWh Lifetime | 4,387 | 6,343 | 10,730 | 6,454 | 17,184 | 19,900 | 86% | 43,800 | 39% |
| | MMBtu Annual | 16,240 | 19,118 | 35,358 | 21,269 | 56,627 | 97,900 | 58% | 215,900 | 26% |
| | MMBtu Lifetime | 405,991 | 477,961 | 883,952 | 531,726 | 1,415,678 | 2,450,000 | 58% | 5,390,000 | 26% |
| | MW | - | - | 0 | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | 0 | - | - | * | - | * | - |
| | MWh Lifetime | - | - | 0 | - | - | * | - | * | - |
| | MW | - | - | 0 | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | 1,122 | 1,418 | 2,541 | 1,528 | 4,069 | 6,630 | 61% | 14,590 | 28% |
| | Lifetime Tons | 26,516 | 33,237 | 59,752 | 35,943 | 95,696 | 159,000 | 60% | 350,000 | 27% |
| Customer Bill Savings (millions) | Annual Dollars | \$0.27 | \$0.38 | \$0.65 | \$0.41 | \$1.06 | \$1.72 | 62% | \$3.77 | 28% |
| | Lifetime Dollars | \$6.46 | \$8.83 | \$15.29 | \$9.66 | \$24.95 | \$40.8 | 61% | \$89.7 | 28% |
| Private Investment (millions) | Dollars | \$4.18 | \$5.77 | \$9.95 | \$5.99 | \$15.94 | \$34.0 | 47% | \$79.4 | 20% |
| Participants | Participants | 565 | 740 | 1,305 | 785 | 2,090 | 4,080 | 51% | 8,976 | 23% |

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

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

²⁸ Completed projects through June 30, 2016 had the following changes: beginning with the Quarter 3 2016 reporting period for calculating lifetime electric and gas savings switching to a 15-year measure life for electric savings and a 25-year measure life for gas savings rather than a 20-year measure life for both: Energy Efficiency MWh Annual went from 296 to 292, Energy Efficiency MWh Lifetime went from 5,914 to 4,387, Energy Efficiency MMBtu Annual went from 17,020 to 16,240, Energy Efficiency MMBtu Lifetime went from 340,394 to 405,991, CO2e Emission Reduction Annual Tons went from 1,178 to 1,122, CO2e Emission Reduction Lifetime Tons went from 23,555 to 26,516, Customer Bill Savings (millions) Annual Dollars went from \$0.31 to \$0.27, Customer Bill Savings (millions) Lifetime Dollars went from \$6.11 to \$6.64, Private Investment (millions) Dollars went from \$4.61 to \$4.18 and Participants went from 558 to 565. These changes were due to a data quality review and a change in methodology.

²⁹ Cumulative Current Target (2016) and Total Target through Initiative Completion (2019) have been discounted based on historical performance, however current benefits have not been discounted. Future impact evaluations will inform the level of realized savings.

Table 12. Low- to Moderate-Income Single Family Low-Income Resource Acquisition Transition Initiative Results^{30, 31, 32}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | 590 | 719 | 1,308 | 1,485 | 2,793 | 4,670 | 60% | 14,450 | 19% |
| | MWh Lifetime | 8,843 | 10,778 | 19,621 | 22,269 | 41,890 | 70,000 | 60% | 216,800 | 19% |
| | MMBtu Annual | 16,453 | 21,089 | 37,542 | 42,609 | 80,151 | 109,000 | 74% | 337,000 | 24% |
| | MMBtu Lifetime | 411,325 | 527,217 | 938,542 | 1,065,228 | 2,003,770 | 2,710,000 | 74% | 8,390,000 | 24% |
| Renewable Energy | MW | - | - | - | - | - | * | - | * | - |
| | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | MW | - | - | - | - | - | * | - | * | - |
| | Annual Tons | 1,213 | 1,536 | 2,749 | 3,120 | 5,869 | 8,570 | 68% | 26,530 | 22% |
| | Lifetime Tons | 27,229 | 34,613 | 61,841 | 70,189 | 132,030 | 190,000 | 69% | 588,000 | 22% |
| Customer Bill Savings (millions) | Annual Dollars | \$0.27 | \$0.33 | \$0.60 | \$0.78 | \$1.38 | \$2.05 | 67% | \$6.34 | 22% |
| | Lifetime Dollars | \$6.05 | \$7.30 | \$13.35 | \$17.07 | \$30.42 | \$43.8 | 69% | \$135.63 | 22% |
| Private Investment (millions) | Dollars | - | - | - | - | - | * | - | * | - |
| Participants | Participants | 1,197 | 1,270 | 2,467 | 2,800 | 5,267 | 8,348 | 63% | 25,848 | 20% |

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

³¹ Completed projects through June 30, 2016 had the following changes: beginning with the Quarter 3 2016 reporting period for calculating lifetime electric and gas savings switching to a 15-year measure life for electric savings and a 25-year measure life for gas savings rather than a 15-year measure life for both: Energy Efficiency MWh Annual went from 381 to 590, Energy Efficiency MWh Lifetime went from 5,710 to 8,843, Energy Efficiency MMBtu Annual went from 9,361 to 16,453, Energy Efficiency MMBtu Lifetime went from 140,419 to 411,325, CO2e Emission Reduction Annual Tons went from 729 to 1,213, CO2e Emission Reduction Lifetime Tons went from 10,931 to 27,229, Customer Bill Savings (millions) Annual Dollars went from \$0.19 to \$0.27, Customer Bill Savings (millions) Lifetime Dollars went from \$2.80 to \$6.05, and Participants went from 719 to 1,197. These changes were due to a data quality review and a change in methodology.

³² Cumulative Current Target (2016) 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.

Table 13. Low- to Moderate-Income Single Family Moderate Income Resource Acquisition Transition Initiative Results^{33, 34, 35}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | 314 | 271 | 584 | 320 | 904 | 584 | 155% | 1,624 | 56% |
| | MWh Lifetime | 4,704 | 4,063 | 8,766 | 4,799 | 13,566 | 8,770 | 155% | 24,370 | 56% |
| | MMBtu Annual | 13,973 | 13,491 | 27,464 | 15,035 | 42,499 | 43,200 | 98% | 120,000 | 35% |
| | MMBtu Lifetime | 349,336 | 337,265 | 686,601 | 375,865 | 1,062,466 | 1,080,000 | 98% | 3,000,000 | 35% |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | 968 | 934 | 1,902 | 1,041 | 2,943 | 2,740 | 107% | 7,620 | 39% |
| | Lifetime Tons | 22,554 | 21,920 | 44,474 | 24,347 | 68,821 | 65,400 | 105% | 181,800 | 38% |
| Customer Bill Savings (millions) | Annual Dollars | \$0.20 | \$0.21 | \$0.41 | \$0.26 | \$0.67 | \$0.61 | 110% | \$1.70 | 39% |
| | Lifetime Dollars | \$4.61 | \$5.02 | \$9.62 | \$6.01 | \$15.63 | \$14.4 | 109% | \$40.04 | 39% |
| Private Investment (millions) | Dollars | \$2.20 | \$2.27 | \$4.47 | \$2.45 | \$6.91 | \$7 | 96% | \$19 | 37% |
| Participants | Participants | 417 | 458 | 875 | 479 | 1,354 | 1,798 | 75% | 4,998 | 27% |

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

³³ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

³⁴ Completed projects through June 30, 2016 had the following changes: beginning with the Quarter 3 2016 reporting period for calculating lifetime electric and gas savings switching to a 15-year measure life for electric savings and a 25-year measure life for gas savings rather than a 15-year measure life for both: Energy Efficiency MWh Annual went from 267 to 314, Energy Efficiency MWh Lifetime went from 4,000 to 4,704, Energy Efficiency MMBtu Annual went from 12,668 to 13,973, Energy Efficiency MMBtu Lifetime went from 190,018 to 349,336, CO2e Emission Reduction Annual Tons went from 868 to 968, CO2e Emission Reduction Lifetime Tons went from 13,026 to 22,554, Customer Bill Savings (millions) Lifetime Dollars went from \$3.06 to \$4.61, Private Investment (millions) Dollars went from \$2.19 to \$2.20 and Participants went from 416 to 417. These changes were due to a data quality review and a change in methodology.

³⁵ Cumulative Current Target (2016) 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.

Table 14. Low- to Moderate-Income Multifamily Resource Acquisition Transition Initiative Results³⁶

Approval Date: February 29, 2016

Launch Date: May 19, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | 399 | 399 | 20,600 | 2% | 61,500 | 2% |
| | MWh Lifetime | - | - | - | 5,992 | 5,992 | 309,000 | 2% | 923,000 | 2% |
| | MMBtu Annual | - | - | - | 6,417 | 6,417 | 461,000 | 1% | 1,380,000 | 1% |
| | MMBtu Lifetime | - | - | - | 96,255 | 96,255 | 6,920,000 | 1% | 20,700,000 | 1% |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | 551 | 551 | 34,900 | 2% | 104,500 | 2% |
| | Lifetime Tons | - | - | - | 8,267 | 8,267 | 524,000 | 2% | 1,568,000 | 2% |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | \$0.08 | \$0.08 | \$10 | 1% | \$29.9 | 1% |
| | Lifetime Dollars | - | - | - | \$1.21 | \$1.21 | \$150 | 1% | \$449 | 1% |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$76 | - | \$301 | - |
| Participants | Participants | - | - | - | 373 | 373 | 73,000 | 1% | 220,000 | 1% |

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

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

Table 15. Commercial New Construction Resource Acquisition Transition Initiative Results^{37, 38}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | 25,346 | 25,346 | 20,500 | 124% | 37,900 | 67% |
| | MWh Lifetime | - | - | - | 506,927 | 506,927 | 409,000 | 124% | 758,000 | 67% |
| | MMBtu Annual | - | - | - | 49,387 | 49,387 | 27,100 | 182% | 50,200 | 98% |
| | MMBtu Lifetime | - | - | - | 987,746 | 987,746 | 541,000 | 183% | 1,003,000 | 98% |
| | MW | - | - | - | 7 | 7 | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | 15,715 | 15,715 | 12,200 | 129% | 22,600 | 70% |
| | Lifetime Tons | - | - | - | 314,298 | 314,298 | 244,000 | 129% | 452,000 | 70% |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | \$4.04 | \$4.04 | \$3.49 | 116% | \$6.46 | 63% |
| | Lifetime Dollars | - | - | - | \$79.50 | \$79.50 | \$69.7 | 114% | \$129 | 62% |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$28.6 | - | \$106 | - |
| Participants | Participants | - | - | - | 37 | 37 | 54 | 69% | 100 | 37% |

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

³⁷ The pipeline savings projection for Commercial New Construction is based on current approved applications and does not include any discount for expected future attrition. The Resource Acquisition Transition Chapter annual savings targets assumed an attrition rate of approximately 50 percent, based on historic program data. Actual attrition will be reflected in the reported values as it occurs.

³⁸ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

Table 16. Low Rise New Construction Market Rate Resource Acquisition Transition Initiative Results ³⁹

Approval Date: February 29, 2016

Launch Date: March 1, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | 30 | 30 | 432 | 462 | 2,330 | 20% | 4,520 | 10% |
| | MWh Lifetime | - | 597 | 597 | 8,640 | 9,237 | 46,700 | 20% | 90,500 | 10% |
| | MMBtu Annual | - | 1,042 | 1,042 | 6,042 | 7,084 | 27,400 | 26% | 47,400 | 15% |
| | MMBtu Lifetime | - | 20,838 | 20,838 | 120,840 | 141,678 | 547,000 | 26% | 947,000 | 15% |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | 76 | 76 | 548 | 624 | 2,700 | 23% | 4,930 | 13% |
| | Lifetime Tons | - | 1,512 | 1,512 | 10,967 | 12,479 | 53,900 | 23% | 98,500 | 13% |
| Customer Bill Savings (millions) | Annual Dollars | - | \$0.03 | \$0.03 | \$0.13 | \$0.15 | \$0.9 | 17% | \$1.6 | 9% |
| | Lifetime Dollars | - | \$0.51 | \$0.51 | \$2.52 | \$3.03 | \$18.0 | 17% | \$32.0 | 9% |
| Private Investment (millions) | Dollars | - | \$0.07 | \$0.07 | - | \$0.07 | \$2.78 | 2% | \$4.99 | 1% |
| Participants | Participants | - | 13 | 13 | 265 | 278 | 993 | 28% | 1,790 | 16% |

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

Table 17. Low Rise New Construction Low- to Moderate-Income Resource Acquisition Transition Initiative Results⁴⁰

Approval Date: February 29, 2016

Launch Date: March 1, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | 400 | 400 | 3,750 | 11% | 7,600 | 5% |
| | MWh Lifetime | - | - | - | 8,000 | 8,000 | 74,900 | 11% | 151,900 | 5% |
| | MMBtu Annual | - | - | - | 5,586 | 5,586 | 35,400 | 16% | 66,300 | 8% |
| | MMBtu Lifetime | - | - | - | 111,720 | 111,720 | 707,000 | 16% | 1,325,000 | 8% |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | 507 | 507 | 3,870 | 13% | 7,560 | 7% |
| | Lifetime Tons | - | - | - | 10,145 | 10,145 | 77,400 | 13% | 151,100 | 7% |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | \$0.12 | \$0.12 | \$1.0 | 12% | \$2.0 | 6% |
| | Lifetime Dollars | - | - | - | \$2.33 | \$2.33 | \$20.0 | 12% | \$40.0 | 6% |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$6.46 | - | \$12.97 | - |
| Participants | Participants | - | - | - | 245 | 245 | 1814 | 14% | 3,622 | 7% |

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

⁴⁰ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

Table 18. Multifamily New Construction Market Rate Resource Acquisition Transition Initiative Results ⁴¹

Approval Date: February 29, 2016

Launch Date: August 8, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | 122 | 122 | 3,780 | 3% | 6,610 | 2% |
| | MWh Lifetime | - | - | - | 2,441 | 2,441 | 75,600 | 3% | 132,300 | 2% |
| | MMBtu Annual | - | - | - | 3,726 | 3,726 | 28,100 | 13% | 47,900 | 8% |
| | MMBtu Lifetime | - | - | - | 74,520 | 74,520 | 562,000 | 13% | 957,000 | 8% |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | 262 | 262 | 3,480 | 8% | 6,020 | 4% |
| | Lifetime Tons | - | - | - | 5,244 | 5,244 | 69,600 | 8% | 120,400 | 4% |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | \$0.04 | \$0.04 | \$0.80 | 5% | \$6.46 | 1% |
| | Lifetime Dollars | - | - | - | \$0.75 | \$0.75 | \$16.0 | 5% | \$28.0 | 3% |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$10.2 | - | \$17.5 | - |
| Participants | Participants | - | - | - | 81 | 81 | 2,000 | 4% | 3,500 | 2% |

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

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

Table 19. Multifamily New Construction Low- to Moderate-Income Resource Acquisition Transition Initiative Results⁴²

Approval Date: February 29, 2016

Launch Date: August 8, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | 2,386 | 2,386 | 10,400 | 23% | 18,900 | 13% |
| | MWh Lifetime | - | - | - | 47,719 | 47,719 | 208,000 | 23% | 378,000 | 13% |
| | MMBtu Annual | - | - | - | 54,754 | 54,754 | 77,300 | 71% | 136,600 | 40% |
| | MMBtu Lifetime | - | - | - | 1,095,080 | 1,095,080 | 1,550,000 | 71% | 2,740,000 | 40% |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | 4,165 | 4,165 | 9,570 | 44% | 17,190 | 24% |
| | Lifetime Tons | - | - | - | 83,293 | 83,293 | 191,000 | 44% | 343,000 | 24% |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | \$0.65 | \$0.65 | \$2.20 | 30% | \$4.00 | 16% |
| | Lifetime Dollars | - | - | - | \$13.01 | \$13.01 | \$44.0 | 30% | \$80.0 | 16% |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$28.1 | - | \$50.1 | - |
| Participants | Participants | - | - | - | 1,465 | 1,465 | 5,500 | 27% | 10,000 | 15% |

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

⁴² This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

Table 20. Anaerobic Digesters Resource Acquisition Transition Initiative Results^{43, 44}

Approval Date: February 29, 2016

Launch Date: July 8, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | 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 | - | - | - | 7,444 | 7,444 | 10,000 | 74% | 30,000 | 25% |
| | MWh Lifetime | - | - | - | 74,438 | 74,438 | 100,000 | 74% | 300,000 | 25% |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | 3,917 | 3,917 | 5,250 | 75% | 15,750 | 25% |
| | Lifetime Tons | - | - | - | 39,167 | 39,167 | 52,500 | 75% | 157,500 | 25% |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | \$1.01 | \$1.01 | \$0.30 | 335% | \$0.90 | 112% |
| | Lifetime Dollars | - | - | - | \$10.06 | \$10.06 | \$3.0 | 335% | \$9.0 | 112% |
| Private Investment (millions) | Dollars | - | - | - | \$9.0 | \$9.0 | \$3.0 | 300% | \$9.0 | 100% |
| Participants | Participants | - | - | - | 2 | 2 | 2 | 100% | 6 | 33% |

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

⁴⁴ The targets for Customer Bill Savings (millions), both Annual Dollars and Lifetime Dollars for Cumulative Current Target (2016) and total Target Through Initiative Completion (2019), are incorrect. The Annual Dollars Cumulative Current Target (2016) should be \$1,330,000 and the Lifetime Dollars Cumulative Current Target should be \$13,300,000. These same corrections apply to Total Target through Initiative Completion (2019). NYSERDA will correct these targets in future filings based on guidance from the Department of Public Service.

Table 21. Fuel Cells Resource Acquisition Transition Initiative Results⁴⁵

Approval Date: February 29, 2016

Anticipated Launch Date: TBD

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | 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 | - | - | - | - | - | 5,000 | - | 15,000 | - |
| | MWh Lifetime | - | - | - | - | - | 50,000 | - | 150,000 | - |
| | MW | - | - | - | - | - | 0.6 | - | 1.8 | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | 3,000 | - | 7,800 | - |
| | Lifetime Tons | - | - | - | - | - | 26,000 | - | 78,000 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | \$0.50 | - | \$1.50 | - |
| | Lifetime Dollars | - | - | - | - | - | \$5.0 | - | \$15.0 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$4.0 | - | \$12.0 | - |
| Participants | Participants | - | - | - | - | - | 2 | - | 6 | - |

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

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

Table 22. Small Wind Resource Acquisition Transition Initiative Results^{46, 47}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | 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 | - | 13 | 13 | 610 | 623 | 2,300 | 27% | 6,900 | 9% |
| | MWh Lifetime | - | 254 | 254 | 12,201 | 12,455 | 46,000 | 27% | 138,000 | 9% |
| | MW | - | 0.01 | 0.01 | 0.3 | 0.3 | 1 | 31% | 3 | 10% |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | 7 | 7 | 321 | 328 | 1,200 | 27% | 3,600 | 9% |
| | Lifetime Tons | - | 134 | 134 | 6,420 | 6,553 | 24,300 | 27% | 72,900 | 9% |
| Customer Bill Savings (millions) | Annual Dollars | - | \$0.001 | \$0.001 | \$0.09 | \$0.09 | \$0.40 | 22% | \$1.2 | 7% |
| | Lifetime Dollars | - | \$0.03 | \$0.03 | \$1.72 | \$1.75 | \$8.0 | 22% | \$24.0 | 7% |
| Private Investment (millions) | Dollars | - | \$0.02 | \$0.02 | \$1.20 | \$1.22 | \$4.0 | 30% | \$12.0 | 10% |
| Participants | Participants | - | 1 | 1 | 15 | 16 | 35 | 46% | 105 | 15% |

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

⁴⁶ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁴⁷ A 10-year measure life was used when calculating lifetime benefits for the Q2 2016 report however a 20-year measure life should have been used and was used for the Q3 2016 report.

Table 23. Solar Thermal Resource Acquisition Transition Initiative Results^{48, 49, 50, 51}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MMBtu Annual | - | - | - | - | - | * | - | * | - |
| | MMBtu Lifetime | - | - | - | - | - | * | - | 8 | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | 5 | 56 | 61 | 5,163 | 5,224 | 6,920 | 75% | 6,920 | 75% |
| | MWh Lifetime | 68 | 846 | 914 | 77,451 | 78,365 | 104,000 | 74% | 104,000 | 75% |
| | MW | - | - | - | - | - | * | * | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | 2 | 30 | 32 | 2,717 | 2,749 | 3,640 | 75% | 3,640 | 76% |
| | Lifetime Tons | 36 | 445 | 481 | 40,752 | 41,233 | 54,600 | 75% | 54,600 | 76% |
| Customer Bill Savings (millions) | Annual Dollars | \$0.0005 | \$0.01 | \$0.01 | \$0.9 | \$0.9 | \$0.32 | 272% | \$0.32 | 275% |
| | Lifetime Dollars | \$0.01 | \$0.1 | \$0.11 | \$12.9 | \$13.0 | \$4.72 | 273% | \$4.72 | 275% |
| Private Investment (millions) | Dollars | \$0.01 | \$0.03 | \$0.04 | \$3.6 | \$3.7 | \$7.0 | 52% | \$7.0 | 52% |
| Participants | Participants | 1 | 4 | 5 | 75 | 80 | 190 | 42% | 190 | 42% |
| Eligible Installers | | - | 6 | 6 | - | 6 | 20 | 30% | 20 | 30% |

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

⁴⁸ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁴⁹ The targets for Customer Bill Savings (millions), both Annual Dollars and Lifetime Dollars for Cumulative Current Target (2016) and total Target Through Initiative Completion (2019), are incorrect. The Annual Dollars Cumulative Current Target (2016) should be \$1,180,000 and the Lifetime Dollars Cumulative Current Target should be \$17,700,000. These same corrections apply to Total Target through Initiative Completion (2019). NYSERDA will correct these targets in future filings based on guidance from the Department of Public Service.

⁵⁰ A 15-year measure life was used when calculating the lifetime targets; however, a 20-year measure life should have been used. NYSERDA will correct the lifetime metrics in a future filing based on guidance from the Department of Public Service.

⁵¹ Completed projects through June 30, 2016 had the following changes: Renewable Energy Annual MWh went from 53 to five, Renewable Energy MWh Lifetime went from 793 to 68, CO2e Emission Reduction Annual Tons went from 28 to 2, CO2e Emission Reduction Lifetime Tons went from 417 to 36, Customer Bill Savings (millions) Annual Dollars went from \$.01 to \$.0005, Customer Bill Savings (millions) Lifetime Dollars went from \$0.11 to \$0.01, and Participants went from three to one. These were due to data quality review.

Table 24. Combined Heat & Power Resource Acquisition Transition Initiative Results^{52, 53, 54, 55, 56}

Approval Date: February 29, 2016

Launch Date: March 1, 2016

| Resource Acquisition Transition Initiative | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | 88,671 | 88,671 | 175,000 | 51% | 287,000 | 31% |
| | MWh Lifetime | - | - | - | 1,252,644 | 1,252,644 | 2,580,000 | 49% | 4,230,000 | 30% |
| | MMBtu Annual | - | - | - | - | - | (980) | - | (1,620) | - |
| | MMBtu Lifetime | - | - | - | - | - | (14,700) | - | (24,310) | - |
| | MW | - | - | - | 17 | 17 | 31 | 53% | 51 | 33% |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | 15,191 | 15,191 | 93,000 | 16% | 149,000 | 10% |
| | Lifetime Tons | - | - | - | 227,868 | 227,868 | 1,400,000 | 16% | 2,240,000 | 10% |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | \$7.66 | \$7.66 | \$24.7 | 31% | \$38.1 | 20% |
| | Lifetime Dollars | - | - | - | \$114.95 | \$114.95 | \$370 | 31% | \$571.0 | 20% |
| Private Investment (millions) | Dollars | - | - | - | \$105.60 | \$105.60 | \$98.0 | 108% | \$152 | 69% |
| Installations | Participants | - | - | - | 49 | 49 | 43 | 114% | 86 | 57% |
| MT Marketplace | | - | - | - | 3 | 3 | 2 | 150% | 24 | 13% |

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

⁵² Technical assistance energy savings and dollars metrics included for six CHP studies.

⁵³ Cumulative Current Target (2016) and Total Target through Initiative Completion (2019) contain metrics from the Market Transformation of Marketplace table in the Resource Acquisition Chapter, which could be considered indirect benefit targets. This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

⁵⁴ Committed benefits include one very large (>15MW) project in the early stages of NYSERDA review to which refinements will be made in future reports, as needed.

⁵⁵ CHP targets and reporting methods associated with fuel use to run the CHP systems are being examined and may be adjusted in future reports.

⁵⁶ Energy Efficiency values represent electric grid MWh savings from the use of CHP systems; natural gas required to run CHP systems (541,076 MMBtu cumulative annual and 8,116,140 MMBtu lifetime) is netted out of the emission reduction and customer bill savings values shown in this table. Emission reductions and customer bill savings are net, including both MWh which add to the benefits and additional natural gas required to run CHP systems which subtract from the benefits.

3 Market Development Initiative Specific Results

Table 25. Market Development Initiative Budgets and Spending ⁵⁷

| Initiative | Budget Approved as of September 30, 2016 ^a | Expended Funds ^b | Open Encumbrances ^c | Contract Pre-Encumbrances ^d | Committed Funds ^e | % of Approved Budget Committed ^f | Budget Approved Remaining Balance ^g |
|---|---|-----------------------------|--------------------------------|--|------------------------------|---|--|
| Market Characterization & Design Chapter | \$11,500,000 | \$121,809 | \$131,691 | \$4,039 | \$257,539 | 2% | \$11,242,461 |
| Commercial Chapter | | | | | - | | |
| Real Estate Tenant | \$25,500,000 | - | \$348,000 | \$1,000,000 | \$1,348,000 | 5% | \$24,152,000 |
| Real Time Energy Management | \$46,500,000 | - | \$300,000 | - | \$300,000 | 1% | \$46,200,000 |
| REV Campus Challenge | \$19,650,000 | - | \$125,000 | - | \$125,000 | 1% | \$19,525,000 |
| Commercial Chapter Total | \$91,650,000 | - | \$773,000 | \$1,000,000 | \$1,773,000 | 2% | \$89,877,000 |
| Industrial Chapter | | | | | - | | |
| Continuous Energy Improvement | \$9,980,739 | - | - | - | - | - | \$9,980,739 |
| Industrial Chapter Total | \$9,980,739 | - | - | - | - | - | \$9,980,739 |
| Communities Chapter | | | | | - | | |
| Clean Energy Communities | \$14,218,526 | - | - | - | - | - | \$14,218,526 |
| Communities Chapter Total | \$14,218,526 | - | - | - | - | - | \$14,218,526 |
| Large-Scale Renewables Chapter | | | | | - | | |
| Offshore Wind Master Plan | \$5,000,000 | - | - | \$50,000 | \$50,000 | 1% | \$4,950,000 |
| Offshore Wind Pre-Development Activities | \$10,000,000 | - | - | - | - | - | \$10,000,000 |
| Large-Scale Renewables Chapter Total | \$15,000,000 | - | - | \$50,000 | \$50,000 | 0.3% | \$14,950,000 |
| REV Technical Assistance Chapter | | | | | - | | |
| REV Connect | \$2,500,000 | - | \$2,140,144 | - | \$2,140,144 | 86% | \$359,856 |
| REV Technical Assistance Chapter Total | \$2,500,000 | - | \$2,140,144 | - | \$2,140,144 | 86% | \$359,856 |
| Energy Storage Chapter | | | | | - | | |
| Reducing Barriers to Distributed Deployment | \$24,450,000 | - | - | - | - | - | \$24,450,000 |
| Energy Storage Chapter Total | \$24,450,000 | - | - | - | - | - | \$24,450,000 |
| Clean Transportation Chapter | | | | | - | | |
| Electric Vehicles | \$39,500,000 | - | - | - | - | - | \$39,500,000 |
| Clean Transportation Chapter Total | \$39,500,000 | - | - | - | - | - | \$39,500,000 |

Table 25 continued

| | | | | | | | |
|---|----------------------|------------------|--------------------|--------------------|--------------------|-----------|----------------------|
| Agriculture Chapter | | | | | - | | |
| 2030 GLASE | \$5,000,000 | - | - | - | - | - | \$5,000,000 |
| Agriculture Chapter Total | \$5,000,000 | - | - | - | - | - | \$5,000,000 |
| Low- to Moderate-Income Chapter | | | | | - | | |
| RetrofitNY | \$30,503,500 | - | - | - | - | - | \$30,503,500 |
| REVitalize | \$725,000 | - | - | - | - | - | \$725,000 |
| Low-Income Forum on Energy | \$1,300,000 | - | - | - | - | - | \$1,300,000 |
| Healthy Homes Feasibility Study | \$215,000 | - | - | - | - | - | \$215,000 |
| Low- to Moderate-Income Chapter Total | \$32,743,500 | - | - | - | - | - | \$32,743,500 |
| Workforce Development and Training Chapter | | | | | - | | |
| Industry Partnerships | \$6,845,000 | - | - | - | - | - | \$6,845,000 |
| Workforce Development and Training Chapter Total | \$6,845,000 | - | - | - | - | - | \$6,845,000 |
| NYS Cost Recovery Fee | \$15,828,608 | \$496,863 | - | - | \$496,863 | 3% | \$15,331,745 |
| Total Market Development | \$269,216,373 | \$618,672 | \$3,044,835 | \$1,054,039 | \$4,717,546 | 2% | \$264,498,827 |

- a Funds approved by the DPS as of September 30, 2016.
- b Invoices processed for payment by NYSERDA.
- c Remaining funding obligated under a contract, purchase order, or incentive award.
- d Planned funding for contracts awarded and under negotiation.
- e The sum of Expended Funds, Open Encumbrances, and Contract Pre-Encumbrances.
- f The percentage of the budget that has been committed.
- g The difference between Budget Approved Funds and Committed Funds.

⁵⁷ NYSERDA has committed an additional \$5,000,000 to solicitations with upcoming due dates that are not included in the above table. When including these funds, NYSERDA has committed four percent of the approved budget to date for the Market Development Chapter. Committed benefits presented in this report do not include benefits associated with awards made as a result of these solicitations.

Table 26. Real Estate Tenant Initiative Results⁵⁸

Approval Date: May 23, 2016

Launch Date: July 19, 2016

| Innovation & Research Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2024) | % of Total Target through Initiative Completion (2024) |
|---|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | 5,600 | - | 124,900 | - |
| | MWh Lifetime | - | - | - | - | - | 44,800 | - | 998,900 | - |
| | MMBtu Annual | - | - | - | - | - | 5,900 | - | 131,800 | - |
| | MMBtu Lifetime | - | - | - | - | - | 47,200 | - | 1,053,000 | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | 3,300 | - | 72,900 | - |
| | Lifetime Tons | - | - | - | - | - | 26,000 | - | 582,000 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | \$0.776 | - | \$17.3 | - |
| | Lifetime Dollars | - | - | - | - | - | \$6.21 | - | \$139 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$0.544 | - | \$12.2 | - |
| Participants | Participants | - | - | - | - | - | 46 | - | 1,349 | - |

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

⁶⁴ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

Table 27. Key Milestones for Real Estate Tenant

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|---------------|------------|--|-------------------------|
| | 2016–2020 | Tenants will incorporate energy efficiency measures from tenant-specific packages into their designs. Observed gains from the National Resource Defense Council (NRDC), were 25-40% of energy saved above 2007 code; NYSERDA is projecting gains of 15-20% against the 2010 and 2012 code. The actual savings will be identified through measurement and verification (M&V). | |
| | 2018–2024 | Building specific packages demonstrate replicability of tenant-specific model to the whole building for development of building-specific packages. | |
| | 2018–2024 | Engagement with stakeholders involves all identified Market Actors. | |
| | 2018–2024 | Secure commitments from building owners and managers and brokers to provide building-specific packages to new tenants with leasing materials. | |
| | 2018–2024 | New tenants use building-specific energy efficiency packages (actual participation identified from results reported by building owner). | |
| | 2018–2024 | Projects demonstrate that building-specific packages can be used within the normal timeframe of the tenant fit-out process and do not slow down the process. | |
| | 2018–2024 | NYSERDA validates energy models, energy savings, incremental cost, and return on investment for tenant projects. | |
| | 2018–2024 | NYSERDA confirms economic savings/value while presenting soft cost (i.e., productivity) opportunities as additional benefits to the market. | |
| | 2018–2024 | NYSERDA gathers data on tenant productivity, satisfaction, and wellness through surveys created with each tenant’s Corporate Social Responsibility and Human Resource teams. | |
| | 2018–2024 | For buildings that offer tenant efficiency packages, 30% of new tenants use the package to implement energy efficiency measures that go above code. | |

Table 27 continued

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

Table 28. Real Time Energy Management (RTEM) Initiative Results⁵⁹

Approval Date: May 23, 2016

Launch Date: June 20, 2016

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2024) | % of Total Target through Initiative Completion (2024) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | 20,500 | - | 311,030 | - |
| | MWh Lifetime | - | - | - | - | - | 164,000 | - | 2,489,000 | - |
| | MMBtu Annual | - | - | - | - | - | 9,100 | - | 138,200 | - |
| | MMBtu Lifetime | - | - | - | - | - | 72,800 | - | 1,106,000 | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | 11,300 | - | 171,000 | - |
| | Lifetime Tons | - | - | - | - | - | 90,000 | - | 1,368,000 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | \$2.77 | - | \$42.1 | - |
| | Lifetime Dollars | - | - | - | - | - | \$22.2 | - | \$337 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$7.36 | - | \$292 | - |
| Participants | Participants | - | - | - | - | - | 30 | - | 700 | - |

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

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

Table 29. Key Milestones for Real Time Energy Management

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|---------------|------------|---|--|
| ✓ | 2016 | Secure RTEM Advisor and begin development of market standards | RTEM Advisor is 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 50 applications to date and 19 vendors are currently approved. |
| ✓ | 2016 | Stimulate interest and market activity with an open enrollment incentive offering. | The RTEM Program Opportunity Notice was launched June 20, 2016. Application submittals are in process and interest is expected to grow as more learn about the magnitude of the program and RTEM vendors are qualified. |
| ✓ | 2016 | The program's criteria for qualification of vendors, hardware, and software is introduced to the market and used as a road map for new vendors with the goal of becoming the industry standard. | The application process to become a qualified vendor has led to interactive conversations that allow firms to clearly identify areas of opportunity to expand their services and abilities. The program's criteria is causing these opportunities to be adopted sooner than would have occurred. |
| | 2016 | A Technical Guidance Document is drafted and tested. | After consulting with market providers, customers, and industry experts, it is recommended that this milestone's expected progress timing be adjusted to such a time when project level data has been obtained. Therefore, NYSERDA recommends the progress be adjusted from 2016 to 2017. |

Table 29 continued

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|----------------------|-------------------|---|--|
| | 2016 | A training platform for facility owners/operators is designed. | After consulting with market providers, customers, and industry experts, it is recommended that this milestone's expected progress timing be adjusted to such a time customer needs can be better defined through project level understanding. Therefore, NYSERDA recommends the progress be adjusted from 2016 to 2017. |
| | 2016–2020 | Incentives, Qualified Vendor Listing, and Independent RTEM advisor services help convert prospective customers into committed and installed RTEM projects. | |
| | 2016–2020 | NYSERDA market support and approach attract new RTEM vendors to the New York State market and increase business development investment of all RTEM vendors. | |
| | 2016–2020 | RTEM Advisor supports gaps in market confidence and identifies market approaches to eliminating gaps. | |
| | 2016–2020 | Peer-to-peer exchanges and RTEM advisor transfer learnings across the projects supported by NYSERDA and enhance success. | |
| | 2016–2020 | Technical Guidance Document is published. | |
| | 2016–2020 | NYSERDA in coordination with industry partners standardizes methodologies for calculating/analyzing costs and savings data. | Market indicators suggest innovative business models are embedding RTEM system costs into the service costs, also known as Platform as a Service (PaaS). The RTEM Program Opportunity Notice was revised in September 2, 2016 to allow for these innovative business models to take full advantage of the program. |
| | 2016–2020 | Training platform is available and used by facility owners/operators. | |

Table 29 continued

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|----------------------|-------------------|--|--------------------------------|
| | 2016–2020 | Continuous input from industry experts and key stakeholders help with test/measure/adjust methods. | |
| | 2018–2021 | NYSERDA direct supports are ratcheted downward as industry standardization is adopted and results of pilots/studies are shared broadly increasing customer confidence in the benefits and returns of RTEM. | |
| | 2018–2021 | Methods for capturing the potential benefits of RTEM for operations and maintenance of buildings are standardized and widely available. | |
| | 2018–2021 | Aggregated data sets and applications of RTEM data are robust enough to enable quick and proper evaluation of energy savings projects, thus removing the need for detailed, building specific energy audits to identify potential energy savings, thereby reducing customer acquisition and project costs. | |
| | 2018–2021 | NYSERDA explores the utilization of its RTEM data set to advance efforts at demand reduction and peak load shaping as well as its use in predicting and optimizing investments in energy efficiency. | |
| | 2022 and beyond | RTEM is the standard for quality energy metrics, efficient building operations, and accessing behind-the-meter data | |
| | 2022 and beyond | Qualified list and NYSERDA’s continued support is rendered obsolete due to market standardization and acceptance. | |
| | 2022 and beyond | RTEM is integrated into standard Building Management Systems (BMS) offerings and widely applied in buildings without BMS. | |

Table 30. Reforming the Energy Vision (REV) Campus Challenge Initiative Results⁶⁰

Approval Date: May 23, 2016

Anticipated Launch Date: Q1 2017

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2025) | % of Total Target through Initiative Completion (2025) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | * | - | 92,630 | - |
| | MWh Lifetime | - | - | - | - | - | * | - | 1,389,000 | - |
| | MMBtu Annual | - | - | - | - | - | * | - | 574,300 | - |
| | MMBtu Lifetime | - | - | - | - | - | * | - | 8,614,000 | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | 8,804 | - |
| | MWh Lifetime | - | - | - | - | - | * | - | 132,100 | - |
| | MW | - | - | - | - | - | * | - | 8 | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | * | - | 83,830 | - |
| | Lifetime Tons | - | - | - | - | - | * | - | 1,257,000 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | * | - | \$15.5 | - |
| | Lifetime Dollars | - | - | - | - | - | * | - | \$233 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | * | - | \$62.2 | - |
| Participants | Participants | - | - | - | - | - | 40 | - | 150 | - |

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

⁶⁰ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

Table 31. Key Milestones for REV Campus Challenge

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|----------------------|-------------------|---|--|
| | 2016–2019 | 120 out of 250 institutions sign up to be REV Campus Challenge Members. | The REV Campus Challenge has 55 Member institutions as of the close of Q3 2016. Of those institutions, 46 were part of a “First Movers” announcement during Earth Week 2016 to highlight the institutions that took the initiative to sign on to the REV Campus Challenge early and demonstrate their commitment to integrating clean energy into their campus, classroom, and community activities. |
| | 2016–2019 | Members make progress and receive recognition as demonstrated by new and revised planning, new commitments to sustainability goals and clean energy projects started and completed. | Member progress and opportunities for recognition will be collected during an annual member survey, which has not yet been completed for 2016. |
| | 2020–2022 | 140 out of 250 institutions sign up to be REV Campus Challenge Members. | |
| | 2020–2022 | Members continue to make progress and receive recognition as demonstrated by new and revised planning, new commitments to sustainability goals and clean energy projects started and completed. | |
| | 2020–2022 | 15% more NYS institutions participate in clean energy commitment opportunities, conferences/events, peer groups, etc., building a strong support network. | |
| | 2020–2022 | Annual/Semi-annual survey of Member institutions provides feedback on clean energy progress and changes in overall campus, student, and community mindset. | |
| | 2022–2025 | Members continue to make progress and receive recognition as demonstrated by new and revised planning, new commitments to sustainability goals and clean energy projects started and completed. | |
| | 2022–2025 | 25% more NYS institutions participate in clean energy commitment opportunities, conferences/events, peer groups, etc., building a strong support network. | |
| | 2022–2025 | Annual/semiannual survey of all institutions statewide provides feedback on clean energy progress and changes in overall campus, student, and community mindset. | |

Table 32. Continuous Energy Improvement Initiative On-Site Energy Manager Results⁶¹

Approval Date: May 23, 2016

Launch Date: September 12, 2016

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2018) | % of Total Target through Initiative Completion (2018) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | 15,000 | - | 42,000 | - |
| | MWh Lifetime | - | - | - | - | - | 225,000 | - | 630,000 | - |
| | MMBtu Annual | - | - | - | - | - | 175,000 | - | 500,000 | - |
| | MMBtu Lifetime | - | - | - | - | - | 2,630,000 | - | 7,500,000 | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | 17,800 | - | 50,400 | - |
| | Lifetime Tons | - | - | - | - | - | 267,000 | - | 756,000 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | \$2.76 | - | \$7.81 | - |
| | Lifetime Dollars | - | - | - | - | - | \$41.3 | - | \$117 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$20.2 | - | \$55.8 | - |
| Participants | Participants | - | - | - | - | - | 15 | - | 40 | - |

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

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

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

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|---------------|------------|---|---|
| | Years 1-2 | List of qualified energy-focused process consultants from which On-site Energy Management expertise can be sought and/or matched with industrial facilities. | The On-site Energy Manager solicitation (Program Opportunity Notice 3334) was released in September 2016 and is accepting applications. |
| | Years 1-2 | C-suite executive buy-in and engagement that provides momentum for energy planning and management activities at industrial sites. | The On-site Energy Manager solicitation (Program Opportunity Notice 3334) was released in September 2016 and is accepting applications. |
| | Years 1-2 | Industrial end user commitment to energy goal creation and realization is key to successful On-site Energy Manager engagements. | The On-site Energy Manager solicitation (Program Opportunity Notice 3334) was released in September 2016 and is accepting applications. |
| | Years 1-2 | Robust tracking and reporting of energy and non-energy benefits of the On-site Energy manager role. | The On-site Energy Manager solicitation (Program Opportunity Notice 3334) was released in September 2016 and is accepting applications. |
| | Years 2-3 | A credible business case that proves the benefits of on-site energy management in industrial facilities. Large sites will save at least 1,200 MWh and 15,000 MMBtu annually Medium sites will save at least 500 MWh and 5,000 MMBtu annually | |
| | Years 2-3 | Business case content for consultant marketing plans which address this need in the industrial market. | |
| | Year 3 | Long-term energy resource(s) dedicated to energy management, without NYSERDA support (e.g., manufacturer hires energy manager function in-house; continues contracting with On-Site Energy Manager consultant; or contracts with a new consultant). | |
| | Year 3 | Transition of knowledge and tools from pilot On-site Energy Managers to long-term energy resource. | |
| | Year 3 | Successful dissemination of training, road maps, case studies, and vetted consultant lists creates both supply for On-site Energy Manager by qualified technical consultants and demand for the role at industrial sites. | |

Table 34. Continuous Energy Improvement Initiative Strategic Energy Management Results⁶²

Approval Date: May 23, 2016

Anticipated Launch Date: November 2016

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments** | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2018) | % of Total Target through Initiative Completion (2018) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | 34,500 | - | 34,500 | - |
| | MWh Lifetime | - | - | - | - | - | 518,000 | - | 518,000 | - |
| | MMBtu Annual | - | - | - | - | - | 267,000 | - | 267,000 | - |
| | MMBtu Lifetime | - | - | - | - | - | 4,000,000 | - | 4,000,000 | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | 33,200 | - | * | - |
| | Lifetime Tons | - | - | - | - | - | 498,000 | - | 498,000 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | \$5.18 | - | \$5.18 | - |
| | Lifetime Dollars | - | - | - | - | - | \$77.7 | - | \$77.7 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$54.6 | - | \$54.6 | - |
| Participants | Participants | - | - | - | - | - | * | - | 20 | - |

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

⁶² This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

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

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|---------------|-------------------|--|--|
| | Year 1-2 | <p>Facilities understand how energy intensity is embedded in their process and have integrated energy management into their organizational culture.</p> <ul style="list-style-type: none"> • Facilities possess knowledge of Strategic Energy Management (have an energy map, identified goals and metrics, and have developed a project register identifying projects and an action plan for project implementation) and have a system for monitoring, tracking, and making decisions based on their energy use. | <p>The Strategic Energy Management solicitation is in final stages of approval with a goal launch date of November 2016, at which point applications will be accepted.</p> |
| | Year 2 and beyond | <p>Facility executives value and adopt Strategic Energy Management due to organizational change and systematic energy management that enables them to identify attractive investments for their facility.</p> <ul style="list-style-type: none"> • Continuation of energy champion and team beyond the cohort (for participating facilities) or the adoption of an energy champion and/or team (for new facilities). • Executive support to implement energy-related projects. | |
| | Year 2 and beyond | <p>Strategic Energy Management replaces the ad-hoc energy project approach resulting in deeper and continuous energy savings and energy decision-making at industrial facilities.</p> <ul style="list-style-type: none"> • Critical staff can express how the energy measures they have implemented have affected their bottom line. | |
| | Year 3 and beyond | <p>Market Actors seek out developed information and standardized tools as well as contractor support to implement and adopt Strategic Energy Management.</p> <ul style="list-style-type: none"> • Tracked inquiries and dissemination of case studies, training, Strategic Energy Management resources, and vetted consultant lists. | |

Table 36. Clean Energy Communities Initiative Results⁶³

Approval Date: May 23, 2016

Launch Date: August 3, 2016

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2018) | % of Total Target through Initiative Completion (2018) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | 16,800 | - | 73,300 | - |
| | MWh Lifetime | - | - | - | - | - | 252,000 | - | 1,099,000 | - |
| | MMBtu Annual | - | - | - | - | - | 302,000 | - | 1,318,000 | - |
| | MMBtu Lifetime | - | - | - | - | - | 4,540,000 | - | 19,780,000 | - |
| | MW | - | - | - | - | - | 7 | - | 31 | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | 25,100 | - | 109,300 | - |
| | MWh Lifetime | - | - | - | - | - | 376,000 | - | 1,640,000 | - |
| | MW | - | - | - | - | - | 14 | - | 63 | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | 40,300 | - | 175,700 | - |
| | Lifetime Tons | - | - | - | - | - | 605,000 | - | 2,631,000 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | \$6.64 | - | \$28.9 | - |
| | Lifetime Dollars | - | - | - | - | - | \$99.6 | - | \$434 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$10.6 | - | \$46.2 | - |
| Participants | Participants | - | - | - | - | - | 76 | - | 333 | - |

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

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

Table 37. Key Milestones for Clean Energy Communities

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|----------------------|-------------------|--|--|
| | 2016–2019 | 80 communities complete, and demonstrate replicability of, four out of ten High-Impact Actions and submit successful grant applications to the Clean Energy Communities Program to complete innovative clean energy projects. | Outreach contractors are actively engaging communities. Many local governments are working to complete High-Impact Actions |
| | 2016–2019 | After realizing the benefits associated with completing High-Impact Actions, many communities go on to pursue the more rigorous Climate Smart Communities (CSC) Certification. The number of Certified CSCs doubles, from 6 currently certified to 12 certified. | There are now nine Certified Climate Smart Communities. |
| | 2016–2019 | NYSERDA has conducted market research on impact of initial uptake of High-Impact Actions and has adjusted the Clean Energy Communities Program accordingly. NYSERDA will continuously compile feedback from communities on High-Impact Actions and associated tools and resources, and adjust accordingly. | |

Table 38. Offshore Wind Master Plan Initiative Results⁶⁴

Approval Date: May 23, 2016

Anticipated Launch Date: Q4 2016

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MMBtu Annual | - | - | - | - | - | * | - | * | - |
| | MMBtu Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | * | - | * | - |
| | Lifetime Tons | - | - | - | - | - | * | - | * | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | * | - | * | - |
| | Lifetime Dollars | - | - | - | - | - | * | - | * | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | * | - | * | - |
| Participants | Participants | - | - | - | - | - | * | - | * | - |

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

⁶⁴ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

Table 39. Key Milestones for Offshore Wind Master Plan

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|----------------------|-------------------|--|--|
| ✓ | 2016 | Publish an Offshore Wind Master Plan Blueprint to facilitate discussion and stakeholder engagement in the summer of 2016. | Blueprint completed. Blueprint 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. | First public Offshore Wind meeting held on 6/29/16. Additional meetings being planned. |
| | 2016–2017 | Publish the final Offshore Wind Master Plan, after completion of studies and no later than end of 2017. | |

Table 40. Offshore Wind Pre-Development Activities Initiative Results⁶⁵

Approval Date: May 23, 2016

Anticipated Launch Date: Q4 2016

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MMBtu Annual | - | - | - | - | - | * | - | * | - |
| | MMBtu Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | * | - | * | - |
| | Lifetime Tons | - | - | - | - | - | * | - | * | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | * | - | * | - |
| | Lifetime Dollars | - | - | - | - | - | * | - | * | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | * | - | * | - |
| Participants | Participants | - | - | - | - | - | * | - | * | - |

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

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

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

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|----------------------|-------------------|--|---|
| | | Reports resulting from pre-development work validating New York State Offshore Wind resource and proposing potential additional wind energy areas for development. | Planning started for procurement and deploying of a buoy for measuring wind, wave, and other data. Contractor hired to assist in developing measurement campaign. Additional planning started for environmental and other studies and surveys. |
| | | Reports providing site-specific data needed to support detailed siting, design, and permitting of offshore wind project(s). | Planning 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. Additional planning started for site-specific environmental, sea floor, and other studies and surveys. |

Table 42. REV Connect Initiative Results⁶⁶

Approval Date: May 23, 2016

Launch Date: August 9, 2016

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2018) | % of Total Target through Initiative Completion (2018) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MMBtu Annual | - | - | - | - | - | * | - | * | - |
| | MMBtu Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | * | - | * | - |
| | Lifetime Tons | - | - | - | - | - | * | - | * | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | * | - | * | - |
| | Lifetime Dollars | - | - | - | - | - | * | - | * | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | - | - | \$0.50 | - |
| Participants | Participants | - | - | - | - | - | * | - | * | - |

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

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

Table 43. Key Milestones for REV Connect

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|----------------------|-------------------|---|---|
| ✓ | Q3 2016 | Execute contract with partner to operate REV Connect. | REV Connect Contractor has been selected. The contract has been executed. |
| | Q3 2016 | Create information resources and summarize best practices. | Initial customer surveys have been completed and draft materials under development. |
| | Q4 2016 | Launch initial REV Connect platform to allow submission of project ideas. | |
| | Q4 2016 | Develop project evaluation criteria and process. | |
| | Q2 2017 | Draft Innovation Plan completed. | |

Table 44. Reducing Barriers to Deploying Distributed Energy Storage Initiative Results⁶⁷

Approval Date: August 17, 2016

Anticipated Launch Date: October 2016 issued Request for Proposals (RFP) seeking technical assistance contractors.
January 2017 issue value stacking pilot competitive solicitation.

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | 550 | - | 4,500 | - |
| | MWh Lifetime | - | - | - | - | - | 5,500 | - | 45,000 | - |
| | MMBtu Annual | - | - | - | - | - | * | - | * | - |
| | MMBtu Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | 1 | - | 8 | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | 289 | - | 2,370 | - |
| | Lifetime Tons | - | - | - | - | - | 2,890 | - | 23,700 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | \$0.07 | - | \$0.60 | - |
| | Lifetime Dollars | - | - | - | - | - | \$0.73 | - | \$5.99 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$3.40 | - | \$7.30 | - |
| Number of customers engaged (sites for developments) | Participants | - | - | - | - | - | 15 | - | 120 | - |
| Number of vendors engaged | Participants | - | - | - | - | - | 8 | - | 45 | - |

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

Table 45. Key Milestones for Reducing Barriers to Deploying Distributed Energy Storage

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|---------------|------------|---|---|
| | 2016 | Issue solicitation to competitively select technical consultants and organizations to assist with soft cost reduction strategies, quality assurance, and feasibility studies under value stacking pilots. | Solicitation in final form. (Released in November, 2016) |
| | 2017 | Lead acid, lithium-ion, and flow batteries are independently tested with results aggregated into first responder training materials for authorities having jurisdiction. | Battery burn and safety testing is underway. |
| | 2017 | Technical consultants or organizations to assist with soft cost reduction strategies, quality assurance, and feasibility studies are selected. | |
| | 2017 | Launch a competitive program funding value stacking pilots. | Engaging with distribution utilities and New York Independent System Operator (NYISO) to ensure coordination in value stacking pilots offering. |
| | 2017 | Expand scope of battery testing lab for additional chemistries to be tested. | |
| | 2017 | Model permitting guides are developed. | |
| | 2017 | Public platform is launched including use cases, system performance results, and fact sheets. | |
| | 2017 | Customers with deployed energy storage systems begin engaging for post installation quality assurance to validate savings. | |
| | 2017 | Safety testing is completed on additional emerging commercial chemistries. | |
| | 2017 | Market segmentation for NYSERDA customer acquisition activities supported under this investment plan expands to non-interval metered customers. | |
| | 2017 | Increasing numbers of customers seek information on storage solutions to mitigate their peak demand and electricity requirements, as determined through vendor interviews and the number of permits submitted to authorities having jurisdiction, surveyed at least annually. | |
| | 2017 | Increasing numbers of energy storage vendors are engaged in New York State, as surveyed at least annually. | |
| | 2018 | Safety testing is completed on additional emerging commercial chemistries. | |
| | 2018 | Model permitting guides are updated. | |

Table 45 continued

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

Table 46. Electric Vehicles Rebate Initiative Results⁶⁸

Approval Date: August 17, 2016

Anticipated Launch Date: Q4 2016

| Innovation & Research Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2020) | % of Total Target through Initiative Completion (2020) |
|---|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MMBtu Annual | - | - | - | - | - | 58,500 | - | 1,430,000 | - |
| | MMBtu Lifetime | - | - | - | - | - | 585,000 | - | 14,300,000 | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | 3,140 | - | 76,730 | - |
| | Lifetime Tons | - | - | - | - | - | 31,400 | - | 767,300 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | * | - | * | - |
| | Lifetime Dollars | - | - | - | - | - | * | - | * | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$42.0 | - | \$1,026.0 | - |
| Participants | Participants | - | - | - | - | - | 900-1500 | - | 21150-37500 | - |

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

Table 47. Key Milestones for Electric Vehicles Rebate

| Complete | Time Frame | Milestone | Explanation of Progress |
|----------|------------|---------------------------|------------------------------------|
| ✓ | 2016 | EV Rebate Program Launch. | Expected to launch Quarter 4, 2016 |

⁶⁸ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

Table 48. 2030 Greenhouse Lighting and Systems Engineering (GLASE) Initiative Results⁶⁹

Approval Date: September 15, 2016

Anticipated Launch Date: January 1, 2017

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | 3,470 | - | 3,740 | - |
| | MWh Lifetime | - | - | - | - | - | 34,700 | - | 34,700 | - |
| | MMBtu Annual | - | - | - | - | - | * | - | * | - |
| | MMBtu Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | 1,830 | - | 1,830 | - |
| | Lifetime Tons | - | - | - | - | - | 18,300 | - | 18,300 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | \$0.29 | - | \$0.29 | - |
| | Lifetime Dollars | - | - | - | - | - | \$2.92 | - | \$2.92 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$9.46 | - | \$9.46 | - |
| Participants | Participants | - | - | - | - | - | - | - | 25 | - |

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

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

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

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|---------------|------------|--|---|
| | 2016 | Contract with core Consortium members. | Development of Statement of Work is in progress |
| | 2016 | Review and approve Scientific Advisory Panel structure. | |
| | 2017 | Review and approve Consortium business plan to attain financial self-sustainability in 2023. | |
| | 2018 | Monitor small (6,000 square feet) pilot demonstration of a basic light and shade control system. | |
| | 2018 | Publish case study of demonstration. | |
| | 2019 | Monitor small (6,000 square feet) pilot demonstration of CO2 supplementation integrated with the light and shade control system. | |
| | 2019 | Monitor large (20,000 square feet) pilot demonstration of a basic light and shade control system. | |
| | 2019 | Publish case study of demonstrations. | |
| | 2020 | Monitor small (6,000 square feet) pilot demonstration of efficient LED lights integrated with the CO2 supplementation and light and shade control system. | |
| | 2020 | Monitor large (20,000 square feet) pilot demonstration of CO2 supplementation integrated with the light and shade control system. | |
| | 2020 | Publish case study of demonstrations. | |
| | 2021 | Monitor large (20,000 square feet) pilot demonstration of efficient LED lights integrated with the CO2 supplementation and light and shade control system. | |
| | 2021 | Publish case study of demonstration. | |
| | 2021 | Formal training offered to service providers. | |

Table 50. RetrofitNY Initiative Results⁷⁰

Approval Date: August 31, 2016

Anticipated Launch Date: March, 1 2017

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2025) | % of Total Target through Initiative Completion (2025) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | * | - | 187,000 | - |
| | MWh Lifetime | - | - | - | - | - | * | - | 3,740,000 | - |
| | MMBtu Annual | - | - | - | - | - | * | - | 3,350,000 | - |
| | MMBtu Lifetime | - | - | - | - | - | * | - | 67,100,000 | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | * | - | 290,000 | - |
| | Lifetime Tons | - | - | - | - | - | * | - | 5,800,000 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | * | - | \$56 | - |
| | Lifetime Dollars | - | - | - | - | - | * | - | \$1,120 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | * | - | \$1,410 | - |
| Participants | Participants | - | - | - | - | - | * | - | 100,000 | - |

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

⁷⁰ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

Table 51. Key Milestones for RetrofitNY

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

Table 52. REVitalize Initiative Results⁷¹

Approval Date: August 31, 2016

Anticipated Launch Date: Q1 2017

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2025) | % of Total Target through Initiative Completion (2025) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MMBtu Annual | - | - | - | - | - | * | - | * | - |
| | MMBtu Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | 3,000 | - |
| | MWh Lifetime | - | - | - | - | - | * | - | 59,900 | - |
| | MW | - | - | - | - | - | * | - | 2.4 | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | * | - | 1,580 | - |
| | Lifetime Tons | - | - | - | - | - | * | - | 31,500 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | * | - | 0.48 | - |
| | Lifetime Dollars | - | - | - | - | - | * | - | 9.46 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | * | - | 5.88 | - |
| Participants | Participants | - | - | - | - | - | * | - | 5 | - |

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

Table 53. Key Milestones for REVitalize

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|---------------|------------|--|-------------------------|
| | 2016 | Issue a competitive solicitation seeking proposals for a community energy planning effort that benefits LMI communities and residents. | In progress |
| | 2017 | Selection of five communities to receive financial and technical support, contract development, and contract execution by Q2 2017. | |
| | 2017 | Commencement of community planning activities, development of community plan, testing of the toolkit. | |
| | 2017 | Community-scale clean energy project development and implementation started. | |
| | 2017 | NYSERDA receives feedback from community groups and on the toolkit. | |
| | 2018 | Completion of five community energy projects. | |
| | 2019 | NYSERDA refines toolkit and conducts technology transfer to communicate effective models of finance and ownership, as well as the toolkit. | |

Table 54. Low- Income Forum on Energy Initiative Results⁷²

Approval Date: August 31, 2016

Launch Date: August 31, 2016

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2025) | % of Total Target through Initiative Completion (2025) |
|--|--------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Participants | Participants | - | 37 | 37 | - | 37 | 748 | 5% | 7,300 | 1% |

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

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

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|----------------------|-------------------|--|---|
| | 2016 | Issue a competitive solicitation for program support. | The solicitation is currently under development |
| | 2017 | Implement a series of regional meetings across the state in Q2 of 2017. | |
| | 2018 | Implement a statewide conference in Q2 of 2018. | |
| | 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 56. Key Milestones for Healthy Homes Feasibility

Approval Date: August 31, 2016

Anticipated Launch Date: Q4 2016

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|---------------|------------|--|-------------------------|
| | 2016 | Complete feasibility study and make a determination on whether to continue with the pilot design and implementation phase. | |
| | 2016 | Begin the pilot design phase, if NYSERDA and NYS agency partners decide to go forward. | |
| | 2017 | Pilot design is complete. | |
| | 2017 | Commencement of pilot activities. | |
| | 2018 | Preliminary determination of health benefits and healthcare cost savings. | |
| | 2021 | Dissemination of pilot results which may include peer-reviewed papers, presentations at conferences, and a white paper to share with potential long-term funders including Medicaid, HUD, Foundations, and others. | |

Table 57. Industry Partnerships Initiative Results⁷³

Approval Date: September 15, 2016

Anticipated Launch Date: Solicitation to be issued Q4 2016

| Market Development Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2019) | % of Total Target through Initiative Completion (2019) |
|--|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | * | - | 90,300 | - |
| | MWh Lifetime | - | - | - | - | - | * | - | 722,000 | - |
| | MMBtu Annual | - | - | - | - | - | * | - | 598,000 | - |
| | MMBtu Lifetime | - | - | - | - | - | * | - | 4,780,000 | - |
| | MW | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MW | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | * | - | 79,200 | - |
| | Lifetime Tons | - | - | - | - | - | * | - | 634,000 | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | * | - | \$15.3 | - |
| | Lifetime Dollars | - | - | - | - | - | * | - | \$122 | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | * | - | \$6.85 | - |
| Participants | Participants | - | - | - | - | - | * | - | 24 | - |

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

⁷³ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

Table 58. Key Milestones for Industry Partnerships

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|---------------|---------------|---|---|
| | 2016 | Convene industry partners for building operation and maintenance. | Building operations and maintenance partners were convened and one-on-one discussions with industry partners will continue through 2017. |
| | 2016 | Identify employer champions, those who will help NYSERDA to lead the initiative, for building operations and maintenance. | Staff is still working to identify industry champions who will help lead the initiative. |
| | 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. While some interventions have been identified, staff continues to test interventions with industry partners and the market. |
| | 2016 | Implement one to two business case demonstrations to show value of operations and maintenance training. | Planning is underway for the first business case demonstration, which is expected to start Q4 2016. |
| | 2016 | Begin to collect data from demonstration sites. | |
| | 2016 | Identify additional demonstrations (for a total of six business case demonstrations identified and implemented) for implementation in 2017. | Several opportunities for additional business case demonstrations are being investigated. |
| | 2016 | Identify additional areas (by sectors, industry or technology) to initiate industry partnership strategy to address workforce development and training needs to advance goals of CEF. | |
| | 2016 | Issue a solicitation to support the development of building operations and maintenance training initiatives that address skill gaps and facilitate career paths. | A draft solicitation will be sent to a technical evaluation panel for review and comments in November 2016. |
| | 2017 | Issue contracts resulting from the solicitation(s). | |
| | 2017 | Revise and reissue solicitation, one to two additional times, if necessary based on results and findings from the solicitation issued in 2016. | |
| | 2017 | Data collected from demonstration sites to help demonstrate the business case for training. | |
| | 2017 | Case studies shared with industry. | |
| | 2017 | Templates available to illustrate models and training options. | |
| | 2018 | Data collection from all demonstrations completed. | |
| | 2018 | Execute any remaining contracts from 2017 solicitation, if applicable. | |

4 Innovation & Research Initiative Specific Results

Table 59. Innovation & Research Initiative Budgets and Spending^{74, 75}

| Initiative | Budget Approved as of September 30, 2016 ^a | Expended Funds ^b | Open Encumbrances ^c | Contract Pre-Encumbrances ^d | Committed Funds ^e | % of Approved Budget Committed ^f | Budget Approved Remaining Balance ^g |
|---|---|-----------------------------|--------------------------------|--|------------------------------|---|--|
| Market Characterization & Design Chapter | \$250,000 | - | - | - | - | - | \$250,000 |
| Grid Modernization Chapter | | | | | | | |
| DER Interconnection | \$6,300,000 | \$229,175 | \$205,825 | - | \$435,000 | 7% | \$5,865,000 |
| High Performing Grid | \$110,500,000 | - | - | - | - | | \$110,500,000 |
| Grid Modernization Chapter Total | \$116,800,000 | \$229,175 | \$205,825 | - | \$435,000 | 0.4% | \$116,365,000 |
| Innovation Capacity and Business Development Chapter | | | | | | | |
| CleanTech Startup Growth | \$19,000,000 | - | - | - | - | - | \$19,000,000 |
| Innovation Capacity and Business Development Chapter | \$19,000,000 | - | - | - | - | - | \$19,000,000 |
| Building Innovation Chapter | | | | | | | |
| NextGen HVAC | \$15,000,000 | - | - | \$10,000 | \$10,000 | 0.1% | \$14,990,000 |
| Building Innovation Chapter Total | \$15,000,000 | - | - | \$10,000 | \$10,000 | 0.1% | \$14,990,000 |
| Clean Transportation Chapter | | | | | | | |
| Electric Vehicles | \$11,850,000 | - | - | - | - | - | \$11,850,000 |
| Clean Transportation Chapter Total | \$11,850,000 | - | - | - | - | - | \$11,850,000 |
| NYS Cost Recovery Fee | \$4,152,594 | \$8,590 | - | - | \$8,590 | 0.2% | \$4,144,004 |
| Innovation Capacity and Bus. Dev. Chapter Total | \$167,052,594 | \$237,765 | \$205,825 | \$10,000 | \$453,590 | 0.3% | \$166,599,004 |

^a Funds approved by DPS as of September 30, 2016.

^b Invoices processed for payment by NYSERDA.

^c Remaining funding obligated under a contract, purchase order or incentive award.

^d Planned funding for contracts awarded and under negotiation

^e The sum of Expended Funds, Open Encumbrances and Contract Pre-Encumbrances.

^f The percentage of the budget that has been committed.

^g The difference between Budget Approved Funds and Committed Funds.

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

⁷⁵ NYSERDA has committed an additional \$13,500,000 to solicitations with upcoming due dates that are not included in the table above. When including these funds, NYSERDA has committed eight percent of the approved budget to date for the Innovation and Research Chapter. Committed benefits presented in this report do not include benefits associated with awards made as a result of these solicitations.

Table 60. Distributed Energy Resource Interconnection Initiative Results⁷⁶

Approval Date: May 23, 2016

Anticipated Launch Date: October 2016

| Innovation & Research Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | 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 | - | - | - | - | - | \$3.35 | - | \$5.83 | - |
| Participants | Participants | - | - | - | - | - | 3 | - | 13 | - |

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

⁷⁶ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

Table 61. Key Milestones for Distributed Energy Resource Interconnection

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|---------------|------------|--|---|
| ✓ | Q3 2016 | Contract with a consultant to conduct a comprehensive analysis of technology gaps and create a roadmap for advancement of the technology and tools necessary to support an advanced, integrated, high-performing grid in New York. | Consulting contract established. |
| ✓ | Q3 2016 | Contract with one or more research/consulting organizations to provide technical knowledge and support for DER interconnection improvements in New York. | Contracts in place with three research/consulting organizations. |
| | Q3 2016 | Launch a competitive program funding opportunity focused on innovation to reduce DER interconnection burdens in New York State. | Competitive funding program opportunity launching 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. Collaboration model to be launch in Q4 2016. |
| | Q1 2017 | Contract with awardees selected under the funding opportunity focused on innovation to reduce DER interconnection burdens in New York State. | |
| | Q2 2017 | Grid Modernization Roadmap complete. | |

Table 62. High Performing Grid Initiative Results⁷⁷

Approval Date: May 23, 2016

Launch Date: September 16, 2016

| Innovation & Research Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2022) | % of Total Target through Initiative Completion (2022) |
|---|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| 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 | - | - | - | - | - | \$3.95 | - | \$84.25 | - |
| Participants | Participants | - | - | - | - | - | 6 | - | 64 | - |

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

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

Table 63. 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 in final form (Released in October 2016, with initial proposal due date in January 2017) |
| | 2017 | Enter into contracts for projects awarded under the broad competitive solicitation #1. | |
| | 2017 | Identify near-term opportunities for applied research that are aligned with utility supplemental DSIPs and the NY Grid Modernization Roadmap. | |
| | 2017 | Issue targeted competitive solicitation #2 guided by utility supplemental DSIPs and the NY Grid Modernization Roadmap. | |
| | 2017 | Enter into contracts for projects awarded under the targeted competitive solicitation #2. | |
| | 2018 | Identify technology gaps necessary to support community grid operation based on completed NY Prize Stage 1 evaluations. | |
| | 2018 | Issue broad competitive solicitation #3. | |
| | 2018 | Enter into contracts for projects awarded under the broad competitive solicitation #3. | |
| | 2018 | Issue targeted competitive solicitation #4. | |
| | 2019 | Enter into contracts for projects awarded under the targeted competitive solicitation #4. | |
| | 2019 | Issue broad competitive solicitation #5. | |
| | 2019 | Enter into contracts for projects awarded under the broad competitive solicitation #5. | |
| | 2020 | Issue targeted competitive solicitation #6. | |
| | 2020 | Enter into contracts for projects awarded under the targeted competitive solicitation #6. | |
| | 2020 | Issue broad competitive solicitation #7. | |
| | 2021 | Enter into contracts for projects awarded under the broad competitive solicitation #7. | |
| | 2021 | Issue targeted competitive solicitation #8. | |

Table 63 continued

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|---------------|------------|---|-------------------------|
| | 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 64. Cleantech Startup Growth Initiative Results⁷⁸

Approval Date: May 23, 2016

Anticipated Launch Date: October 2016

| Innovation & Research Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | 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 | - | - | - | - | - | * | - | * | - |
| CO ₂ e Emission Reduction (metric tons) | Annual Tons | - | - | - | - | - | * | - | * | - |
| | Lifetime Tons | - | - | - | - | - | * | - | * | - |
| Customer Bill Savings (millions) | Annual Dollars | - | - | - | - | - | * | - | * | - |
| | Lifetime Dollars | - | - | - | - | - | * | - | * | - |
| Private Investment (millions) | Dollars | - | - | - | - | - | \$75.0 | - | \$225 | - |
| Participants | Participants | - | - | - | - | - | 32 | - | 191 | - |

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

⁷⁸ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

Table 65. Key Milestones for Cleantech Startup Growth Incubators

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|----------------------|-------------------|---|---|
| ✓ | 2016 | First competitive solicitation launched. | Solicitation in final form. (Solicitation released in October 2016 with due dates in December 2016 and October 2017). |
| | 2017 | Awards from first solicitation are contracted. | |
| | 2017 | Second competitive solicitation launched. | |
| | Starting 2017 | Networking Event held. | |
| | Starting 2017 | Entrepreneur Bootcamp held. | |
| | 2018 | Awards from second solicitation are contracted. | |

Table 66. Key Milestones for Cleantech Startup Growth Ignition Grants

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|----------------------|-------------------|--|---|
| | 2017 | Formal Voice of Customer exercise is completed. | Customer Discovery/Market Validation exercise has been initiated. |
| | 2017 | Solicitation launched. | Solicitation is currently under development. Expected release date is late winter/early spring. |
| | 2017 | Establish Investment Committee. | |
| | Starting 2017 | Investment Committee Meetings held. | |
| | Starting 2017 | Launch Ignition Grants solicitation and issue awards on ongoing basis. | Solicitation is currently under development. Expected release date is late winter/early spring. |

Table 67. Key Milestones for Cleantech Startup Growth Geographic Coverage

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|----------------------|-------------------|--|---|
| | 2016 | Competitive solicitation launched. | Solicitation in final form. (Solicitation released in October 2016 with due dates in December 2016 and October 2017). |
| | 2017 | Awards from solicitation are contracted (~6 months following solicitation due date). | |
| | 2017 | Inventory of Entrepreneurial Assets in Southern Tier is completed. | |
| | 2017 | Establish Entrepreneurship Training Programs. | |
| ✓ | Starting 2017 | Networking Events held. | Ongoing networking events have already been held and more are planned for future dates. |

Table 68. NextGen HVAC Initiative Results⁷⁹

Approval Date: August 17, 2016

Anticipated Launch Date: Request for Information (RFI) to be released Q4 2016

| Innovation & Research Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2017) | % of Cumulative Current Target (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 | - | - | - | - | - | \$20.0 | - | \$75.0 | - |
| Participants | Participants | - | - | - | - | - | 5 | - | 25* | - |

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

Table 69. Key Milestones for NextGen HVAC

| Complete ✓ | Time Frame | Milestone | Explanation of Progress |
|----------------------|-------------------|--|--|
| | 2016 | Issue RFI, evaluate and establish technology challenge areas and targets. | Technical Analysis of challenge areas is underway. Request for Information (RFI) in development and will be issued in Q4 2016. |
| | 2016 | Issue 1st Technology Challenge. | |
| | 2017 | Contract projects from 1st Technology Challenge. | |
| | 2017 | Review portfolio of activities, solicit market input and reassess technology challenges areas and targets. | |
| | 2017 | Issue 2nd Technology Challenge. | |
| | 2018 | Contract projects from 2nd Technology Challenge. | |
| | 2018 | Review portfolio of activities, benefits to date, solicit market input and reassess technology challenges areas and targets. | |
| | 2018 | Issue 3rd Technology Challenge. | |
| | 2019 | Contract projects from 3rd Technology Challenge. | |

Table 70. Electric Vehicles Innovation Initiative Results⁸⁰

Approval Date: August 17, 2016

Anticipated Launch Date: November 1, 2016

| Innovation & Research Initiative Specific Results | Units | Completed Projects through June 30, 2016 with Adjustments | Completed Projects through 7/1/16-9/30/16 | Total Completed Projects through September 30, 2016 | Current Pipeline Through September 30, 2016 (Committed but not complete) | Grand Total Completed Projects + Pipeline | Cumulative Current Target (2016) | % of Cumulative Current Target (2016) | Total Target through Initiative Completion (2021) | % of Total Target through Initiative Completion (2021) |
|---|------------------|---|---|---|--|---|----------------------------------|---------------------------------------|---|--|
| Energy Efficiency | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| | MMBtu Annual | - | - | - | - | - | * | - | * | - |
| | MMBtu Lifetime | - | - | - | - | - | * | - | * | - |
| Renewable Energy | MW | - | - | - | - | - | * | - | * | - |
| | MWh Annual | - | - | - | - | - | * | - | * | - |
| | MWh Lifetime | - | - | - | - | - | * | - | * | - |
| CO2e Emission Reduction (metric tons) | MW | - | - | - | - | - | * | - | * | - |
| | Annual Tons | - | - | - | - | - | * | - | * | - |
| Customer Bill Savings (millions) | Lifetime Tons | - | - | - | - | - | * | - | * | - |
| | Annual Dollars | - | - | - | - | - | * | - | * | - |
| Private Investment (millions) | Lifetime Dollars | - | - | - | - | - | * | - | * | - |
| | Dollars | - | - | - | - | - | \$0.2 | - | \$31.7 | - |
| Participants | Participants | - | - | - | - | - | 2 | - | 33 | - |

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

⁸⁰ This report reflects direct benefits from programs. Indirect benefits are not reflected in this report because it will take time for the benefits to be realized.

Table 71. Key Milestones for Electric Vehicles Innovation

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

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.

To learn more about NYSERDA's programs and funding opportunities, visit nyserda.ny.gov or follow us on Twitter, Facebook, YouTube, or Instagram.

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

17 Columbia Circle
Albany, NY 12203-6399

toll free: 866-NYSERDA
local: 518-862-1090
fax: 518-862-1091

info@nyserda.ny.gov
nyserda.ny.gov



State of New York

Andrew M. Cuomo, Governor

New York State Energy Research and Development Authority

Richard L. Kauffman, Chair | John B. Rhodes, President and CEO

