

Matter Number 16-00681, In the Matter of the Clean Energy Fund  
Investment Plan

# Clean Energy Fund Investment Plan: Budget Accounting and Benefits Chapter

**Submitted by:**

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

Revised August 18, 2016

(Revised December 30, 2016 per Record of Revision)

## Budget Accounting and Benefits

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This Budget Accounting and Benefits chapter is intended to provide a current and comprehensive compilation of budgets and benefits for all Market Development and Innovation & Research portfolio initiatives contained within the Clean Energy Fund (CEF) Investment Plan as of August 18, 2016. These are compared to the minimum projected benefits identified in the CEF Order and presented in Table 1 for the combined four portfolios of the CEF which also includes NY-Sun and NYGB. All dollars and benefits are reflected in the year in which they are anticipated to be committed.

**Table 1. CEF Minimum Projected Benefits 2016 - 2025 (in millions)**

		Cumulative Annual	Lifetime
Energy Efficiency	MWh	10.6	*
	MMBtu	13.4	*
	MW	*	*
Renewable Energy	MWh	*	88
	MW	*	*
CO2e Emissions Reductions (tons)		*	133
Customer Bill Savings		*	\$39,131
Private Investment		*	\$29,356

*\* Denotes metric to be tracked and reported*

Table 2 summarizes the progressive budget schedule by portfolio, admin, and evaluation funding. The budget reflects the adjustment to reduce the Market Development and Innovation & Research program authorization funding by \$9,604,661 as a result of the amount of uncommitted SBC, EEPS, T&MD and RPS funds as of February 29, 2016 being less than originally projected, as reported in NYSERDA's filing dated April 29, 2016. The resulting adjustment was applied proportionately by year and in total between Market Development – Program & CRF, Innovation & Research – Program & CRF, and Administration. Table 3 details the budget schedule by all initiatives contained within this Investment Plan.

**Table 2. Market Development and Innovation & Research Portfolio Budgets<sup>1</sup>**

	Program Authorization	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total	% of Program Authorization
<b>Market Development</b>													
Program Funds	\$2,386,760,624	\$245,774,177	\$159,093,178	\$115,891,190	\$36,751,785	\$24,094,540	\$16,320,894	\$10,561,567	\$6,831,400	\$6,119,603	\$3,433,986	\$624,872,320	26.84%
NYS Cost Recovery Fee		\$6,121,846	\$4,052,780	\$3,012,946	\$937,706	\$615,652	\$404,622	\$271,536	\$171,404	\$149,923	\$90,192	\$15,828,608	
<b>Innovation &amp; Research</b>													
Program Funds	\$629,833,404	\$ 14,900,000	\$ 34,350,000	\$ 32,850,000	\$ 26,950,000	\$ 18,950,000	\$ 18,200,000	\$ 16,700,000	\$ -	\$ -	\$ -	\$ 162,900,000	26.52%
NYS Cost Recovery Fee		\$ 371,135	\$ 875,041	\$ 854,036	\$ 687,618	\$ 484,202	\$ 451,208	\$ 429,354	\$ -	\$ -	\$ -	\$ 4,152,594	
Administration	\$273,601,311	\$23,610,840	\$17,919,348	\$14,061,754	\$5,910,270	\$3,999,469	\$3,112,106	\$2,548,692	\$623,287	\$545,176	\$327,972	\$72,658,915	26.56%
Evaluation	\$130,200,000	\$4,357,500	\$7,701,500	\$9,102,000	\$2,641,000	\$1,849,500	\$412,500	\$1,347,500	\$165,000	\$0	\$247,500	\$27,824,000	21.37%
<b>Total</b>	<b>\$3,420,395,339</b>	<b>\$295,135,498</b>	<b>\$223,991,846</b>	<b>\$175,771,927</b>	<b>\$73,878,380</b>	<b>\$49,993,363</b>	<b>\$38,901,330</b>	<b>\$31,858,650</b>	<b>\$7,791,091</b>	<b>\$6,814,702</b>	<b>\$4,099,650</b>	<b>\$908,236,437</b>	<b>26.55%</b>

<sup>1</sup>The CEF Order authorized CEF funding and noted that these costs would be funded from the funding authorized for the combined program costs and New York State Cost Recovery Fee (CRF) costs. NYSERDA has revised the presentation in this summary to report CRF separate from program costs, but still subject to the original authorization (as modified by NYSERDA’s Uncommitted Funds filing dated April 29, 2016) on a combined basis. This approach improves the transparency of reporting and also recognizes the differences in the timing of commitment/expenditures of program costs vs. CRF costs. The initial budget for CRF assumes the assessment will average 2.2% of funding over the term of the CEF.

**Table 3. Market Development and Innovation & Research Budget by Chapter and Initiative**

<b>Market Development</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Resource Acquisition Transition Chapter</b>											
<i>Commercial</i>	\$27,000,000	\$10,000,000	\$0								\$37,000,000
<i>Industrial</i>	\$34,200,000	\$7,650,000	\$2,250,000								\$44,100,000
<i>Agriculture</i>	\$1,800,000	\$1,800,000	\$0								\$3,600,000
<i>Multifamily Market Rate</i>	\$3,117,517	\$2,078,345	\$0								\$5,195,862
<i>Single Family Market Rate</i>	\$12,924,640	\$5,965,040	\$0								\$18,889,680
<i>LMI Single Family</i>	\$43,884,580	\$31,742,140	\$31,744,680								\$107,371,400
<i>LMI Multifamily</i>	\$15,576,622	\$7,749,768	\$10,536,110								\$33,862,500
<i>Commercial New Construction</i>	\$13,328,280	\$11,355,695	\$0								\$24,683,975
<i>Low Rise New Construction</i>	\$5,643,750	\$5,192,250	\$0								\$10,836,000
<i>Multifamily New Construction</i>	\$5,835,186	\$4,319,952	\$0								\$10,155,138
<i>Anaerobic Digesters</i>	\$4,050,000	\$4,050,000	\$4,050,000								\$12,150,000
<i>Fuel Cells</i>	\$2,000,000	\$2,000,000	\$2,000,000								\$6,000,000
<i>Small Wind</i>	\$2,030,000	\$2,030,000	\$2,030,000								\$6,090,000
<i>Solar Thermal</i>	\$3,000,000	\$0	\$0								\$3,000,000
<i>Combined Heat &amp; Power</i>	\$26,050,000	\$13,050,000	\$9,450,000								\$48,550,000
<b>Resource Acquisition Transition Chapter Total</b>	<b>\$200,440,575</b>	<b>\$108,983,190</b>	<b>\$62,060,790</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$371,484,555</b>
<b>Market Characterization &amp; Design Chapter</b>											
	\$3,250,000	\$4,750,000	\$2,500,000	\$500,000	\$500,000	\$0	\$0	\$0	\$0	\$0	\$11,500,000
<b>Commercial Chapter</b>											
<i>Real Estate Tenant</i>	\$1,062,475	\$2,121,331	\$2,783,806	\$3,613,234	\$4,042,662	\$3,547,139	\$2,851,617	\$2,166,642	\$2,111,095	\$1,200,000	\$25,500,000
<i>Real Time Energy Management</i>	\$3,061,510	\$5,411,433	\$7,643,157	\$8,053,773	\$9,257,099	\$6,835,269	\$3,361,465	\$1,541,273	\$1,335,023	\$0	\$46,500,000
<i>REV Campus Challenge</i>	\$504,493	\$2,504,493	\$2,532,029	\$2,032,029	\$2,032,029	\$2,008,986	\$2,008,986	\$2,008,986	\$2,008,986	\$2,008,986	\$19,650,000
<b>Commercial Chapter Total</b>	<b>\$4,628,478</b>	<b>\$10,037,256</b>	<b>\$12,958,992</b>	<b>\$13,699,035</b>	<b>\$15,331,790</b>	<b>\$12,391,394</b>	<b>\$8,222,067</b>	<b>\$5,716,900</b>	<b>\$5,455,103</b>	<b>\$3,208,986</b>	<b>\$91,650,000</b>
<b>Industrial Chapter</b>											
<i>Continuous Energy Improvement</i>	\$5,522,739	\$3,442,000	\$1,016,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,980,739
<b>Industrial Chapter Total</b>	<b>\$5,522,739</b>	<b>\$3,442,000</b>	<b>\$1,016,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$9,980,739</b>
<b>Communities Chapter</b>											
<i>Clean Energy Communities</i>	\$3,261,386	\$5,373,731	\$5,583,409	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14,218,526
<b>Communities Chapter Total</b>	<b>\$3,261,386</b>	<b>\$5,373,731</b>	<b>\$5,583,409</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$14,218,526</b>
<b>Large-Scale Renewables Chapter</b>											
<i>Offshore Wind Master Plan</i>	\$5,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000,000
<i>Offshore Wind Pre-Development Activities</i>	\$10,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000,000
<b>Large-Scale Renewables Chapter Total</b>	<b>\$15,000,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$15,000,000</b>
<b>REV Technical Assistance Chapter</b>											
<i>REV Connect</i>	\$2,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,500,000
<b>REV Technical Assistance Chapter Total</b>	<b>\$2,500,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,500,000</b>
<b>Energy Storage Chapter</b>											
<i>Reducing Barriers to Distributed Deployment</i>	\$3,250,000	\$7,800,000	\$7,975,000	\$5,425,000	\$0	\$0	\$0	\$0	\$0	\$0	\$24,450,000
<b>Energy Storage Chapter Total</b>	<b>\$3,250,000</b>	<b>\$7,800,000</b>	<b>\$7,975,000</b>	<b>\$5,425,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$24,450,000</b>
<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	\$1,500,000	\$10,000,000	\$15,250,000	\$9,500,000	\$3,250,000	\$0	\$0	\$0	\$0	\$0	\$39,500,000
<b>Clean Transportation Chapter Total</b>	<b>\$1,500,000</b>	<b>\$10,000,000</b>	<b>\$15,250,000</b>	<b>\$9,500,000</b>	<b>\$3,250,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$39,500,000</b>
<b>Agriculture Chapter</b>											
<i>2030 GLASE</i>	\$5,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000,000
<b>Agriculture Chapter Total</b>	<b>\$5,000,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5,000,000</b>

<b>Low- to Moderate-Income Chapter</b>												
<i>RetrofitNY</i>	\$216,000	\$6,197,000	\$6,177,000	\$5,417,750	\$4,817,750	\$3,869,500	\$2,219,500	\$969,500	\$469,500	\$150,000	\$30,503,500	
<i>REVitalize</i>	\$400,000	\$200,000	\$125,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$725,000	
<i>Low-Income Forum on Energy</i>	\$195,000	\$60,000	\$120,000	\$135,000	\$195,000	\$60,000	\$120,000	\$145,000	\$195,000	\$75,000	\$1,300,000	
<i>Healthy Homes Feasibility Study</i>	\$215,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$215,000	
<b>Low- to Moderate-Income Chapter Total</b>	<b>\$1,026,000</b>	<b>\$6,457,000</b>	<b>\$6,422,000</b>	<b>\$5,552,750</b>	<b>\$5,012,750</b>	<b>\$3,929,500</b>	<b>\$2,339,500</b>	<b>\$1,114,500</b>	<b>\$664,500</b>	<b>\$225,000</b>	<b>\$32,743,500</b>	
<b>Workforce Development and Training Chapter</b>												
<i>Industry Partnerships</i>	\$395,000	\$2,250,000	\$2,125,000	\$2,075,000	\$0	\$0	\$0	\$0	\$0	\$0	\$6,845,000	
<b>Workforce Dev. and Training Chapter Total</b>	<b>\$395,000</b>	<b>\$2,250,000</b>	<b>\$2,125,000</b>	<b>\$2,075,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$6,845,000</b>	
<b>NYS Cost Recovery Fee</b>	<b>\$6,121,845.56</b>	<b>\$4,052,780</b>	<b>\$3,012,946</b>	<b>\$937,706</b>	<b>\$615,652</b>	<b>\$404,622</b>	<b>\$271,536</b>	<b>\$171,404</b>	<b>\$149,923</b>	<b>\$90,192</b>	<b>\$15,828,608</b>	
<b>Total Market Development</b>	<b>\$251,896,023</b>	<b>\$163,145,958</b>	<b>\$118,904,137</b>	<b>\$37,689,492</b>	<b>\$24,710,192</b>	<b>\$16,725,516</b>	<b>\$10,833,103</b>	<b>\$7,002,804</b>	<b>\$6,269,526</b>	<b>\$3,524,178</b>	<b>\$640,700,928</b>	
<b>Innovation &amp; Research</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>	
<b>Market Characterization &amp; Design Chapter</b>	\$0	\$250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	
<b>Grid Modernization Chapter</b>												
<i>DER Interconnection</i>	\$3,800,000	\$2,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,300,000	
<i>High Performing Electric Grid</i>	\$5,000,000	\$18,350,000	\$20,350,000	\$16,700,000	\$16,700,000	\$16,700,000	\$16,700,000	\$0	\$0	\$0	\$110,500,000	
<b>Grid Modernization Chapter Total</b>	<b>\$8,800,000</b>	<b>\$20,850,000</b>	<b>\$20,350,000</b>	<b>\$16,700,000</b>	<b>\$16,700,000</b>	<b>\$16,700,000</b>	<b>\$16,700,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$116,800,000</b>	
<b>Innovation Capacity and Business Development Chapter</b>												
<i>CleanTech Startup Growth</i>	\$6,000,000	\$6,500,000	\$3,500,000	\$3,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$19,000,000	
<b>Innovation Capacity and Bus. Dev. Chapter Total</b>	<b>\$6,000,000</b>	<b>\$6,500,000</b>	<b>\$3,500,000</b>	<b>\$3,000,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$19,000,000</b>	
<b>Building Innovation Chapter</b>												
<i>NextGen HVAC</i>	\$0	\$4,000,000	\$6,000,000	\$5,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000,000	
<b>Building Innovation Chapter Total</b>	<b>\$0</b>	<b>\$4,000,000</b>	<b>\$6,000,000</b>	<b>\$5,000,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$15,000,000</b>	
<b>Clean Transportation Chapter</b>												
<i>Electric Vehicles</i>	\$100,000	\$2,750,000	\$3,000,000	\$2,250,000	\$2,250,000	\$1,500,000	\$0	\$0	\$0	\$0	\$11,850,000	
<b>Clean Transportation Chapter Total</b>	<b>\$100,000</b>	<b>\$2,750,000</b>	<b>\$3,000,000</b>	<b>\$2,250,000</b>	<b>\$2,250,000</b>	<b>\$1,500,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$11,850,000</b>	
<b>NYS Cost Recovery Fee</b>	<b>\$371,135</b>	<b>\$875,041</b>	<b>\$854,036</b>	<b>\$687,618</b>	<b>\$484,202</b>	<b>\$451,208</b>	<b>\$429,354</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4,152,594</b>	
<b>Total Innovation &amp; Research</b>	<b>\$15,271,135</b>	<b>\$35,225,041</b>	<b>\$33,704,036</b>	<b>\$27,637,618</b>	<b>\$19,434,202</b>	<b>\$18,651,208</b>	<b>\$17,129,354</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$167,052,594</b>	
<b>Administration</b>	<b>\$23,610,840</b>	<b>\$17,919,348</b>	<b>\$14,061,754</b>	<b>\$5,910,270</b>	<b>\$3,999,469</b>	<b>\$3,112,106</b>	<b>\$2,548,692</b>	<b>\$623,287</b>	<b>\$545,176</b>	<b>\$327,972</b>	<b>\$72,658,915</b>	
<b>Evaluation</b>	<b>\$4,357,500</b>	<b>\$7,701,500</b>	<b>\$9,102,000</b>	<b>\$2,641,000</b>	<b>\$1,849,500</b>	<b>\$412,500</b>	<b>\$1,347,500</b>	<b>\$165,000</b>	<b>\$0</b>	<b>\$247,500</b>	<b>\$27,824,000</b>	
<b>Total</b>	<b>\$295,135,498</b>	<b>\$223,991,846</b>	<b>\$175,771,927</b>	<b>\$73,878,380</b>	<b>\$49,993,363</b>	<b>\$38,901,330</b>	<b>\$31,858,650</b>	<b>\$7,791,091</b>	<b>\$6,814,702</b>	<b>\$4,099,650</b>	<b>\$908,236,437</b>	

Similarly, Tables 4 through 12 present the associated benefits of these investments. Benefits are rounded to three significant figures therefore totals may not sum. Table 4 includes estimated indirect savings from market effects expected to accrue over the longer term as a result of NYSERDA's investment and follow on market activity. Indirect impact across NYSERDA initiatives may not be additive due to multiple initiatives operating within market sectors. Therefore, indirect savings shown in Table 4 reflect a 50% discount, as a basis for conservative estimation at this time. The indirect savings will be quantified and reported based on periodic Market Evaluation studies. Customer Bill Savings are calculated as direct energy bill savings realized by customers participating in NYSERDA's programs. For Tables 7 through 10, emissions reductions, energy metrics, and bill savings are measured on a 'lifetime' basis to account for the repeating benefits that are realized year-after-year from the implementation of clean energy activity. The carbon benefits are estimated using standard factors to convert electricity, natural gas, and petroleum savings into carbon (1,160 lbs/MWh, 117 lbs/MMBtu, 162 lbs/MMBtu respectively). Estimated bill savings are based on avoided retail rates and include electric, natural gas and petroleum bill savings.

**Table 4. Market Development and Innovation & Research Portfolio Energy Efficiency Cumulative First Year Annual Benefits (MWh and MMBtu)**

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total (Direct)	% of 10 yr Min. Goals (Direct)	Cumulative Annual 2025 Indirect Savings	% of 10 yr Min. Goals (Direct + Indirect)
<b>Market Development</b>														
MWh	624,500	346,000	274,600	148,000	100,300	73,640	59,020	61,420	77,050	79,520	1,844,000	17%	1,576,000	32%
MMBtu	4,554,000	3,267,000	2,474,000	831,600	256,100	117,000	384,700	736,400	1,076,000	1,338,000	15,030,000	112%	4,564,000	146%
<b>Innovation and Research</b>														
MWh	-	-	-	-	-	-	-	-	-	-	-	0%	-	0%
MMBtu	-	-	-	-	-	-	-	-	-	-	-	0%	-	0%
Total MWh	624,500	346,000	274,600	148,000	100,300	73,640	59,020	61,420	77,050	79,520	1,844,000	17%	1,576,000	32%
Total MMBtu	4,554,000	3,267,000	2,474,000	831,600	256,100	117,000	384,700	736,400	1,076,000	1,338,000	15,030,000	112%	4,564,000	146%

**Table 5. Market Development and Innovation & Research Energy Efficiency Cumulative First Year Annual Benefits by Chapter and Initiative (MWh)**

<b>Market Development</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Resource Acquisition Transition Chapter</b>											
<i>Commercial</i>	76,800	44,000	-								120,800
<i>Industrial</i>	201,000	64,500	27,200								292,700
<i>Agriculture</i>	6,050	6,050	-								12,100
<i>Multifamily Market Rate</i>	1,300	1,300	-								2,600
<i>Single Family Market Rate</i>	1,330	1,590	-								2,920
<i>LMI Single Family</i>	5,250	5,410	5,410								16,070
<i>LMI Multifamily</i>	20,600	16,000	24,900								61,500
<i>Commercial New Construction</i>	20,500	17,400	-								37,900
<i>Low Rise New Construction</i>	6,080	6,040	-								12,120
<i>Multifamily New Construction</i>	14,200	11,300	-								25,500
<i>Anaerobic Digesters</i>	-	-	-								-
<i>Fuel Cells</i>	-	-	-								-
<i>Small Wind</i>	-	-	-								-
<i>Solar Thermal</i>	-	-	-								-
<i>Combined Heat &amp; Power</i>	175,000	52,000	60,000								287,000
<b>Resource Acquisition Transition Chapter Total</b>	<b>528,100</b>	<b>225,600</b>	<b>117,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>871,200</b>
<b>Commercial Chapter</b>											
<i>Real Estate Tenant</i>	5,600	13,100	18,600	22,400	26,100	18,600	11,200	5,600	3,700	-	124,900
<i>Real Time Energy Management</i>	20,500	36,200	51,100	53,900	61,900	45,700	22,500	10,300	8,930	-	311,000
<i>REV Campus Challenge</i>	-	15,400	15,400	11,600	11,600	7,720	7,720	7,720	7,720	7,720	92,630
<b>Commercial Chapter Total</b>	<b>26,100</b>	<b>64,700</b>	<b>85,100</b>	<b>87,900</b>	<b>99,600</b>	<b>72,020</b>	<b>41,420</b>	<b>23,620</b>	<b>20,350</b>	<b>7,720</b>	<b>528,500</b>
<b>Industrial Chapter</b>											
<i>Continuous Energy Improvement</i>	49,500	15,000	12,000	-	-	-	-	-	-	-	76,500
<b>Industrial Chapter Total</b>	<b>49,500</b>	<b>15,000</b>	<b>12,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>76,500</b>
<b>Communities Chapter</b>											
<i>Clean Energy Communities</i>	16,800	27,700	28,800	-	-	-	-	-	-	-	73,300
<b>Communities Chapter Total</b>	<b>16,800</b>	<b>27,700</b>	<b>28,800</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>73,300</b>
<b>Large-Scale Renewables Chapter</b>											
<i>Offshore Wind Master Plan</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Offshore Wind Pre-Development Activities</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Large-Scale Renewables Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>REV Technical Assistance Chapter</b>											
<i>REV Connect</i>											
<b>REV Technical Assistance Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Energy Storage Chapter</b>											
<i>Reducing Barriers to Distributed Deployment</i>	550	3,600	5,200	4,500	-	-	-	-	-	-	13,850
<b>Energy Storage Chapter Total</b>	<b>550</b>	<b>3,600</b>	<b>5,200</b>	<b>4,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>13,850</b>

<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Clean Transportation Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Agriculture Chapter</b>											
<i>2030 GLASE</i>	3,470	-	-	-	-	-	-	-	-	-	3,470
<b>Agriculture Chapter Total</b>	3,470	-	-	-	-	-	-	-	-	-	3,470
<b>Low- to Moderate-Income Chapter</b>											
<i>RetrofitNY</i>	-	230	230	297	743	1,620	17,600	37,800	56,700	71,800	187,100
<i>REVitalize</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Low-Income Forum on Energy</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Healthy Homes Feasibility Study</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Low- to Moderate-Income Chapter Total</b>	-	230	230	297	743	1,620	17,600	37,800	56,700	71,800	187,100
<b>Workforce Development and Training Chapter</b>											
<i>Industry Partnerships</i>	-	9,210	25,800	55,300	-	-	-	-	-	-	90,270
<b>Workforce Dev. and Training Chapter Total</b>	-	9,210	25,800	55,300	-	-	-	-	-	-	90,270
<b>Total Market Development</b>	624,500	346,000	274,600	148,000	100,300	73,640	59,020	61,420	77,050	79,520	1,844,000
<b>Innovation and Research</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Grid Modernization Chapter</b>											
<i>DER Interconnection</i>	-	-	-	-	-	-	-	-	-	-	-
<i>High Performing Electric Grid</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Grid Modernization Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Innovation Capacity and Business Development Chapter</b>											
<i>CleanTech Startup Growth</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Innovation Capacity and Bus. Dev. Chapter Tot</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Building Innovation Chapter</b>											
<i>NextGen HVAC</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Building Innovation Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Clean Transportation Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Total Innovation &amp; Research</b>	-	-	-	-	-	-	-	-	-	-	-

**Table 6. Market Development and Innovation & Research Energy Efficiency Cumulative First Year Annual Benefits by Chapter and Initiative (MMBtu)**

<b>Market Development</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Resource Acquisition Transition Chapter</b>											
<i>Commercial</i>	729,000	384,000	-								1,113,000
<i>Industrial</i>	1,940,000	641,000	276,000								2,857,000
<i>Agriculture</i>	20,500	20,500	-								41,000
<i>Multifamily Market Rate</i>	142,000	167,000	-								309,000
<i>Single Family Market Rate</i>	97,900	118,000	-								215,900
<i>LMI Single Family</i>	152,000	152,000	152,000								456,000
<i>LMI Multifamily</i>	461,000	402,000	517,000								1,380,000
<i>Commercial New Construction</i>	27,100	23,100	-								50,200
<i>Low Rise New Construction</i>	62,700	50,900	-								113,600
<i>Multifamily New Construction</i>	105,000	79,000	-								184,000
<i>Anaerobic Digesters</i>	-	-	-								-
<i>Fuel Cells</i>	-	-	-								-
<i>Small Wind</i>	-	-	-								-
<i>Solar Thermal</i>	-	-	-								-
<i>Combined Heat &amp; Power</i>	(980)	(305)	(335)								(1,620)
<b>Resource Acquisition Transition Chapter Total</b>	<b>3,736,000</b>	<b>2,037,000</b>	<b>944,700</b>	<b>-</b>							<b>6,718,000</b>
<b>Commercial Chapter</b>											
<i>Real Estate Tenant</i>	5,900	13,800	19,700	23,600	27,500	19,700	11,800	5,900	3,900	-	131,800
<i>Real Time Energy Management</i>	9,100	16,100	22,700	23,900	27,500	20,300	9,990	4,580	3,970	-	138,200
<i>REV Campus Challenge</i>	-	95,700	95,700	71,800	71,800	47,900	47,900	47,900	47,900	47,900	574,300
<b>Commercial Chapter Total</b>	<b>15,000</b>	<b>125,600</b>	<b>138,100</b>	<b>119,300</b>	<b>126,800</b>	<b>87,900</b>	<b>69,690</b>	<b>58,380</b>	<b>55,770</b>	<b>47,900</b>	<b>844,300</b>
<b>Industrial Chapter</b>											
<i>Continuous Energy Improvement</i>	442,000	175,000	150,000	-	-	-	-	-	-	-	767,000
<b>Industrial Chapter Total</b>	<b>442,000</b>	<b>175,000</b>	<b>150,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>767,000</b>
<b>Communities Chapter</b>											
<i>Clean Energy Communities</i>	302,000	498,000	518,000	-	-	-	-	-	-	-	1,318,000
<b>Communities Chapter Total</b>	<b>302,000</b>	<b>498,000</b>	<b>518,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,318,000</b>
<b>Large-Scale Renewables Chapter</b>											
<i>Offshore Wind Master Plan</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Offshore Wind Pre-Development Activities</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Large-Scale Renewables Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>REV Technical Assistance Chapter</b>											
<i>REV Connect</i>	-	-	-	-	-	-	-	-	-	-	-
<b>REV Technical Assistance Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Energy Storage Chapter</b>											
<i>Reducing Barriers to Distributed Deployment</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Energy Storage Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	58,500	366,000	548,000	341,000	116,000	-	-	-	-	-	1,430,000
<b>Clean Transportation Chapter Total</b>	58,500	366,000	548,000	341,000	116,000	-	-	-	-	-	1,430,000
<b>Agriculture Chapter</b>											
<i>2030 GLASE</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Agriculture Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Low- to Moderate-Income Chapter</b>											
<i>RetrofitNY</i>	-	4,120	4,120	5,330	13,300	29,100	315,000	678,000	1,020,000	1,290,000	3,353,000
<i>REVitalize</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Low-Income Forum on Energy</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Healthy Homes Feasibility Study</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Low- to Moderate-Income Chapter Total</b>	-	4,120	4,120	5,330	13,300	29,100	315,000	678,000	1,020,000	1,290,000	3,353,000
<b>Workforce Development and Training Chapter</b>											
<i>Industry Partnerships</i>	-	61,000	171,000	366,000	-	-	-	-	-	-	597,700
<b>Workforce Dev. and Training Chapter Total</b>	-	61,000	171,000	366,000	-	-	-	-	-	-	597,700
<b>Total Market Development</b>	4,554,000	3,267,000	2,474,000	831,600	256,100	117,000	384,700	736,400	1,076,000	1,338,000	15,030,000
<b>Innovation and Research</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Grid Modernization Chapter</b>											
<i>DER Interconnection</i>	-	-	-	-	-	-	-	-	-	-	-
<i>High Performing Electric Grid</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Grid Modernization Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Innovation Capacity and Business Development Chapter</b>											
<i>CleanTech Startup Growth</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Innovation Capacity and Bus. Dev. Chapter Tot</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Building Innovation Chapter</b>											
<i>NextGen HVAC</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Building Innovation Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Clean Transportation Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Total Innovation &amp; Research</b>	-	-	-	-	-	-	-	-	-	-	-

**Table 7. Market Development and Innovation & Research Portfolio Lifetime Benefits**

<b>Clean Energy Fund: Market Development and Innovation &amp; Research Portfolio Lifetime Benefits</b>													
	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>	<b>% of 10 yr Min. Goals</b>	
<b>Market Development</b>													
Renewable Energy (MWh)	676,000	873,200	886,700	16,500	16,500	11,000	11,000	11,000	11,000	11,000	2,524,000	3%	
CO2e Reductions (metric tons)	9,290,000	5,866,000	4,129,000	1,102,000	636,100	443,300	800,900	1,346,000	1,921,000	2,335,000	27,870,000	21%	
Customer Bill Savings (\$ million)	\$ 1,828.0	\$ 1,146.0	\$ 784.7	\$ 195.0	\$ 129.6	\$ 99.3	\$ 161.2	\$ 263.8	\$ 373.2	\$ 450.4	\$ 5,431.0	14%	
Private Investment (\$ million)	\$ 738.4	\$ 673.3	\$ 744.5	\$ 314.2	\$ 149.7	\$ 67.4	\$ 119.5	\$ 233.6	\$ 465.7	\$ 670.00	\$ 4,176.0	14%	
<b>Innovation and Research</b>													
Renewable Energy (MWh)	-	-	-	-	-	-	-	-	-	-	-	0%	
CO2e Reductions (metric tons)	-	-	-	-	-	-	-	-	-	-	-	0%	
Customer Bill Savings (\$ million)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	
Private Investment (\$ million)	\$ 102.50	\$ 133.50	\$ 83.60	\$ 47.90	\$ 21.10	\$ 18.60	\$ 14.60	\$ -	\$ -	\$ -	\$ 421.80	1%	
<b>Total Renewable Energy (MWh)</b>	<b>676,000</b>	<b>873,200</b>	<b>886,700</b>	<b>16,500</b>	<b>16,500</b>	<b>11,000</b>	<b>11,000</b>	<b>11,000</b>	<b>11,000</b>	<b>11,000</b>	<b>2,524,000</b>	<b>3%</b>	
<b>Total CO2e Reductions (metric tons)</b>	<b>9,290,000</b>	<b>5,866,000</b>	<b>4,129,000</b>	<b>1,102,000</b>	<b>636,100</b>	<b>443,300</b>	<b>800,900</b>	<b>1,346,000</b>	<b>1,921,000</b>	<b>2,335,000</b>	<b>27,870,000</b>	<b>21%</b>	
<b>Total Customer Bill Savings (\$ million)</b>	<b>\$ 1,828.00</b>	<b>\$ 1,146.00</b>	<b>\$ 784.70</b>	<b>\$ 195.00</b>	<b>\$ 129.60</b>	<b>\$ 99.33</b>	<b>\$ 161.20</b>	<b>\$ 263.80</b>	<b>\$ 373.20</b>	<b>\$ 450.40</b>	<b>\$ 5,431.00</b>	<b>14%</b>	
<b>Total Private Investment (\$ million)</b>	<b>\$ 840.90</b>	<b>\$ 806.80</b>	<b>\$ 828.10</b>	<b>\$ 362.10</b>	<b>\$ 170.80</b>	<b>\$ 86.02</b>	<b>\$ 134.10</b>	<b>\$ 233.60</b>	<b>\$ 465.70</b>	<b>\$ 670.00</b>	<b>\$ 4,597.80</b>	<b>16%</b>	

**Table 8. Market Development and Innovation & Research Renewable Energy Lifetime Benefits by Chapter/Initiative (MWh)**

<b>Market Development</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Resource Acquisition Transition Chapter</b>											
<i>Commercial</i>	-	-	-								-
<i>Industrial</i>	-	-	-								-
<i>Agriculture</i>	-	-	-								-
<i>Multifamily Market Rate</i>	-	-	-								-
<i>Single Family Market Rate</i>	-	-	-								-
<i>LMI Single Family</i>	-	-	-								-
<i>LMI Multifamily</i>	-	-	-								-
<i>Commercial New Construction</i>	-	-	-								-
<i>Low Rise New Construction</i>	-	-	-								-
<i>Multifamily New Construction</i>	-	-	-								-
<i>Anaerobic Digesters</i>	100,000	100,000	100,000								300,000
<i>Fuel Cells</i>	50,000	50,000	50,000								150,000
<i>Small Wind</i>	46,000	46,000	46,000								138,000
<i>Solar Thermal</i>	104,000	-	-								104,000
<i>Combined Heat &amp; Power</i>	-	-	-								-
<b>Resource Acquisition Transition Chapter Total</b>	<b>300,000</b>	<b>196,000</b>	<b>196,000</b>	<b>-</b>							<b>692,000</b>
<b>Commercial Chapter</b>											
<i>Real Estate Tenant</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Real Time Energy Management</i>	-	-	-	-	-	-	-	-	-	-	-
<i>REV Campus Challenge</i>	-	22,000	22,000	16,500	16,500	11,000	11,000	11,000	11,000	11,000	132,100
<b>Commercial Chapter Total</b>	<b>-</b>	<b>22,000</b>	<b>22,000</b>	<b>16,500</b>	<b>16,500</b>	<b>11,000</b>	<b>11,000</b>	<b>11,000</b>	<b>11,000</b>	<b>11,000</b>	<b>132,100</b>
<b>Industrial Chapter</b>											
<i>Continuous Energy Improvement</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Industrial Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Communities Chapter</b>											
<i>Clean Energy Communities</i>	376,000	620,000	644,000	-	-	-	-	-	-	-	1,640,000
<b>Communities Chapter Total</b>	<b>376,000</b>	<b>620,000</b>	<b>644,000</b>	<b>-</b>	<b>1,640,000</b>						
<b>Large-Scale Renewables Chapter</b>											
<i>Offshore Wind Master Plan</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Offshore Wind Pre-Development Activities</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Large-Scale Renewables Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>REV Technical Assistance Chapter</b>											
<i>REV Connect</i>	-	-	-	-	-	-	-	-	-	-	-
<b>REV Technical Assistance Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Energy Storage Chapter</b>											
<i>Reducing Barriers to Distributed Deployment</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Energy Storage Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Clean Transportation Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Agriculture Chapter</b>											
<i>2030 GLASE</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Agriculture Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Low- to Moderate-Income Chapter</b>											
<i>RetrofitNY</i>	-	-	-	-	-	-	-	-	-	-	-
<i>REVitalize</i>	-	35,200	24,700	-	-	-	-	-	-	-	59,880
<i>Low-Income Forum on Energy</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Healthy Homes Feasibility Study</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Low- to Moderate-Income Chapter Total</b>	-	35,200	24,700	-	-	-	-	-	-	-	59,880
<b>Workforce Development and Training Chapter</b>											
<i>Industry Partnerships</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Workforce Dev. and Training Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Total Market Development</b>	676,000	873,200	886,700	16,500	16,500	11,000	11,000	11,000	11,000	11,000	2,524,000
<b>Innovation and Research</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Grid Modernization Chapter</b>											
<i>DER Interconnection</i>	-	-	-	-	-	-	-	-	-	-	-
<i>High Performing Electric Grid</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Grid Modernization Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Innovation Capacity and Business Development Chapter</b>											
<i>CleanTech Startup Growth</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Innovation Capacity and Bus. Dev. Chapter Tot</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Building Innovation Chapter</b>											
<i>NextGen HVAC</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Building Innovation Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Clean Transportation Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Total Innovation &amp; Research</b>	-	-	-	-	-	-	-	-	-	-	-

**Table 9. Market Development and Innovation & Research Lifetime Benefits by Chapter/Initiative (tons CO2e Reductions)**

<b>Market Development</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Resource Acquisition Transition Chapter</b>											
<i>Commercial</i>	1,300,000	714,000	-								2,014,000
<i>Industrial</i>	3,130,000	1,020,000	434,000								4,584,000
<i>Agriculture</i>	64,100	64,100	-								128,200
<i>Multifamily Market Rate</i>	125,000	144,000	-								269,000
<i>Single Family Market Rate</i>	159,000	191,000	-								350,000
<i>LMI Single Family</i>	255,000	257,000	257,000								769,000
<i>LMI Multifamily</i>	524,000	441,000	603,000								1,568,000
<i>Commercial New Construction</i>	244,000	208,000	-								452,000
<i>Low Rise New Construction</i>	131,000	118,000	-								249,000
<i>Multifamily New Construction</i>	261,000	203,000	-								464,000
<i>Anaerobic Digesters</i>	52,500	52,500	52,500								157,500
<i>Fuel Cells</i>	26,000	26,000	26,000								78,000
<i>Small Wind</i>	24,300	24,300	24,300								72,900
<i>Solar Thermal</i>	54,600	-	-								54,600
<i>Combined Heat &amp; Power</i>	1,400,000	405,000	435,000								2,240,000
<b>Resource Acquisition Transition Chapter Total</b>	<b>7,751,000</b>	<b>3,868,000</b>	<b>1,832,000</b>	<b>-</b>							<b>13,450,000</b>
<b>Commercial Chapter</b>											
<i>Real Estate Tenant</i>	26,000	61,000	87,000	104,000	122,000	87,000	52,000	26,000	17,000	-	582,000
<i>Real Time Energy Management</i>	90,000	159,000	225,000	237,000	272,000	201,000	98,900	45,300	39,300	-	1,368,000
<i>REV Campus Challenge</i>	-	210,000	210,000	157,000	157,000	105,000	105,000	105,000	105,000	105,000	1,257,000
<b>Commercial Chapter Total</b>	<b>116,000</b>	<b>430,000</b>	<b>522,000</b>	<b>498,000</b>	<b>551,000</b>	<b>393,000</b>	<b>255,900</b>	<b>176,300</b>	<b>161,300</b>	<b>105,000</b>	<b>3,207,000</b>
<b>Industrial Chapter</b>											
<i>Continuous Energy Improvement</i>	765,000	267,000	222,000	-	-	-	-	-	-	-	1,254,000
<b>Industrial Chapter Total</b>	<b>765,000</b>	<b>267,000</b>	<b>222,000</b>	<b>-</b>	<b>1,254,000</b>						
<b>Communities Chapter</b>											
<i>Clean Energy Communities</i>	605,000	996,000	1,030,000	-	-	-	-	-	-	-	2,631,000
<b>Communities Chapter Total</b>	<b>605,000</b>	<b>996,000</b>	<b>1,030,000</b>	<b>-</b>	<b>2,631,000</b>						
<b>Large-Scale Renewables Chapter</b>											
<i>Offshore Wind Master Plan</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Offshore Wind Pre-Development Activities</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Large-Scale Renewables Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>REV Technical Assistance Chapter</b>											
<i>REV Connect</i>	-	-	-	-	-	-	-	-	-	-	-
<b>REV Technical Assistance Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Energy Storage Chapter</b>											
<i>Reducing Barriers to Distributed Deployment</i>	2,890	18,900	27,400	23,700	-	-	-	-	-	-	72,860
<b>Energy Storage Chapter Total</b>	<b>2,890</b>	<b>18,900</b>	<b>27,400</b>	<b>23,700</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>72,860</b>

<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	31,400	196,000	294,000	183,000	62,100	-	-	-	-	-	767,300
<b>Clean Transportation Chapter Total</b>	31,400	196,000	294,000	183,000	62,100	-	-	-	-	-	767,300
<b>Agriculture Chapter</b>											
<i>2030 GLASE</i>	18,300	-	-	-	-	-	-	-	-	-	18,300
<b>Agriculture Chapter Total</b>	18,300	-	-	-	-	-	-	-	-	-	18,300
<b>Low- to Moderate-Income Chapter</b>											
<i>RetrofitNY</i>	-	7,120	7,120	9,220	23,000	50,300	545,000	1,170,000	1,760,000	2,230,000	5,800,000
<i>REVitalize</i>	-	18,500	13,000	-	-	-	-	-	-	-	31,500
<i>Low-Income Forum on Energy</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Healthy Homes Feasibility Study</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Low- to Moderate-Income Chapter Total</b>	-	25,620	20,120	9,220	23,000	50,300	545,000	1,170,000	1,760,000	2,230,000	5,832,000
<b>Workforce Development and Training Chapter</b>											
<i>Industry Partnerships</i>	-	64,700	181,000	388,000	-	-	-	-	-	-	633,600
<b>Workforce Dev. and Training Chapter Total</b>	-	64,700	181,000	388,000	-	-	-	-	-	-	633,600
<b>Total Market Development</b>	9,290,000	5,866,000	4,129,000	1,102,000	636,100	443,300	800,900	1,346,000	1,921,000	2,335,000	27,870,000
<b>Innovation and Research</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Grid Modernization Chapter</b>											
<i>DER Interconnection</i>	-	-	-	-	-	-	-	-	-	-	-
<i>High Performing Electric Grid</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Grid Modernization Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Innovation Capacity and Business Development Chapter</b>											
<i>CleanTech Startup Growth</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Innovation Capacity and Bus. Dev. Chapter Tot</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Building Innovation Chapter</b>											
<i>NextGen HVAC</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Building Innovation Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Clean Transportation Chapter Total</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Total Innovation &amp; Research</b>	-	-	-	-	-	-	-	-	-	-	-

**Table 10. Market Development and Innovation & Research Lifetime Benefits by Chapter/Initiative (Customer Bill Savings in \$ million)**

Market Development and Innovation & Research Lifetime Benefits by Chapter/Initiative (Customer Bill Savings in \$ million)											
Market Development	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
<b>Resource Acquisition Transition Chapter</b>											
Commercial	\$ 222.00	\$ 125.00	\$ -								\$ 347.00
Industrial	\$ 476.00	\$ 154.00	\$ 65.60								\$ 695.60
Agriculture	\$ 18.00	\$ 18.00	\$ -								\$ 36.00
Multifamily Market Rate	\$ 34.50	\$ 40.50	\$ -								\$ 75.00
Single Family Market Rate	\$ 40.80	\$ 48.90	\$ -								\$ 89.70
LMI Single Family	\$ 58.20	\$ 58.70	\$ 58.70								\$ 175.60
LMI Multifamily	\$ 150.00	\$ 126.00	\$ 173.00								\$ 449.00
Commercial New Construction	\$ 69.70	\$ 59.40	\$ -								\$ 129.10
Low Rise New Construction	\$ 38.00	\$ 34.00	\$ -								\$ 72.00
Multifamily New Construction	\$ 60.00	\$ 48.00	\$ -								\$ 108.00
Anaerobic Digesters	\$ 3.00	\$ 3.00	\$ 3.00								\$ 9.00
Fuel Cells	\$ 5.00	\$ 5.00	\$ 5.00								\$ 15.00
Small Wind	\$ 8.00	\$ 8.00	\$ 8.00								\$ 24.00
Solar Thermal	\$ 23.50	\$ -	\$ -								\$ 23.50
Combined Heat & Power	\$ 370.00	\$ 96.00	\$ 105.00								\$ 571.00
<b>Resource Acquisition Transition Chapter Total</b>	<b>\$ 1,577.00</b>	<b>\$ 824.50</b>	<b>\$ 418.30</b>	<b>\$ -</b>							<b>\$ 2,820.00</b>
<b>Commercial Chapter</b>											
Real Estate Tenant	\$ 6.21	\$ 14.50	\$ 20.70	\$ 24.80	\$ 29.00	\$ 20.70	\$ 12.40	\$ 6.21	\$ 4.14	\$ -	\$ 138.70
Real Time Energy Management	\$ 22.20	\$ 39.20	\$ 55.40	\$ 58.40	\$ 67.10	\$ 49.50	\$ 24.40	\$ 11.20	\$ 9.68	\$ -	\$ 337.00
REV Campus Challenge	\$ -	\$ 38.70	\$ 38.70	\$ 29.00	\$ 29.00	\$ 19.40	\$ 19.40	\$ 19.40	\$ 19.40	\$ 19.40	\$ 232.30
<b>Commercial Chapter Total</b>	<b>\$ 28.41</b>	<b>\$ 92.40</b>	<b>\$ 114.80</b>	<b>\$ 112.20</b>	<b>\$ 125.10</b>	<b>\$ 89.60</b>	<b>\$ 56.20</b>	<b>\$ 36.81</b>	<b>\$ 33.22</b>	<b>\$ 19.40</b>	<b>\$ 708.00</b>
<b>Industrial Chapter</b>											
Continuous Energy Improvement	\$ 119.00	\$ 41.30	\$ 34.40	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 194.70
<b>Industrial Chapter Total</b>	<b>\$ 119.00</b>	<b>\$ 41.30</b>	<b>\$ 34.40</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 194.70</b>
<b>Communities Chapter</b>											
Clean Energy Communities	\$ 99.60	\$ 164.00	\$ 170.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 433.60
<b>Communities Chapter Total</b>	<b>\$ 99.60</b>	<b>\$ 164.00</b>	<b>\$ 170.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 433.60</b>
<b>Large-Scale Renewables Chapter</b>											
Offshore Wind Master Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Offshore Wind Pre-Development Activities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Large-Scale Renewables Chapter Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>REV Technical Assistance Chapter</b>											
REV Connect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>REV Technical Assistance Chapter Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Energy Storage Chapter</b>											
Reducing Barriers to Distributed Deployment	\$ 0.73	\$ 4.79	\$ 6.92	\$ 5.99	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18.42
<b>Energy Storage Chapter Total</b>	<b>\$ 0.73</b>	<b>\$ 4.79</b>	<b>\$ 6.92</b>	<b>\$ 5.99</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 18.42</b>

<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Clean Transportation Chapter Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Agriculture Chapter</b>											
<i>2030 GLASE</i>	\$ 2.92	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2.92
<b>Agriculture Chapter Total</b>	\$ 2.92	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2.92
<b>Low- to Moderate-Income Chapter</b>											
<i>RetrofitNY</i>	\$ -	\$ 1.38	\$ 1.38	\$ 1.78	\$ 4.46	\$ 9.73	\$ 105.00	\$ 227.00	\$ 340.00	\$ 431.00	\$ 1,122.00
<i>REVitalize</i>	\$ -	\$ 5.56	\$ 3.90	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9.46
<i>Low-Income Forum on Energy</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Healthy Homes Feasibility Study</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Low- to Moderate-Income Chapter Total</b>	\$ -	\$ 6.94	\$ 5.28	\$ 1.78	\$ 4.46	\$ 9.73	\$ 105.00	\$ 227.00	\$ 340.00	\$ 431.00	\$ 1,131.00
<b>Workforce Development and Training Chapter</b>											
<i>Industry Partnerships</i>	\$ -	\$ 12.50	\$ 35.00	\$ 75.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 122.40
<b>Workforce Dev. and Training Chapter Total</b>	\$ -	\$ 12.50	\$ 35.00	\$ 75.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 122.40
<b>Total Market Development</b>	\$ 1,828.00	\$ 1,146.00	\$ 784.70	\$ 195.00	\$ 129.60	\$ 99.33	\$ 161.20	\$ 263.80	\$ 373.20	\$ 450.40	\$ 5,431.00
<b>Innovation and Research</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Grid Modernization Chapter</b>											
<i>DER Interconnection</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>High Performing Electric Grid</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Grid Modernization Chapter Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Innovation Capacity and Business Development Chapter</b>											
<i>CleanTech Startup Growth</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Innovation Capacity and Bus. Dev. Chapter Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Building Innovation Chapter</b>											
<i>NextGen HVAC</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Building Innovation Chapter Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Clean Transportation Chapter Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Innovation &amp; Research</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Table 11. Market Development and Innovation & Research Lifetime Benefits by Chapter/Initiative (Private Investment in \$ million)**

<b>Market Development</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Resource Acquisition Transition Chapter</b>											
<i>Commercial</i>	\$ 88.00	\$ 36.00	\$ -								\$ 124.00
<i>Industrial</i>	\$ 174.00	\$ 36.20	\$ 8.16								\$ 218.40
<i>Agriculture</i>	\$ 5.43	\$ 5.43	\$ -								\$ 10.86
<i>Multifamily Market Rate</i>	\$ 13.00	\$ 14.00	\$ -								\$ 27.00
<i>Single Family Market Rate</i>	\$ 34.00	\$ 45.40	\$ -								\$ 79.40
<i>LMI Single Family</i>	\$ 7.22	\$ 5.71	\$ 5.71								\$ 18.64
<i>LMI Multifamily</i>	\$ 76.00	\$ 79.00	\$ 146.00								\$ 301.00
<i>Commercial New Construction</i>	\$ 28.60	\$ 24.40	\$ 53.00								\$ 106.00
<i>Low Rise New Construction</i>	\$ 9.24	\$ 8.72	\$ -								\$ 17.96
<i>Multifamily New Construction</i>	\$ 38.30	\$ 29.30	\$ -								\$ 67.60
<i>Anaerobic Digesters</i>	\$ 3.00	\$ 3.00	\$ 3.00								\$ 9.00
<i>Fuel Cells</i>	\$ 4.00	\$ 4.00	\$ 4.00								\$ 12.00
<i>Small Wind</i>	\$ 4.00	\$ 4.00	\$ 4.00								\$ 12.00
<i>Solar Thermal</i>	\$ 7.00	\$ -	\$ -								\$ 7.00
<i>Combined Heat &amp; Power</i>	\$ 98.00	\$ 26.00	\$ 28.00								\$ 152.00
<b>Resource Acquisition Transition Chapter Total</b>	\$ 589.80	\$ 321.20	\$ 251.90								\$ 1,163.00
<b>Commercial Chapter</b>											
<i>Real Estate Tenant</i>	\$ 0.54	\$ 1.27	\$ 1.81	\$ 2.18	\$ 2.54	\$ 1.81	\$ 1.09	\$ 0.54	\$ 0.36	\$ -	\$ 12.15
<i>Real Time Energy Management</i>	\$ 7.36	\$ 25.20	\$ 40.00	\$ 49.90	\$ 54.40	\$ 53.40	\$ 35.40	\$ 17.10	\$ 9.36	\$ -	\$ 292.10
<i>REV Campus Challenge</i>	\$ -	\$ 8.99	\$ 9.10	\$ 7.10	\$ 7.10	\$ 5.98	\$ 5.98	\$ 5.98	\$ 5.98	\$ 5.98	\$ 62.21
<b>Commercial Chapter Total</b>	\$ 7.90	\$ 35.46	\$ 50.91	\$ 59.18	\$ 64.04	\$ 61.19	\$ 42.47	\$ 23.62	\$ 15.70	\$ 5.98	\$ 366.50
<b>Industrial Chapter</b>											
<i>Continuous Energy Improvement</i>	\$ 74.80	\$ 20.20	\$ 15.40	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 110.40
<b>Industrial Chapter Total</b>	\$ 74.80	\$ 20.20	\$ 15.40	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 110.40
<b>Communities Chapter</b>											
<i>Clean Energy Communities</i>	\$ 10.60	\$ 17.50	\$ 18.10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 46.20
<b>Communities Chapter Total</b>	\$ 10.60	\$ 17.50	\$ 18.10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 46.20
<b>Large-Scale Renewables Chapter</b>											
<i>Offshore Wind Master Plan</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Offshore Wind Pre-Development Activities</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Large-Scale Renewables Chapter Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>REV Technical Assistance Chapter</b>											
<i>REV Connect</i>	\$ -	\$ 0.25	\$ 0.25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.50
<b>REV Technical Assistance Chapter Total</b>	\$ -	\$ 0.25	\$ 0.25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.50
<b>Energy Storage Chapter</b>											
<i>Reducing Barriers to Distributed Deployment</i>	\$ 3.40	\$ 9.70	\$ 9.70	\$ 7.30	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30.10
<b>Energy Storage Chapter Total</b>	\$ 3.40	\$ 9.70	\$ 9.70	\$ 7.30	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30.10

<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	\$ 42.00	\$ 263.00	\$ 394.00	\$ 245.00	\$ 83.10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,026.00
<b>Clean Transportation Chapter Total</b>	\$ 42.00	\$ 263.00	\$ 394.00	\$ 245.00	\$ 83.10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,026.00
<b>Agriculture Chapter</b>											
<i>2030 GLASE</i>	\$ 9.46	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9.46
<b>Agriculture Chapter Total</b>	\$ 9.46	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9.46
<b>Low- to Moderate-Income Chapter</b>											
<i>RetrofitNY</i>	\$ -	\$ -	\$ -	\$ 0.61	\$ 2.55	\$ 6.23	\$ 77.00	\$ 210.00	\$ 450.00	\$ 664.00	\$ 1,411.00
<i>REVitalize</i>	\$ -	\$ 3.75	\$ 2.13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5.88
<i>Low-Income Forum on Energy</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Healthy Homes Feasibility Study</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Low- to Moderate-Income Chapter Total</b>	\$ -	\$ 3.75	\$ 2.13	\$ 0.61	\$ 2.55	\$ 6.23	\$ 77.00	\$ 210.00	\$ 450.00	\$ 664.00	\$ 1,417.00
<b>Workforce Development and Training Chapter</b>											
<i>Industry Partnerships</i>	\$ 0.40	\$ 2.25	\$ 2.13	\$ 2.08	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6.85
<b>Workforce Dev. and Training Chapter Total</b>	\$ 0.40	\$ 2.25	\$ 2.13	\$ 2.08	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6.85
<b>Total Market Development</b>	\$ 738.40	\$ 673.30	\$ 744.50	\$ 314.20	\$ 149.70	\$ 67.42	\$ 119.50	\$ 233.60	\$ 465.70	\$ 670.00	\$ 4,176.00
<b>Innovation and Research</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Grid Modernization Chapter</b>											
<i>DER Interconnection</i>	\$ 3.35	\$ 2.48	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5.83
<i>High Performing Electric Grid</i>	\$ 3.95	\$ 11.50	\$ 13.60	\$ 11.40	\$ 14.60	\$ 14.60	\$ 14.60	\$ -	\$ -	\$ -	\$ 84.25
<b>Grid Modernization Chapter Total</b>	\$ 7.30	\$ 13.98	\$ 13.60	\$ 11.40	\$ 14.60	\$ 14.60	\$ 14.60	\$ -	\$ -	\$ -	\$ 90.08
<b>Innovation Capacity and Business Development Chapter</b>											
<i>CleanTech Startup Growth</i>	\$ 75.00	\$ 82.50	\$ 37.50	\$ 30.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 225.00
<b>Innovation Capacity and Bus. Dev. Chapter Total</b>	\$ 75.00	\$ 82.50	\$ 37.50	\$ 30.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 225.00
<b>Building Innovation Chapter</b>											
<i>NextGen HVAC</i>	\$ 20.00	\$ 30.00	\$ 25.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75.00
<b>Building Innovation Chapter Total</b>	\$ 20.00	\$ 30.00	\$ 25.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75.00
<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	\$ 0.20	\$ 7.00	\$ 7.50	\$ 6.50	\$ 6.50	\$ 4.00	\$ -	\$ -	\$ -	\$ -	\$ 31.70
<b>Clean Transportation Chapter Total</b>	\$ 0.20	\$ 7.00	\$ 7.50	\$ 6.50	\$ 6.50	\$ 4.00	\$ -	\$ -	\$ -	\$ -	\$ 31.70
<b>Total Innovation &amp; Research</b>	\$ 102.50	\$ 133.50	\$ 83.60	\$ 47.90	\$ 21.10	\$ 18.60	\$ 14.60	\$ -	\$ -	\$ -	\$ 421.80

**Table 12. Market Development and Innovation & Research Participants**

<b>Market Development</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Resource Acquisition Transition Chapter</b>											
<i>Commercial</i>	246	144	-								390
<i>Industrial</i>	370	155	80								605
<i>Agriculture</i>	330	330	-								660
<i>Multifamily Market Rate</i>	38,000	68,000	-								106,000
<i>Single Family Market Rate</i>	4,080	4,896	-								8,976
<i>LMI Single Family</i>	10,146	10,350	10,350								30,846
<i>LMI Multifamily</i>	73,000	70,000	77,000								220,000
<i>Commercial New Construction</i>	54	46	-								100
<i>Low Rise New Construction</i>	2,807	2,605	-								5,412
<i>Multifamily New Construction</i>	7,500	6,000	-								13,500
<i>Anaerobic Digesters</i>	2	2	2								6
<i>Fuel Cells</i>	2	2	2								6
<i>Small Wind</i>	35	35	35								105
<i>Solar Thermal</i>	190	-	-								190
<i>Combined Heat &amp; Power</i>	45	35	30								110
<b>Resource Acquisition Transition Chapter Total</b>	<b>136,800</b>	<b>162,600</b>	<b>87,500</b>	<b>-</b>							<b>386,900</b>
<b>Commercial Chapter</b>											
<i>Real Estate Tenant</i>	46	141	141	152	168	188	178	168	168	-	1,350
<i>Real Time Energy Management</i>	30	40	50	60	80	95	100	115	130	-	700
<i>REV Campus Challenge</i>	40	30	55	8	7	2	2	2	2	2	150
<b>Commercial Chapter Total</b>	<b>116</b>	<b>211</b>	<b>246</b>	<b>220</b>	<b>255</b>	<b>285</b>	<b>280</b>	<b>285</b>	<b>300</b>	<b>2</b>	<b>2,200</b>
<b>Industrial Chapter</b>											
<i>Continuous Energy Improvement</i>	15	25	20	-	-	-	-	-	-	-	60
<b>Industrial Chapter Total</b>	<b>15</b>	<b>25</b>	<b>20</b>	<b>-</b>	<b>60</b>						
<b>Communities Chapter</b>											
<i>Clean Energy Communities</i>	76	126	131	-	-	-	-	-	-	-	333
<b>Communities Chapter Total</b>	<b>76</b>	<b>126</b>	<b>131</b>	<b>-</b>	<b>333</b>						
<b>Large-Scale Renewables Chapter</b>											
<i>Offshore Wind Master Plan</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Offshore Wind Pre-Development Activities</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Large-Scale Renewables Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>REV Technical Assistance Chapter</b>											
<i>REV Connect</i>	-	-	-	-	-	-	-	-	-	-	-
<b>REV Technical Assistance Chapter Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Energy Storage Chapter</b>											
<i>Reducing Barriers to Distributed Deployment</i>	23	40	60	42	-	-	-	-	-	-	165
<b>Energy Storage Chapter Total</b>	<b>23</b>	<b>40</b>	<b>60</b>	<b>42</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>165</b>

<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	1,200	7,500	11,250	7,000	2,375	-	-	-	-	-	29,325
<b>Clean Transportation Chapter Total</b>	1,200	7,500	11,250	7,000	2,375	-	-	-	-	-	29,330
<b>Agriculture Chapter</b>											
<i>2030 GLASE</i>	-	5	10	5	5	-	-	-	-	-	25
<b>Agriculture Chapter Total</b>	-	5	10	5	5	-	-	-	-	-	25
<b>Low- to Moderate-Income Chapter</b>											
<i>RetrofitNY</i>	-	170	170	200	500	1,000	10,000	20,000	30,000	37,960	100,000
<i>REVitalize</i>	-	5	-	-	-	-	-	-	-	-	5
<i>Low-Income Forum on Energy</i>	748	763	778	794	810	826	842	859	876	-	7,296
<i>Healthy Homes Feasibility Study</i>	-	-	-	-	-	-	-	-	-	-	-
<b>Low- to Moderate-Income Chapter Total</b>	748	938	948	994	1,310	1,826	10,840	20,860	30,880	37,960	107,300
<b>Workforce Development and Training Chapter</b>											
<i>Industry Partnerships</i>	6	13	5	-	-	-	-	-	-	-	24
<b>Workforce Dev. and Training Chapter Total</b>	6	13	5	-	-	-	-	-	-	-	24
<b>Total Market Development</b>	139,000	171,500	100,200	8,261	3,945	2,111	11,120	21,150	31,180	37,960	526,300
<b>Innovation and Research</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Grid Modernization Chapter</b>											
<i>DER Interconnection</i>	3	5	5	-	-	-	-	-	-	-	13
<i>High Performing Electric Grid</i>	6	9	9	7	11	11	11	-	-	-	64
<b>Grid Modernization Chapter Total</b>	9	14	14	7	11	11	11	-	-	-	77
<b>Innovation Capacity and Business Development Chapter</b>											
<i>CleanTech Startup Growth</i>	32	92	15	16	11	12	13	-	-	-	191
<b>Innovation Capacity and Bus. Dev. Chapter Tot</b>	32	92	15	16	11	12	13	-	-	-	191
<b>Building Innovation Chapter</b>											
<i>NextGen HVAC</i>	-	5	8	7	5	-	-	-	-	-	25
<b>Building Innovation Chapter Total</b>	-	5	8	7	5	-	-	-	-	-	25
<b>Clean Transportation Chapter</b>											
<i>Electric Vehicles</i>	2	7	8	6	6	4	-	-	-	-	33
<b>Clean Transportation Chapter Total</b>	2	7	8	6	6	4	-	-	-	-	33
<b>Total Innovation &amp; Research</b>	43	118	45	36	33	27	24	-	-	-	326