



**NYSERDA**

# **Clean Energy Fund Quarterly Performance Report**

**Through June 30, 2016**

**Final Report**

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

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

### **Mission Statement:**

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

### **Vision Statement:**

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



**Clean Energy Fund  
Quarterly Performance Report  
Through June 30, 2016**

*Final Report*

Prepared by:

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

Albany, NY

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# 1 Overview

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

The CEF supports Governor Andrew M. Cuomo's Clean Energy Standard mandate that requires 50% of New York 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.<sup>1</sup> This order required quarterly reporting for the Market Development and Innovation and Research Portfolios about:

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

This report represents quarterly activity through June 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,<sup>2</sup> as well as several initiatives in the Market Development and Innovation and Research Chapters, which were approved by DPS on May 23, 2016.<sup>3</sup>

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

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

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

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

		Cumulative Annual Benefits		Lifetime Benefits	
		Cumulative Progress through June 30, 2016	Minimum Projected Benefits 2016-2025	Cumulative Progress through June 30, 2016	Minimum Projected Benefits 2016-2025
Energy Efficiency	MWh	0.05	10.6	0.75	*
	MMBtu	0.29	13.4	4.59	*
	MW	0	*	0	*
Renewable Energy	MWh	0.001	*	0.01	88
	MW	0.000	*	0	*
CO2 Emission Reductions (metric tons)		0.04	*	0.64	133
Customer Bill Savings		\$6.95	*	\$116.15	\$39,131
Private Investment		\$47.86	*	\$47.86	\$29,356

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

<sup>4</sup> The Renewable Energy Minimum Project Benefits Target is based on the estimated benefits of NY-Sun. As of June 30, 2016, NY Sun has contributed 29,655,600 Lifetime MWh toward this target.

<sup>5</sup> The Private Investment Target includes estimated benefits from NY-Sun and NY Green Bank. These programs are reported in separate reports on a quarterly basis.

<sup>6</sup> Bill savings represent savings for participants of NYSERDA programs.

<sup>7</sup> 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.

<sup>8</sup> 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 2. Market Development and Innovation & Research Portfolio Level Budgets and Spending <sup>9</sup>**

Initiative	PSC Ordered Program Budget Funds <sup>a</sup>	Budget Approved as of June 30, 2016 <sup>b</sup>	Expended Funds <sup>c</sup>	Open Encumbrances <sup>d</sup>	Pre-Encumbrances <sup>e</sup>	Committed Funds <sup>f</sup>	% of Approved Budget Committed <sup>g</sup>	Budget Approved Remaining Balance <sup>h</sup>
Market Development								
Program Funds	\$2,386,760,624	\$529,503,774	\$3,847,029	\$4,824,461	\$22,330,991	\$31,002,481	6%	\$498,501,293
NYS Cost Recovery Fee								
Innovation & Research								
Program Funds	\$629,833,404	\$26,203,857	\$78,246	\$125,000	\$60,000	\$263,246	1%	\$25,940,611
NYS Cost Recovery Fee								
Administration	\$273,601,311	\$50,268,403	\$4,702,144	\$80,407	\$20,183	\$4,802,734	10%	\$45,465,669
Evaluation	\$130,200,000	\$22,379,000	\$39,330	-	-	\$39,330	-	-
<b>Total</b>	<b>\$3,420,395,339</b>	<b>\$628,355,034</b>	<b>\$8,666,749</b>	<b>\$5,029,868</b>	<b>\$22,411,174</b>	<b>\$36,107,791</b>	<b>6%</b>	<b>\$569,907,573</b>

<sup>a</sup> CEF Order authorized CEF funding.

<sup>b</sup> Funds approved by DPS as of June 30, 2016.

<sup>c</sup> Invoices processed for payment by NYSERDA.

<sup>d</sup> Remaining funding obligated under a contract, purchase order or incentive award.

<sup>e</sup> Planned funding for contracts awarded and under negotiation.

<sup>f</sup> The sum of Expended Funds, Open Encumbrances and Pre-Encumbrances.

<sup>g</sup> The percentage of the budget that has been committed.

<sup>h</sup> The difference between Budget Approved Funds and Committed Funds.

<sup>9</sup> Values for PSC Ordered Program Budget Funds are the revised budgets after adjusting for the shortfall in uncommitted funds available for rollover into the CEF. Update to the Budget and Benefits Tables were filed on August 1, 2016 to reflect these changes.

**Table 3. Market Development and Innovation & Research Portfolio Annual Level Benefits, Commitment Basis**<sup>10, 11, 12</sup>

Initiative	Completed Projects through June 30, 2016	Current Pipeline Through June 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
<b>Market Development</b>							
Energy Efficiency (MWh)	1,093	44,004	45,097	620,500	7%	1,550,000	3%
Energy Efficiency (MMBtu)	38,044	251,170	289,214	4,495,000	6%	9,647,000	3%
Renewable Energy (MWh)	53	660	713	*	-	*	-
CO2e Reductions (metric tons)	2,804	36,630	39,435	*	-	*	-
Customer Bill Savings (\$ million)	\$0.70	\$6.25	\$6.95	*	-	*	-
Private Investment (\$ million)	\$6.39	\$41.46	\$47.86	*	-	*	-
<b>Innovation and Research</b>							
Energy Efficiency (MWh)	-	-	-	*	-	*	-
Energy Efficiency (MMBtu)	-	-	-	*	-	*	-
Renewable Energy (MWh)	-	-	-	*	-	*	-
CO2e Reductions (metric tons)	-	-	-	*	-	*	-
Customer Bill Savings (\$ million)	-	-	-	*	-	*	-
Private Investment (\$ million)	-	-	-	\$78.4	-	\$231	-
<b>Total Energy Efficiency (MWh)</b>	<b>1,093</b>	<b>44,004</b>	<b>45,097</b>	-	-	-	-
<b>Total Energy Efficiency (MMBtu)</b>	<b>38,044</b>	<b>251,170</b>	<b>289,214</b>	-	-	-	-
<b>Total Renewable Energy (MWh)</b>	<b>53</b>	<b>660</b>	<b>713</b>	-	-	-	-
<b>Total CO2e Reductions (metric tons)</b>	<b>2,804</b>	<b>36,630</b>	<b>39,435</b>	-	-	-	-
<b>Total Customer Bill Savings (\$ million)</b>	<b>\$0.70</b>	<b>\$6.25</b>	<b>\$6.95</b>	-	-	-	-
<b>Total Private Investment (\$ million)</b>	<b>\$6.39</b>	<b>\$41.46</b>	<b>\$47.86</b>	-	-	-	-

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

<sup>10</sup> 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.

<sup>11</sup> Targets and benefits include initiatives filed and approved through June 30, 2016.

<sup>12</sup> 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 4. Market Development and Innovation & Research Portfolio Lifetime Level Benefits, Commitment Basis**<sup>13, 14, 15</sup>

Initiative	Completed Projects through June 30, 2016	Current Pipeline Through June 30, 2016 (Committed but not complete)	Grand Total Completed Projects + Pipeline	Cumulative Current Lifetime Target (2016)	% of Cumulative Lifetime Target (2016)	Total Lifetime Target through 2025	% of Total Lifetime Target through 2025
<b>Market Development</b>							
Energy Efficiency (MWh)	17,728	732,997	750,725	*	-	*	-
Energy Efficiency (MMBtu)	649,996	3,938,701	4,588,697	*	-	*	-
Renewable Energy (MWh)	793	8,730	9,523	*	-	2,464,000	0.4%
CO2e Reductions (metric tons)	47,494	596,311	643,805	9,237,000	7%	20,540,000	3%
Customer Bill Savings (\$ million)	\$11.92	\$104.23	\$116.15	\$1,504	8%	\$3,699	3%
Private Investment (\$ million)	\$6.39	\$41.46	\$47.86	\$683	7%	\$1,687	3%
<b>Innovation and Research</b>							
Energy Efficiency (MWh)	-	-	-	*	-	*	-
Energy Efficiency (MMBtu)	-	-	-	*	-	*	-
Renewable Energy (MWh)	-	-	-	*	-	*	-
CO2e Reductions (metric tons)	-	-	-	*	-	*	-
Customer Bill Savings (\$ million)	-	-	-	*	-	*	-
Private Investment (\$ million)	-	-	-	\$78.4	-	\$231	-
<b>Total Energy Efficiency (MWh)</b>	<b>17,728</b>	<b>732,997</b>	<b>750,725</b>				
<b>Total Energy Efficiency (MMBtu)</b>	<b>649,996</b>	<b>3,938,701</b>	<b>4,588,697</b>				
<b>Total Renewable Energy (MWh)</b>	<b>793</b>	<b>8,730</b>	<b>9,523</b>				
<b>Total CO2e Reductions (metric tons)</b>	<b>47,494</b>	<b>596,311</b>	<b>643,805</b>				
<b>Total Customer Bill Savings (\$ million)</b>	<b>\$11.9</b>	<b>\$104.2</b>	<b>\$116.2</b>				
<b>Total Private Investment (\$ million)</b>	<b>\$6.4</b>	<b>\$41.5</b>	<b>\$47.9</b>				

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

<sup>13</sup> 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.

<sup>14</sup> Targets and benefits include initiatives filed and approved through June 30, 2016.

<sup>15</sup> 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.

## 2 Resource Acquisition Transition Initiative Specific Results

Table 5. Resource Acquisition Transition Initiative Level Budgets and Spending<sup>16</sup>

Initiative	Budget Approved as of June 30, 2016 <sup>a</sup>	Expended Funds <sup>b</sup>	Open Encumbrances <sup>c</sup>	Pre-Encumbrances <sup>d</sup>	Committed Funds <sup>e</sup>	% of Approved Budget Committed <sup>f</sup>	Budget Approved Remaining Balance <sup>g</sup>
<b>Resource Acquisition Transition Chapter</b>							
Commercial	\$37,000,000	\$7,984	\$205,884	\$593,120	\$806,988	2%	\$36,193,012
Industrial	\$44,100,000	\$7,670	\$1,181,812	\$3,709,830	\$4,899,312	11%	\$39,200,688
Agriculture	\$3,600,000	\$61,749	\$1,043,204	\$2,500	\$1,107,453	31%	\$2,492,547
Multifamily Market Rate	\$5,195,862	-	\$63,222	-	\$63,222	1%	\$5,132,640
Single Family Market Rate	\$18,889,680	\$592,762	-	\$901,125	\$1,493,887	8%	\$17,395,793
LMI Single Family	\$107,371,400	\$2,951,455	-	\$5,722,771	\$8,674,226	8%	\$98,697,174
LMI Multifamily	\$33,862,500	-	\$412,135	-	\$412,135	1%	\$33,450,365
Commercial New Construction	\$24,683,975	-	\$499,280	\$6,539,205	\$7,038,485	29%	\$17,645,490
Low Rise New Construction	\$10,836,000	-	-	-	-	-	\$10,836,000
Multifamily New Construction	\$10,155,138	-	\$474,819	-	\$474,819	5%	\$9,680,319
Anaerobic Digesters	\$12,150,000	-	-	-	-	-	\$12,150,000
Fuel Cells	\$6,000,000	-	-	-	-	-	\$6,000,000
Small Wind	\$6,090,000	\$5,000	\$10,000	\$218,400	\$233,400	4%	\$5,856,600
Solar Thermal	\$3,000,000	-	-	\$178,725	\$178,725	6%	\$2,821,275
Combined Heat & Power	\$48,550,000	\$61,352	\$934,105	\$2,075,171	\$3,070,628	6%	\$45,479,372
<b>TOTAL</b>	<b>\$371,484,555</b>	<b>\$3,687,972</b>	<b>\$4,824,461</b>	<b>\$19,940,847</b>	<b>\$28,453,280</b>	<b>8%</b>	<b>\$343,031,275</b>

Table notes are on the next page

<sup>16</sup> \$2,580,300 of committed funds are included in these Combined Heat & Power Resource Acquisition Transition Initiative Results for projects that would be eligible under the rules of the Indian Point Energy Center (IPEC) Reliability Contingency Plan. NYSERDA expects to reallocate these benefits if its petition to reopen IPEC funds, filed on May 26, 2016, is approved by the Public Service Commission.

- a Funds approved by DPS as of June 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 Pre-Encumbrances.
- f The percentage of the budget that has been committed.
- g The difference between Budget Approved Funds and Committed Funds.

**Table 6. Commercial Resource Acquisition Transition and FlexTech Initiative Results**<sup>17, 18, 19</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	3,148	3,148	77,000	4%	121,000	3%
	MWh Lifetime	-	51,947	51,947	1,152,000	5%	1,811,000	3%
	MMBtu Annual	-	25,486	25,486	729,000	3%	1,113,000	2%
	MMBtu Lifetime	-	420,520	420,520	13,113,000	3%	20,032,000	2%
	MW	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	3,011	3,011	79,000	4%	123,000	2%
	Lifetime Tons	-	49,676	49,676	1,302,000	4%	2,016,000	2%
Customer Bill Savings (millions)	Annual Dollars	-	\$0.56	\$0.56	\$14.80	4%	\$23.1	2%
	Lifetime Dollars	-	\$9.23	\$9.23	\$222	4%	\$347	3%
Private Investment (millions)	Dollars	-	\$0.7	\$0.71	\$88	1%	\$124	1%
Technical Assistance	Participants	-	26	26	176	15%	320	8%
Implementation Assistance		-	-	-	70	-	70	-

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

<sup>17</sup> FlexTech (Technical Assistance) includes five 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 23).

<sup>18</sup> 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.

<sup>19</sup> 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 7. Industrial Resource Acquisition Transition Initiative Results**<sup>20, 21, 22</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	24,784	24,784	201,000	12%	292,000	8%
	MWh Lifetime	-	371,762	371,762	3,012,000	12%	4,387,000	8%
	MMBtu Annual	-	199,009	199,009	1,944,000	10%	2,861,000	7%
	MMBtu Lifetime	-	2,985,136	2,985,136	29,160,000	10%	42,910,000	7%
	MW	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO <sub>2</sub> e Emission Reduction (metric tons)	Annual Tons	-	23,399	23,399	209,000	11%	306,000	8%
	Lifetime Tons	-	350,982	350,982	3,132,000	11%	4,586,000	8%
Customer Bill Savings (millions)	Annual Dollars	-	\$3.30	\$3.30	\$11.7	28%	\$17.2	19%
	Lifetime Dollars	-	\$49.5	\$49.5	\$175	28%	\$258	19%
Private Investment (millions)	Dollars	-	\$29.7	\$29.7	\$174	17%	\$219	14%
IPE	Participants	-	20	20	250	8%	285	7%
Technical Assistance		-	7	7	120	6%	320	2%

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

<sup>20</sup> 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.

<sup>21</sup> 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.

<sup>22</sup> 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 should be \$476,000,000. The Total Target through Initiative Completion (2019) should be \$46,000,000 and the Lifetime Dollars Cumulative Current Target should be \$696,000,000. NYSERDA will correct these targets in future filings based on guidance from the Department of Public Service.

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

**Approval Date:** February 29, 2016

**Launch Date:** March 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	178	1,040	1219	6,000	20%	12,000	10%
	MWh Lifetime	2,674	15,604	18278	91,000	20%	182,000	10%
	MMBtu Annual	146	91	237	21,000	1%	41,000	1%
	MMBtu Lifetime	2,189	1,372	3560	308,000	1%	615,000	1%
	MW	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	94	552	646	4,000	16%	9,000	7%
	Lifetime Tons	1,407	8,283	9690	64,000	15%	128,000	8%
Customer Bill Savings (millions)	Annual Dollars	\$0.03	\$0.15	\$0.18	\$1.20	15%	\$2.40	7%
	Lifetime Dollars	\$0.39	\$2.28	\$2.67	\$18.0	15%	\$36.0	7%
Private Investment (millions)	Dollars	-	-	-	\$5.43	-	\$10.9	-
Participants	Participants	11	54	65	330	20%	660	10%

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

<sup>23</sup> 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.

<sup>24</sup> 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 9. Multifamily Market Rate Resource Acquisition Transition Initiative Results<sup>25, 26</sup>**

**Approval Date:** February 29, 2016

**Launch Date:** April 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	-	-	1,000	-	3,000	-
	MWh Lifetime	-	-	-	20,000	-	39,000	-
	MMBtu Annual	-	-	-	142,000	-	309,000	-
	MMBtu Lifetime	-	-	-	2,130,000	-	4,628,000	-
	MW	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	8,000	-	18,000	-
	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	-	-	-	38,000	-	10,600	-

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

<sup>25</sup> 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.

<sup>26</sup> 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 10. Single Family Market Rate Resource Acquisition Transition Initiative Results**<sup>27, 28, 29</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	267	-	267	1,000	27%	3,000	9%
	MWh Lifetime	5,344	-	5,344	20,000	27%	44,000	12%
	MMBtu Annual	15,869	-	15,869	98,000	16%	215,000	7%
	MMBtu Lifetime	317,371	-	317,371	2,448,000	13%	5,386,000	6%
	MW	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO <sub>2</sub> e Emission Reduction (metric tons)	Annual Tons	1,086	-	1,086	7,000	16%	15,000	7%
	Lifetime Tons	21,712	-	21,712	159,000	14%	349,000	6%
Customer Bill Savings (millions)	Annual Dollars	\$0.28	-	\$0.28	\$1.72	16%	\$3.77	7%
	Lifetime Dollars	\$5.56	-	\$5.56	\$40.8	14%	\$89.7	6%
Private Investment (millions)	Dollars	\$4.17	-	\$4.17	\$34.0	12%	\$79.4	5%
Participants	Participants	-	-	558	4,080	14%	8,976	6%

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

<sup>27</sup> 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.

<sup>28</sup> Lifetime targets were developed using different measure lives for gas and electric savings. To be conservative, NYSERDA used a 20-year measure life for calculating lifetime savings in this report and will adjust in the future filings.

<sup>29</sup> 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. Low- to Moderate-Income Single-Family Low -Income Resource Acquisition Transition Initiative Results**<sup>30, 31, 32</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	381	-	381	5,000	8%	14,000	3%
	MWh Lifetime	5,710	-	5,710	70,000	8%	217,000	3%
	MMBtu Annual	9,361	-	9,361	109,000	9%	336,000	3%
	MMBtu Lifetime	140,419	-	140,419	2,713,000	5%	8,401,000	2%
	MW	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	729	-	729	9,000	8%	27,000	3%
	Lifetime Tons	10,931	-	10,931	190,000	6%	587,000	2%
Customer Bill Savings (millions)	Annual Dollars	\$0.19	-	\$0.19	\$2.05	9%	\$6.34	3%
	Lifetime Dollars	\$2.80	-	\$2.80	\$43.8	6%	\$135.63	2%
Private Investment (millions)	Dollars	-	-	-	*	-	*	-
Participants	Participants	719	-	719	8,348	9%	25,848	3%

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

<sup>30</sup> 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.

<sup>31</sup> Lifetime targets were developed using different measure lives for gas and electric savings. To be conservative, NYSERDA used a 15-year measure life for calculating lifetime savings in this report and will adjust in the future filings.

<sup>32</sup> 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 12. Low- to Moderate-Income Single-Family Moderate Income Resource Acquisition Transition Initiative Results**<sup>33, 34, 35</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	267	-	267	1,000	27%	2,000	13%
	MWh Lifetime	4,000	-	4,000	9,000	44%	24,000	17%
	MMBtu Annual	12,668	-	12,668	43,000	29%	120,000	11%
	MMBtu Lifetime	190,018	-	190,018	1,079,000	18%	2,999,000	6%
	MW	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO <sub>2</sub> e Emission Reduction (metric tons)	Annual Tons	868	-	868	3,000	29%	8,000	11%
	Lifetime Tons	13,026	-	13,026	65,000	20%	182,000	7%
Customer Bill Savings (millions)	Annual Dollars	\$0.20	-	\$0.20	\$0.613	33%	\$1.70	12%
	Lifetime Dollars	\$3.06	-	\$3.06	\$14.4	21%	\$40.0	8%
Private Investment (millions)	Dollars	\$2.19	-	\$2.19	\$7.22	30%	\$18.7	12%
Participants	Participants	416	-	416	1,798	23%	4,998	8%

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

<sup>33</sup> 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.

<sup>34</sup> Due to rounding of annual target values, the relationship between MWh Annual and MWh Lifetime targets implies a 9-year measure life was used to calculate lifetime savings when in fact the measure life applied was 15-years. In addition, the lifetime targets for completed projects were developed using different measure lives for gas and electric savings. To be conservative, NYSERDA used a 15-year measure life for calculating lifetime savings in this report and will adjust in the future filings.

<sup>35</sup> 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 13. Low- to Moderate-Income Multifamily Resource Acquisition Transition Initiative Results**<sup>36, 37</sup>

**Approval Date:** February 29, 2016

**Launch Date:** April 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	-	-	21,000	-	62,000	-
	MWh Lifetime	-	-	-	309,000	-	923,000	-
	MMBtu Annual	-	-	-	461,000	-	1,380,000	-
	MMBtu Lifetime	-	-	-	6,915,000	-	20,697,000	-
	MW	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	35,000	-	105,000	-
	Lifetime Tons	-	-	-	524,000	-	1,568,000	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$10.0	-	\$29.9	-
	Lifetime Dollars	-	-	-	\$150	-	\$449	-
Private Investment (millions)	Dollars	-	-	-	\$76.0	-	\$301	-
Participants	Participants	-	-	-	73,000	-	220,000	-

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

<sup>36</sup> 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.

<sup>37</sup> 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 14. Commercial New Construction Resource Acquisition Transition Initiative Results**<sup>38, 39, 40</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	13,643	13,643	20,000	68%	38,000	36%
	MWh Lifetime	-	272,859	272,859	409,000	67%	758,000	36%
	MMBtu Annual	-	26,584	26,584	27,000	98%	50,000	53%
	MMBtu Lifetime	-	531,674	531,674	541,000	98%	1,004,000	53%
	MW	-	4	4	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO <sub>2</sub> e Emission Reduction (metric tons)	Annual Tons	-	8,591	8,591	12,000	72%	23,000	37%
	Lifetime Tons	-	171,819	171,819	244,000	70%	452,000	38%
Customer Bill Savings (millions)	Annual Dollars	-	\$1.96	\$1.96	\$3.49	56%	\$6.46	30%
	Lifetime Dollars	-	\$39.2	\$39.2	\$69.7	56%	\$129	30%
Private Investment (millions)	Dollars	-	-	-	\$28.6	-	\$106	-
Participants	Participants	-	19	19	54	35%	100	19%

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

<sup>38</sup> The pipeline savings projection for Commercial New Construction is based on current approved applications and does not include any discount for expected future attrition. The Resource Acquisition Transition Chapter annual savings estimates assumed an attrition rate of approximately 50%, based on historic program data. Actual attrition will be reflected in the reported values as it occurs.

<sup>39</sup> 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.

<sup>40</sup> 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. Low Rise New Construction Market Rate Resource Acquisition Transition Initiative Results**<sup>41, 42, 43</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	-	-	2,000	-	5,000	-
	MWh Lifetime	-	-	-	47,000	-	91,000	-
	MMBtu Annual	-	-	-	27,000	-	47,000	-
	MMBtu Lifetime	-	-	-	547,000	-	948,000	-
	MW	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	3,000	-	5,000	-
	Lifetime Tons	-	-	-	54,000	-	99,000	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$0.900	-	\$1.60	-
	Lifetime Dollars	-	-	-	\$18.0	-	\$32.0	-
Private Investment (millions)	Dollars	-	-	-	\$2.78	-	\$4.99	-
Participants	Participants	-	-	-	993	-	1,790	-

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

<sup>41</sup> 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.

<sup>42</sup> 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.

<sup>43</sup> Program achievements will be counted only when projects are completed.

**Table 16. Low Rise New Construction Low- to Moderate-Income Resource Acquisition Transition Initiative Results**<sup>44, 45, 46</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	-	-	4,000	-	8,000	-
	MWh Lifetime	-	-	-	75,000	-	152,000	-
	MMBtu Annual	-	-	-	35,000	-	66,000	-
	MMBtu Lifetime	-	-	-	707,000	-	1,325,000	-
	MW	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	4,000	-	8,000	-
	Lifetime Tons	-	-	-	77,000	-	151,000	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$1.00	-	\$2.00	-
	Lifetime Dollars	-	-	-	\$20.0	-	\$40.0	-
Private Investment (millions)	Dollars	-	-	-	\$6.46	-	\$13.0	-
Participants	Participants	-	-	-	1,814	-	3,622	-

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

<sup>44</sup> 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.

<sup>45</sup> 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.

<sup>46</sup> Program achievements will be counted only when projects are completed.

**Table 17. Multifamily New Construction Market Rate Resource Acquisition Transition Initiative Results<sup>47, 48</sup>**

**Approval Date:** February 29, 2016;

**Anticipated Launch Date:** August 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	-	-	4,000	-	7,000	-
	MWh Lifetime	-	-	-	76,000	-	132,000	-
	MMBtu Annual	-	-	-	28,000	-	48,000	-
	MMBtu Lifetime	-	-	-	562,000	-	957,000	-
	MW	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	3,000	-	6,000	-
	Lifetime Tons	-	-	-	70,000	-	1,400,000	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$0.800	-	\$6.46	-
	Lifetime Dollars	-	-	-	\$16.0	-	\$28.0	-
Private Investment (millions)	Dollars	-	-	-	\$10.2	-	\$17.5	-
Participants	Participants	-	-	-	2,000	-	3,500	-

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

<sup>47</sup> 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.

<sup>48</sup> 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 Low- to Moderate-Income Resource Acquisition Transition Initiative Results<sup>49, 50</sup>**

**Approval Date:** February 29, 2016

**Anticipated Launch Date:** August 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	-	-	10,000	-	19,000	-
	MWh Lifetime	-	-	-	208,000	-	378,000	-
	MMBtu Annual	-	-	-	77,000	-	137,000	-
	MMBtu Lifetime	-	-	-	1,545,000	-	2,731,000	-
	MW	-	-	-	*	-	*	-
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	10,000	-	17,000	-
	Lifetime Tons	-	-	-	191,000	-	344,000	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$2.20	-	\$4.00	-
	Lifetime Dollars	-	-	-	\$44.0	-	\$80.0	-
Private Investment (millions)	Dollars	-	-	-	\$28.1	-	\$50.1	-
Participants	Participants	-	-	-	5,500	-	10,000	-

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

<sup>49</sup> 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.

<sup>50</sup> 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. Anaerobic Digesters Resource Acquisition Transition Initiative Results<sup>51, 52</sup>**

**Approval Date:** February 29, 2016

**Launch Date:** July 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	-	-	10,000	-	30,000	-
	MWh Lifetime	-	-	-	100,000	-	300,000	-
	MW	-	-	-	*	-	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	5,000	-	16,000	-
	Lifetime Tons	-	-	-	53,000	-	158,000	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$0.300	-	\$0.900	-
	Lifetime Dollars	-	-	-	\$3.00	-	\$9.00	-
Private Investment (millions)	Dollars	-	-	-	\$3.00	-	\$9.00	-
Participants	Participants	-	-	-	2	-	6	-

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

<sup>51</sup> 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.

<sup>52</sup> 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. Fuel Cells Resource Acquisition Transition Initiative Results**<sup>53, 54</sup>

**Approval Date:** February 29, 2016

**Anticipated Launch Date:** See footnote<sup>55</sup>

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	-	-	5,000	-	15,000	-
	MWh Lifetime	-	-	-	50,000	-	150,000	-
	MW	-	-	-	0.6	-	1.8	-
CO2e Emission Reduction (metric tons)	Annual Tons	-	-	-	3,000	-	8,000	-
	Lifetime Tons	-	-	-	26,000	-	78,000	-
Customer Bill Savings (millions)	Annual Dollars	-	-	-	\$0.500	-	\$1.50	-
	Lifetime Dollars	-	-	-	\$5.00	-	\$15.0	-
Private Investment (millions)	Dollars	-	-	-	\$4.00	-	\$12.0	-
Participants	Participants	-	-	-	2	-	6	-

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

<sup>53</sup> 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.

<sup>54</sup> 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.

<sup>55</sup> As a result of on-going discussions with stakeholders, the Fuel Cell Incentive Program (PON 2157), which expired on 2/29/2016, will not be re-issued. Instead, NYSERDA will pivot to market development activities for Fuel Cells, such as soft-cost reductions through improved interconnection and permitting procedures (a revised Investment Plan will be prepared and filed).

**Table 21. Small Wind Resource Acquisition Transition Initiative Results**<sup>56 57</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	233	233	2,000	12%	7,000	3%
	MWh Lifetime	-	2,330	2,330	46,000	5%	138,000	2%
	MW	-	0.09	0.09	1	9%	3	3%
CO2e Emission Reduction (metric tons)	Annual Tons	-	123	123	1,000	12%	4,000	3%
	Lifetime Tons	-	1,226	1,226	24,000	5%	73,000	2%
Customer Bill Savings (millions)	Annual Dollars	-	\$0.04	\$0.04	\$0.40	10%	\$1.2	3%
	Lifetime Dollars	-	\$0.40	\$0.40	\$8.00	5%	\$24	2%
Private Investment (millions)	Dollars	-	\$0.28	\$0.28	\$4.00	7%	\$12	2%
Participants	Participants	-	1	1	35	3%	105	0.95%

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

<sup>56</sup> 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.

<sup>57</sup> 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. Solar Thermal Resource Acquisition Transition Initiative Results**<sup>58, 59, 60, 61</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	53	427	480	7,000	6%	7,000	7%
	MWh Lifetime	793	6,400	7193	104,000	6%	104,000	7%
	MW	-	-	-	*	*	*	-
CO2e Emission Reduction (metric tons)	Annual Tons	28	224	252	4,000	6%	4,000	6%
	Lifetime Tons	417	3,367	3,784	55,000	6%	55,000	7%
Customer Bill Savings (millions)	Annual Dollars	\$0.01	\$0.06	\$0.06	\$0.315	18%	\$0.315	21%
	Lifetime Dollars	\$0.11	\$0.87	\$0.97	\$4.72	18%	\$4.72	21%
Private Investment (millions)	Dollars	\$0.03	\$0.51	\$0.54	\$7.00	7%	\$7.00	8%
Participants	Participants	3	4	27	190	14%	190	14%
Eligible Installers		3	4	7	20	35%	20	35%

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

<sup>58</sup> 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.

<sup>59</sup> 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.

<sup>60</sup> 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 \$1,176,740 and the Lifetime Dollars Cumulative Current Target should be \$17,651,100. 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.

<sup>61</sup> 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.

**Table 23. Combined Heat & Power Resource Acquisition Transition Initiative Results**<sup>62, 63, 64, 65</sup>

**Approval Date:** February 29, 2016

**Launch Date:** March 2016

Resource Acquisition Transition Initiative	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	1,388	1,388	170,000	1%	220,000	1%
	MWh Lifetime	-	20,826	20,826	2,500,000	1%	3,220,000	1%
	MMBtu Annual	-	-	-	(1,000)	-	(1,000)	-
	MMBtu Lifetime	-	-	-	(14,000)	-	(19,000)	-
	MW	-	2.82	2.82	30.0	9%	39.0	7%
Renewable Energy	MWh Annual	-	-	-	*	-	*	-
	MWh Lifetime	-	-	-	*	-	*	-
	MW	-	-	-	*	-	*	-
CO <sub>2</sub> e Emission Reduction (metric tons)	Annual Tons	-	731	731	90,000	1%	114,000	1%
	Lifetime Tons	-	10,958	10,958	1,350,000	1%	1,710,000	1%
Customer Bill Savings (millions)	Annual Dollars	-	\$0.18	\$0.18	\$23.9	1%	\$29.3	1%
	Lifetime Dollars	-	\$2.77	\$2.77	\$359	1%	\$440	1%
Private Investment (millions)	Dollars	-	\$10.27	\$10.27	\$95.0	11%	\$117	9%
Installations	Participants	-	10	10	43	23%	86	12%
MT Marketplace		2	-	2	2	100%	24	8%

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

<sup>62</sup> A total of 1.5 MW are included in these Combined Heat & Power Resource Acquisition Transition Initiative Results for projects that would be eligible under the rules of the Indian Point Energy Center (IPEC) Reliability Contingency Plan. NYSERDA expects to reallocate these benefits if its petition to reopen IPEC funds, filed on May 26, 2016, is approved by the Public Service Commission.

<sup>63</sup> Technical assistance energy savings and dollars metrics included for five CHP studies.

<sup>64</sup> 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.

<sup>65</sup> 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.

### 3 Market Development Initiative Specific Results

Table 24. Market Development Initiative Budgets and Spending

Initiative	Budget Approved as of June 30, 2016 <sup>a</sup>	Expended Funds <sup>b</sup>	Open Encumbrances <sup>c</sup>	Pre-Encumbrances <sup>d</sup>	Committed Funds <sup>e</sup>	% of Approved Budget Committed <sup>f</sup>	Budget Approved Remaining Balance <sup>g</sup>
<b>Market Characterization &amp; Design Chapter</b>	<b>\$11,500,000</b>	-	-	-	-	-	<b>\$11,500,000</b>
<b>Commercial Chapter</b>							
Real Estate Tenant	\$25,500,000	-	-	-	-	-	\$25,500,000
Real Time Energy Management	\$46,500,000	-	-	-	-	-	\$46,500,000
REV Campus Challenge	\$19,650,000	-	-	-	-	-	\$19,650,000
<b>Commercial Chapter Total</b>	<b>\$91,650,000</b>	-	-	-	-	-	<b>\$91,650,000</b>
<b>Industrial Chapter</b>							
Continuous Energy Improvement	\$9,980,739	-	-	-	-	-	\$9,980,739
<b>Industrial Chapter Total</b>	<b>\$9,980,739</b>	-	-	-	-	-	<b>\$9,980,739</b>
<b>Communities Chapter</b>							
Clean Energy Communities	\$14,218,526	-	-	-	-	-	\$14,218,526
<b>Communities Chapter Total</b>	<b>\$14,218,526</b>	-	-	-	-	-	<b>\$14,218,526</b>
<b>Large-Scale Renewables Chapter</b>							
Offshore Wind Master Plan	\$5,000,000	-	-	-	-	-	\$5,000,000
Offshore Wind Pre-Development Activities	\$10,000,000	-	-	-	-	-	\$10,000,000
<b>Large-Scale Renewables Chapter Total</b>	<b>\$15,000,000</b>	-	-	-	-	-	<b>\$15,000,000</b>
<b>REV Technical Assistance Chapter</b>							
REV Connect	\$2,500,000	-	-	\$2,390,144	\$2,390,144	96%	\$109,856
<b>REV Technical Assistance Chapter Total</b>	<b>\$2,500,000</b>	-	-	<b>\$2,390,144</b>	<b>\$2,390,144</b>	<b>96%</b>	<b>\$109,856</b>
<b>NYS Cost Recovery Fee</b>	<b>\$13,169,954</b>	<b>\$159,057</b>	-	-	<b>\$159,057</b>	<b>1%</b>	<b>\$13,010,897</b>
<b>Total Market Development</b>	<b>\$158,019,219</b>	<b>\$159,057</b>	-	<b>\$2,390,144</b>	<b>\$2,549,201</b>	<b>2%</b>	<b>\$155,470,018</b>

Table notes are on next page

- a Funds approved by DPS as of June 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 Pre-Encumbrances.
- f The percentage of the budget that has been committed.
- g The difference between Budget Approved Funds and Committed Funds.

**Table 25. Real Estate Tenant Initiative Results<sup>66</sup>**

**Approval Date:** May 23, 2016

**Launch Date:** July 2016

Market Development Initiative Specific Results	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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.

<sup>66</sup> 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 26. 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.	
	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 27. Real Time Energy Management (RTEM) Initiative Results<sup>67</sup>**

**Approval Date:** May 23, 2016

**Launch Date:** June 2016

Market Development Initiative Specific Results	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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.

<sup>67</sup> 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 28. 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 has been secured and is 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. Currently, the RTEM RFQ has received 36 applications. Currently, 6 vendors have been 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 that the progress should be adjusted from 2016 to 2017.
	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 that the progress should 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-give list of project examples.	
	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-give list of project examples.	
	2016-2020	RTEM Advisor supports gaps in market confidence and identifies market approaches to eliminating gaps.	

**Table 28 continued**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2016-2020	Peer to peer exchanges and RTEM advisor transfer learnings across the projects supported by NYSERDA and enhance success.	
	2016-2020	Technical Guidance Document is published.	
	2016-2020	NYSERDA in coordination with industry partners standardizes methodologies for calculating/analyzing costs and savings data.	
	2016-2020	Training platform is available and used by facility owners/operators.	
	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 29. Reforming the Energy Vision (REV) Campus Challenge Initiative Results<sup>68</sup>**

**Approval Date:** May 23, 2016

**Anticipated Launch Date:** Q1 2017

Market Development Initiative Specific Results	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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.

<sup>68</sup> 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 30. Key Milestones for REV Campus Challenge**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2016-2019	120 out of 250 institutions sign up to be REV Campus Challenge Members.	The REV Campus Challenge has 51 Member institutions as of the close of Q2 2016. Forty-six (46) of those institutions were part of a “First Movers” announcement during Earth Week 2016 to highlight those 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 31. Continuous Energy Improvement Initiative On-Site Energy Manager Results<sup>69</sup>**

**Approval Date:** May 23, 2016

**Anticipated Launch Date:** August 2016

Market Development Initiative Specific Results	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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.

<sup>69</sup> 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 32. Key Milestones for Continuous Energy Improvement for On-Site Energy Manager**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016-2017	List of qualified energy-focused process consultants from which On-site Energy Management expertise can be sought and/or matched with industrial facilities.	The On-site Energy Manager pilots are in development and targeted for release in July 2016.
	2016-2017	C-suite executive buy-in and engagement that provides momentum for energy planning and management activities at industrial sites.	The On-site Energy Manager pilots and are in development and targeted for release in July 2016.
	2016-2017	Industrial end user commitment to energy goal creation and realization is key to successful On-site Energy Manager engagements.	The On-site Energy Manager pilots are in development and targeted for release in July 2016.
	2016-2017	Robust tracking and reporting of energy and non-energy benefits of the On-site Energy manager role.	The On-site Energy Manager pilots are in development and targeted for release in July 2016.
	2017-2018	A credible business case that proves the benefits of on-site energy management in industrial facilities. Large sites will save at least 1,200 MWh and 15,000 MMBtu annually Medium sites will save at least 500 MWh and 5,000 MMBtu annually	
	2017-2018	Business case content for consultant marketing plans which address this need in the industrial market.	
	2018	Long-term energy resource(s) dedicated to energy management, without NYSERDA support (e.g., manufacturer hires energy manager function in-house; continues contracting with On-Site Energy Manager consultant; or contracts with a new consultant).	
	2018	Transition of knowledge and tools from pilot On-site Energy Managers to long-term energy resource.	
	2018	Successful dissemination of training, road maps, case studies, and vetted consultant lists creates both supply for On-site Energy Manager by qualified technical consultants and demand for the role at industrial sites.	

**Table 33. Continuous Energy Improvement Initiative Strategic Energy Management Results<sup>70</sup>**

**Approval Date:** May 23, 2016

**Anticipated Launch Date:** September 2016

Market Development Initiative Specific Results	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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.

<sup>70</sup> 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 34. Key Milestones for Continuous Energy Improvement Strategic Energy Management**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016-2017	<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"> <li>Facilities possess knowledge of Strategic Energy Management (have an energy map, identified goals and metrics, and have developed a project register identifying projects and an action plan for project implementation) and have a system for monitoring, tracking, and making decisions based on their energy use.</li> </ul>	The Strategic Energy Management pilot is in development.
	2017 and beyond	<p>Facility executives value and adopt Strategic Energy Management due to organizational change and systematic energy management that enables them to identify attractive investments for their facility.</p> <ul style="list-style-type: none"> <li>Continuation of energy champion and team beyond the cohort (for participating facilities) or the adoption of an energy champion and/or team (for new facilities).</li> <li>Executive support to implement energy-related projects.</li> </ul>	
	2017 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"> <li>Critical staff can express how the energy measures they have implemented have affected their bottom line.</li> </ul>	
	2018 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"> <li>Tracked inquiries and dissemination of case studies, training, Strategic Energy Management resources, and vetted consultant lists.</li> </ul>	

**Table 35. Clean Energy Communities Initiative Results<sup>71</sup>**

**Approval Date:** May 23, 2016

**Anticipated Launch Date:** August 2016

Market Development Initiative Specific Results	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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.

<sup>71</sup> 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 36. Key Milestones for Clean Energy Communities**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	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.	
	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.	
	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 37. Offshore Wind Master Plan Initiative Results<sup>72</sup>**

**Approval Date:** May 23, 2016

**Anticipated Launch Date:** Q4 2016

Market Development Initiative Specific Results	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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.

<sup>72</sup> 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 38. Key Milestones for Offshore Wind Master Plan**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2016	Publish an Offshore Wind Master Plan Blueprint to facilitate discussion and stakeholder engagement in the summer of 2016.	Blueprint outline completed. Blueprint draft in process.
	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 39. Offshore Wind Pre-Development Activities Initiative Results<sup>73</sup>**

**Approval Date:** May 23, 2016

**Anticipated Launch Date:** Q4 2016

Market Development Initiative Specific Results	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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.

<sup>73</sup> 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 40. Key Milestones for Offshore Wind Pre-Development Activities**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
		Reports resulting from pre-development work validating New York State Offshore Wind resource and proposing potential additional wind energy areas for development.	
		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.

**Table 41. REV Connect Initiative Results<sup>74</sup>**

**Approval Date:** May 23, 2016

**Anticipated Launch Date:** August 2016

Market Development Initiative Specific Results	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	-	-	\$0.00	-	\$0.50	-
Participants	Participants	-	-	-	*	-	*	-

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

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

**Table 42. Key Milestones for REV Connect**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	Q3 2016	Execute contract with partner to operate REV Connect.	REV Connect Contractor has been selected. The contract is under development/negotiation.
	Q3 2016	Create information resources and summarize best practices.	
	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.	

## 4 Innovation & Research Initiative Specific Results

Table 43. Innovation & Research Initiative Budgets and Spending<sup>75</sup>

Initiative	Budget Approved as of June 30, 2016 <sup>a</sup>	Expended Funds <sup>b</sup>	Open Encumbrances <sup>c</sup>	Pre-Encumbrances <sup>d</sup>	Committed Funds <sup>e</sup>	% of Approved Budget Committed <sup>f</sup>	Budget Approved Remaining Balance <sup>g</sup>
<b>Market Characterization &amp; Design Chapter</b>	<b>\$250,000</b>	-	-	-	-	-	<b>\$250,000</b>
<b>Grid Modernization Chapter</b>							
DER Interconnection	\$6,300,000	\$75,000	\$125,000	\$60,000	\$260,000	4%	\$6,040,000
<b>Grid Modernization Chapter Total</b>	<b>\$6,300,000</b>	<b>\$75,000</b>	<b>\$125,000</b>	<b>\$60,000</b>	<b>\$260,000</b>	<b>4%</b>	<b>\$6,040,000</b>
<b>Innovation Capacity and Business Development Chapter</b>							
CleanTech Startup Growth	\$19,000,000	-	-	-	-	-	<b>\$19,000,000</b>
<b>Innovation Capacity and Business Development Chapter</b>	<b>\$19,000,000</b>	-	-	-	-	-	<b>\$19,000,000</b>
<b>NYS Cost Recovery Fee</b>	<b>\$653,857</b>	<b>\$3,246</b>	-	-	<b>\$3,246</b>	<b>0.5%</b>	<b>\$650,611</b>
<b>Innovation Capacity and Bus. Dev. Chapter Total</b>	<b>\$26,203,857</b>	<b>\$78,246</b>	<b>\$125,000</b>	<b>\$60,000</b>	<b>\$263,246</b>	<b>1%</b>	<b>\$25,940,611</b>

<sup>a</sup> Funds approved by DPS as of June 30, 2016.

<sup>b</sup> Invoices processed for payment by NYSERDA.

<sup>c</sup> Remaining funding obligated under a contract, purchase order or incentive award.

<sup>d</sup> Planned funding for contracts awarded and under negotiation

<sup>e</sup> The sum of Expended Funds, Open Encumbrances and Pre-Encumbrances.

<sup>f</sup> The percentage of the budget that has been committed.

<sup>g</sup> The difference between Budget Approved Funds and Committed Funds.

<sup>75</sup> 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 44. Distributed Energy Resource Interconnection Initiative Results<sup>76</sup>**

**Approval Date:** May 23, 2016

**Anticipated Launch Date:** September 2016

Innovation & Research Initiative Specific Results	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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.

<sup>76</sup> 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 Distributed Energy Resource Interconnection**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	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.	Contractor has been selected. The contract is under development/negotiation.
✓	Q3 2016	Contract with one or more research/consulting organizations to provide technical knowledge and support for distributed energy resource (DER) interconnection improvements in New York.	Contract in place with the National Renewable Energy Lab (NREL) and Pterra Consulting to support DER interconnection improvements in NY.
	Q3 2016	Launch a competitive program funding opportunity focused on innovation to reduce DER interconnection burdens in New York State.	
✓	Q3 2016	Implement a model for collaboration between NYSERDA, New York Power Authority (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 Distribution System Implementation Plans (DSIP) consistent with PSC rules.	Routine weekly meetings of the NY State Interconnection Team including NYSERDA, DPS, and NYPA. Additional coordination with NY utilities and grid tech companies through the NY Interconnection Technical Working Group.
	Q2 2017	Grid Modernization Roadmap complete.	The work is in progress, a contractor has been selected, the contract has been executed and contractor has begun work on the Roadmap.
	Q1 2017	Contract with awardees selected under the funding opportunity focused on innovation to reduce DER interconnection burdens in New York State.	

**Table 46. Cleantech Startup Growth Initiative Results<sup>77</sup>**

**Approval Date:** May 23, 2016

**Anticipated Launch Date:** Q4 2016

Innovation & Research Initiative Specific Results	Units	Completed Projects through June 30, 2016	Current Pipeline Through June 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	-	-	-	\$75.0	-	\$225	-
Participants	Participants	-	-	-	32	-	191	-

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

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

**Table 47. Key Milestones for Cleantech Startup Growth Incubators**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2016	First competitive solicitation launched	Solicitation is currently under development. Expected release date is late summer/early fall.
	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 48. Key Milestones for Cleantech Startup Growth Ignition Grants**

<b>Complete</b> ✓	<b>Time Frame</b>	<b>Milestone</b>	<b>Explanation of Progress</b>
	2017	Formal Voice of Customer exercise is completed.	Customer Discovery/Market Validation exercise 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 49. Key Milestones Cleantech Startup Growth Geographic Coverage**

Complete ✓	Time Frame	Milestone	Explanation of Progress
	2016	Competitive solicitation launched.	Solicitation is currently under development. Expected release date is late summer/early fall.
	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 will be held in the future.



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