# NEW YORK STATE RENEWABLE PORTFOLIO STANDARD PERFORMANCE REPORT









PROGRAM PERIOD ENDING APRIL 2010





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#### **EXECUTIVE SUMMARY**

In January 2010, following a comprehensive midcourse review of the existing Renewable Portfolio Standard ("RPS") program and goals, the Public Service Commission ("PSC" or "Commission") expanded the RPS goal to increase the proportion of renewable electricity consumed by New Yorkers from 25 percent to 30 percent, and extended the terminal year of the program from 2013 to 2015. After concluding its midcourse review, the Commission issued two orders in April 2010 regarding the RPS program. These orders established new Customer-Sited-Tier ("CST") program goals; authorized a new CST program aimed at encouraging geographic balance; added Solar Thermal energy systems as an eligible technology under the CST; authorized funding to achieve overall program goals by 2015; directed the development of a Customer-Sited Tier Operating Plan ("2010 CST Plan"); established the scope and cost of administration; and reaffirmed the role of the New York State Energy Research and Development Authority ("NYSERDA") as the administrator of the program.1

During the pendency of the 2009 mid-course review, the PSC authorized NYSERDA to conduct two additional Main Tier competitive solicitations. Those solicitations resulted in the selection of 11 new renewable facilities comprised of 368 megawatts ("MW") of new renewable capacity. Of the 39 new renewable electric generating facilities selected to date under the Main Tier portion of the RPS, 27 are currently operating. The remaining 12 are under development or construction, and are expected to be fully operational by the end of 2012. In addition, since the last RPS

Program Performance Report, issued in March 2009, the Customer-Sited Tier has yielded an additional 7.4 MW of installed capacity. As a result, based on solicitations issued to date, the total renewable capacity associated with the Main Tier and Customer-Sited Tier portions of the RPS Program could reach up to 1,562 MW by 2012. This renewable capacity is expected to contribute approximately 4.4 million megawatt hours ("MWh") of electricity per year toward the program goal, or enough clean energy to supply nearly 630,000 average homes.

Progress in the program through April 30, 2010 in meeting the RPS targets has yielded, and will continue to yield, significant economic benefits to the State of New York and its associated locales. Economic benefits accrue from the planning, development, construction, and operation of renewable energy facilities. These economic benefits come in the form of long and short term jobs, property tax or payment-in-lieu of tax benefits to local governments and school districts, and biomass fuel purchases, as well as from lease and/ or royalty payments to landowners. For example, as verified by the independent program evaluation contractors as part of the 2009 mid-course program evaluation, the facilities selected in the first three Main Tier solicitations are expected to yield approximately \$2.1 billion dollars in direct economic benefits measured in jobs, taxes and local payments, in-state purchases, biomass fuel purchases, and land leases over the 20-year life of the facilities. When the effects induced on the broader economy are considered, the total economic benefits are estimated at more than \$4.2 billion.<sup>2</sup>

#### PROGRAM HIGHLIGHTS

- Based on progress through April 30, 2010 in both the Main Tier and Customer-Sited Tier, NYSERDA anticipates progress toward the total NYSERDA RPS target to be 42% of the required 10.4 million MWh in 2015.
- As a result of solicitations issued to date, new renewable capacity could reach nearly 1,562 MW by the end
  of 2012 under both the Main Tier and Customer-Sited Tier, of which 1,518 MW will be located in New York.
- As of April 30, 2010, under the Main Tier portion of the RPS, 1,143 MW of new renewable capacity from 27 facilities under contract are operating; the remaining 389 MW, from 12 facilities, are currently under development and/or construction.

<sup>&</sup>lt;sup>1</sup> Case 03-E-0188 <u>Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard</u>, "Order Resolving Main Tier Issues;" "Order Authorizing Customer-Sited Tier Program through 2015 and Resolving Geographic Balance and Other Issues Pertaining to the RPS Program;" issued and effective April 2, 2010.

<sup>&</sup>lt;sup>2</sup> New York Main Tier, Impact and Process Evaluation, KEMA, Inc. This figure is aggregated from bid information provided by the facilities during the bid evaluation and award selection process. Contract terms require that facilities demonstrate actual investment of no less than 85% of the bid-based amount, or they will be penalized through a lowering of their contract prices.

#### INTRODUCTION

This annual report summarizes activities conducted through April 30, 2010 by NYSERDA and the Department of Public Service ("DPS") in implementing the New York State Renewable Portfolio Standard. This report includes background on the RPS, objectives and performance targets, and a summary of RPS Program outcomes, funding, and expenses. The RPS annual report will transition to a calendar year reporting cycle beginning in 2011, with the 2010 annual report being published at the end of the first quarter of 2011. Previous program performance reports and related information can be found at: http://www.nyserda.org/rps/documents.asp.

#### **BACKGROUND**

The 2002 State Energy Plan warned of the possible consequences of New York's heavy dependence on fossil fuels.3 The Energy Plan noted that the State's fossil fuel resources (gas, coal, oil) are largely imported from abroad or out-of-state, have significant long-term negative environmental impacts, and face ultimate depletion. Recognizing the need for a proactive approach to the State's energy and environmental challenges, in February of 2003, the New York State Public Service Commission ("Commission") initiated a proceeding to explore the development of a Renewable Portfolio Standard. On September 24, 2004, following an extensive stakeholder process, the Commission issued an Order adopting an RPS, with the goal of increasing the proportion of renewable energy used by New York consumers from the then-current 19.3% (baseline resources) to at least 25% by the end of 2013.4

As part of the September 24, 2004 Order, the Commission designated NYSERDA as the central procurement administrator for the RPS Program. In doing so, the Commission noted an expectation that voluntary renewable purchases by retail customers (the "Voluntary Market") would contribute at least 1% toward the 25% goal, thus leaving baseline resources, State Agencies'



Photo courtesy of Noble Environmental Power

purchases under Executive Order 111 ("EO 111"), and new capacity realized through NYSERDA procurements to satisfy the remaining 24%. In the same Order, the Commission directed the major investor-owned utilities to collect funds from ratepayers for the purpose of supporting NYSERDA's implementation responsibilities.

During 2009, the Commission undertook a planned mid-course review of the RPS program and its goals. In anticipation of this mid-course review, in early 2009, NYSERDA prepared and submitted an Evaluation Report.<sup>5</sup> Two technical conferences were held by the Commission to explore the issues raised by the Department of Public Service staff in response to the Evaluation Report. Subsequently, in early 2010, the Commission expanded

<sup>&</sup>lt;sup>3</sup> State Energy Plan, 1-1. (June 2002).

<sup>&</sup>lt;sup>4</sup> <u>Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard,</u> "Order Regarding Retail Renewable Portfolio Standard," issued and effective September 20, 2004.

<sup>5</sup> NYSERDA, New York State Renewable Portfolio Standard Evaluation Report: 2009 Review (Evaluation Report). The Evaluation Report relied on the reports of two NYSERDA contractors: KEMA, New York Main Tier RPS: Impact and Process Evaluation (March 2009) and Summit Blue Consulting, New York State Renewable Portfolio Standard: Market Conditions Assessment – Final Report (February 19, 2009).

the RPS goal to increase the proportion of renewable electricity consumed by New York customers from 25 percent to 30 percent and extended the terminal year of the program from 2013 to 2015,6 thus formalizing a goal set by Governor Paterson, and reaffirmed in the 2009 State Energy Plan.7 These changes to the RPS program targets reflect the State's continued commitment to support the development of various renewable energy technologies, and will help achieve New York's '45 by 15' clean energy goals.

In concluding its mid-course review of the RPS Program, the Commission issued two orders in April 2010 regarding the RPS program.<sup>8</sup> Therein the Commission:

- a) established new CST program goals for the previously approved CST technologies (photovoltaic, PV, fuel cell, anaerobic gas-to-electric digester technologies, ADG, and on-site wind installations) to help support the overall RPS program target of 30% by 2015;
- b) authorized a new CST program aimed at encouraging additional customer-sited installations in the downstate region (NYISO Zones G, H, I and J);
- c) authorized a new CST program focused solely on the deployment of solar thermal energy systems;
- d) authorized funding through the full compliance period for the overall RPS program, inclusive of new CST programs and program administration that it determined to be sufficient to achieve overall program goals by 2015;
- e) directed NYSERDA to consult with the DPS on the development of a Customer-Sited Tier Operating Plan ("Plan") for solicitation of customer-sited renewable resources, and provided the parameters and principles that were to be incorporated therein; and
- f) established the scope and cost of the administration of the RPS program, reaffirmed NYSERDA's role as central procurement authority, and provided for augmented and extended collections from electric delivery customers to fully achieve NYSERDA's 2015 targets.

In most other states with RPS programs, the renewable energy percentage target is implemented by requiring local delivery utilities and/or energy service companies ("ESCOs") to supply their customers with a certain percentage of electricity from renewable sources. New York's RPS Program uses a central procurement model, with NYSERDA as the central procurement administrator. NYSERDA does not procure renewable electricity directly. Rather, NYSERDA pays a production incentive to renewable electricity generators selected through competitive solicitations for the electricity they deliver for end use in New York. In exchange for the production incentive, the renewable generator transfers to NYSERDA all rights and/or claims to the RPS Attributes associated with each MWh of renewable electricity generated, and guarantees delivery of the associated electricity to the New York State ratepayers.9 RPS Attributes include any and all reductions in harmful pollutants and emissions, such as carbon dioxide and oxides of sulfur and nitrogen. By acquiring the RPS Attributes, rather than the associated electricity, the RPS Program ensures that increasing amounts of renewable electricity will be injected into the State's power system, while minimizing interference with the State's competitive wholesale power markets.



NYSERDA photo

<sup>&</sup>lt;sup>6</sup> Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Establishing New RPS Goal and Resolving Main Tier Issues;" issued and effective January 8, 2010.

<sup>&</sup>lt;sup>7</sup> 2009 State Energy Plan. 2009. Available at: http://www.nysenergyplan.com/stateenergyplan.html

Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Authorizing Customer-Sited Tier Program Through 2015 and Resolving Geographic Balance and Other Issues Pertaining to the RPS Program," "Order Resolving Main Tier Issues;" issued and effective April 2, 2010.

<sup>&</sup>lt;sup>9</sup> "RPS Attributes" include any and all reductions in harmful pollutants and emissions, such as carbon dioxide and oxides of sulfur and nitrogen. RPS Attributes are similar to Renewable Energy Certificates that are commonly used in other RPS programs to catalog and recognize environmental attributes of generation.

### TIERED APPROACH TO IMPLEMENTING THE RPS

The Commission established two tiers of resource types under the RPS Program. The larger, Main Tier, consists primarily of medium to large-scale electric generation facilities that deliver their electrical output into the wholesale power market administered by the New York Independent System Operator ("NYISO"). Noting the importance of accelerating the development of emerging technologies, because of their environmental benefits and ability to be sited in urban, heavy-loaded areas, the Commission also established a second, Customer-Sited Tier. The Customer-Sited Tier consists of smaller, "behind-the-meter" resources, such as photovoltaic systems, fuels cells, customer-sited wind facilities, and similar technologies that produce electricity for use on site.

Only renewable energy systems installed on or after January 1, 2003 are eligible to participate in the RPS, and Customer-Sited Tier resources must be located in New York State. While the Main Tier operates through the issuance of periodic competitive solicitations, eligible Customer-sited Tier resources are supported through a combination of incentives for the "buy-down" of capital costs and/or energy production.

Eligible resources and technologies for both the Main Tier and Customer-sited Tier are as specified by the Commission. The RPS Program also includes a process for the evaluation of new resources and technologies for eligibility in the program as it progresses.

### RENEWABLE ENERGY TARGETS

The Commission's January 8, 2010 Order set forth annual renewable energy targets that represent an incremental glide path toward achievement of the 2015 goal of having 30% of the power consumed in New York come from renewable energy. The Commission further detailed the State renewable energy targets, and the supporting calculation methodology, necessary to meet the RPS goal in its April 2, 2010 Order. These calculations assume a reduction of our electricity consumption, through energy-efficiency efforts, of 15 percent over a business-as-usual growth forecast for the year 2015, and also assume renewable electricity purchases made through a variety of initiatives including Executive Order 111, Voluntary Market activity (explained later in this report), and Long Island Power Authority contributions.

As outlined in the April 2, 2010 Order, NYSERDA's overall target amounts to approximately 10.4 million megawatt-hours annually by 2015 through contributions from both the Customer-Sited Tier and the Main Tier.<sup>12</sup> This consists of approximately 9.8 million MWh from the Main Tier and .6 million MWh from the Customer-Sited Tier.





Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Approving Implementation Plan, Adopting Clarifications, and Modifying Environmental Disclosure Program," Appendix B, issued and effective April 14, 2005, and; "Order Authorizing Customer-Sited Tier Program Through 2015 and Resolving Geographic Balance and Other Issues Pertaining to the RPS Program;" issued and effective April 2, 2010.

<sup>&</sup>lt;sup>11</sup> Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Authorizing Customer-Sited Tier Program Through 2015 and Resolving Geographic Balance and Other Issues Pertaining to the RPS," Appendix, Table 17, issued and effective April 2, 2010.

<sup>12</sup> Id

# MAINTENANCE RESOURCE PARTICIPATION

In creating the Program, the Commission recognized that 19.3% of the energy sold at retail in New York was being generated by renewable resources that existed prior to adoption of the RPS in 2004 ("baseline resources"). For the purpose of ensuring the continuing operation of these valuable existing resources, the Commission's September 24, 2004 Order established an additional Maintenance Resource program.<sup>13</sup> To be eligible to receive RPS program funding as a Maintenance Resource, a baseline resource is required to demonstrate financial hardship through a formal request to the Commission. Upon such a request, the Commission evaluates the existence and degree of hardship and makes a determination as to the eligibility of the facility for Maintenance Resource treatment. The Commission may or may not grant Maintenance Resource status. If this status is granted, the Commission determines the form and magnitude of support to be offered.

Based on Commission determinations, NYSERDA has entered contracts with two Maintenance Resources, the Lyonsdale Biomass Plant located in Lyons Falls, New York, and the Boralex Biomass plant, located in Chateaugay, New York. In combination, the Lyonsdale and Boralex contracts support the retention of approximately 39 MW of in-state biomass capacity and involve approximately 266,000 MWh of annual energy production. The total funding committed to these multi-year contracts is approximately \$33.9 million. These maintenance resource quantities do not count toward Main Tier incremental energy targets. During the reporting period, no additional facilities were granted Maintenance Resource status.

In the April 2010 Order, the Commission reaffirmed that baseline resources demonstrating financial hardship could, through a formal request to the Commission, be considered for Maintenance Resource Treatment.<sup>14</sup>

# STEPS TAKEN TO SUPPORT THE VOLUNTARY MARKET

Several program design features have been incorporated into the Main Tier in an effort to support the ultimate program goal of transitioning to the voluntary market. For example, in the second through fifth Main Tier solicitations, NYSERDA capped Main Tier bids at 95% of a facility's attributes, thus guaranteeing that a minimum of 5% of those facilities' renewable production is available for voluntary sales. Also, a handful of Main Tier project contractors have taken advantage of a program design feature that permits partial bidding, thus leaving additional output available for non-RPS sales including the voluntary market in New York. In addition, in the second through fifth Main Tier solicitations, NYSERDA structured its contracts to provide flexibility for contractors to suspend deliveries to NYSERDA in order to make sales to the New York voluntary green market and, as of April 30, 2010, three facilities have exercised this option. 15 DPS staff records indicate that in 2008, 276,144 MWh were purchased by 22 Energy Service Companies and the Investor Owned Utilities ("IOUs") and delivered to retail customers in response to their interest in clean energy.

#### **EXECUTIVE ORDER 111**

Executive Order 111 requires New York State agencies to procure 20% of their electricity from renewable sources by 2010. The affected State agencies have reported to NYSERDA that, during State Fiscal Year 2008/09 (April 1 through March 31), 10.2% of the electricity used in State buildings, or approximately 275,400 MWh, was produced from renewable sources.

<sup>13</sup> Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Regarding Retail Renewable Portfolio Standard;" issued and effective September 24, 2004.

Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Authorizing Customer-Sited Tier Program Through 2015 and Resolving Geographic Balance and Other Issues Pertaining to the RPS;" issued and effective April 2, 2010.

<sup>15</sup> Contractors are not obligated to serve the NY voluntary market with any output not under contract with NYSERDA, while contractors who suspend delivery to NYSERDA are required to make sales into the NY voluntary market.

#### PROGRESS AND RESULTS

The NYSERDA RPS target, established in the Commission's April 2, 2010 Order, for the combined Main Tier and Customer-Sited Tiers, is approximately 10.4 million MWh by 2015. Based on progress through April 30, 2010 in both the Main Tier and the Customer-Sited Tier, NYSERDA expects to procure up to 4,366,471 MWh by 2015. As presented in Table 1, this represents progress of about 42% toward the NYSERDA portion of the RPS target.

Expected Customer-Sited Tier contracts are currently anticipated to support the installation of systems capable of producing 90,331 MWh by 2015, representing 14.5% of the total Customer-Sited Tier portion of the NYSERDA RPS target. As Main Tier facilities that entered operation prior to April 30, 2010 ramp up to a full year's production, and as those facilities selected in the most recent Main Tier solicitations enter operation during 2010 and 2011, NYSERDA's actual purchases, based on quantities under contract, are expected to be 4,276,140 MWh in 2015. This puts New York at 43.7% of the 2015 Main Tier target.<sup>17</sup>

Table 1. NYSERDA 2015 RPS Procurements and Energy Targets (in MWh) and Progress as of April 30, 2010

	Target	Progress	Progress as % of Target
Customer Sited Tier	623,390	90,331	14.5%
Main Tier	9,774,464	4,276,140	43.7%
Total	10,397,854	4,366,471	42.0%

Renewable resources such as wind and hydroelectric are by nature intermittent, making it difficult to estimate their annual and long-term electricity production. In addition, financing and construction-related impediments can cause delays in facility construction. While unfortunate, project development delays and under-performance of operating projects impacts the annual reporting of program progress and results. As such, annual reporting data can reflect unintended variations in performance toward reaching annual targets. Unpredictable production and project delays and setbacks have not been overlooked in program and contract design, in order to ensure that the ultimate goal of 30% by 2015 is attainable despite these uncertainties.

For example, under the Main Tier portion of the RPS, to ensure that program goals are met and other projects are afforded opportunities for funding, the RPS contracts require that each project deliver, each year, at least a minimum percentage of the quantity of energy associated with its bid. If a project fails to meet this percentage for a specified number of consecutive years, the annual quantity of RPS Attributes that NYSERDA is obligated to purchase from that project is reduced for the remaining years of the contract. For example, the Maple Ridge Wind Farm did not meet its obligation to deliver the required 85% of its contracted bid quantity for three consecutive years (2006, 2007, and 2008). As a consequence, this facility's contracted bid quantity was reduced for the seven remaining years of the contract.<sup>18</sup> This adjustment represents a loss of approximately 176,000 MWh per year toward program targets. However, the funds associated with that quantity were disencumbered from the project and made available through subsequent solicitations.

#### **MAIN TIER**

NYSERDA has conducted five competitive Main Tier solicitations in pursuit of the Main Tier renewable energy procurement target as set forth in Table 1 at left. From these five solicitations a total of 39 facilities have been awarded RPS contracts. The Bear Creek (Pennsylvania) wind farm contract expired January 31, 2010. The 38 remaining facilities, all with active contracts, are listed in Table 3 on page 10. Thirty seven are located in New York; one is located in Quebec. These 38 facilities are under contract to provide a combined 4,276,140 MWh of renewable energy per year, from approximately 1,532 MW of new renewable capacity.<sup>19</sup> These include three fossil fuel plants that will co-fire biomass as a fuel source, two new 100 percent biomass-fueled facilities, one landfill biogas operation, nineteen hydroelectric station upgrades, and fourteen wind farms. Of the 38 new renewable electric generating facilities with active contracts, 26 are now operating, four are under construction, and the eight selected under the fifth solicitation (RFP 1851) are under development.

**Table 2. Project Development Status for Active Main Tier Contracts** 

					# In	
	MW	MW In	Total	#	Construction or	
	Operating	Construction	MW	Operating	development	Total #
Wind	1084.5	281	1365.5	9	4	13
Hydroelectric	28.6	8.3	36.9	15	4	19
Biomass	30	99.7	129.7	2	4	6
Totals	1143.1	389	1532.1	26	12	38



Photo courtesy of Brookfield Power

Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Authorizing Customer-sited Tier Program through 2015 and Resolving Geographic Balance and Other Issues Pertaining the RPS Program;" issued and effective April 2, 2010.

<sup>17</sup> NYSERDA does not count a project's output or potential output that is not under contract toward program targets. Contract quantities are as of April 30, 2010, including any adjustments to contract quantities from those facilities that have underperformed.

<sup>&</sup>lt;sup>18</sup> Percentages and number of years vary by RFP and facility type (wind, hydro, etc.).

<sup>&</sup>quot;New renewable capacity" generally refers to nameplate capacity at facilities under contract in the RPS that did not exist prior to the start of the RPS program, including any portion not under contract with NYSERDA.

The Main Tier facilities with active RPS contracts are owned by or affiliated with 15 different entities, as shown in Table 3 below.

**Table 3. Main Tier Facilities** 

Facility	Contractor	County
BIOMASS	<u>'</u>	-
AES Greenidge Station	AES Greenidge, LLC	Yates
Niagara Generating Facility	USRG Niagara Biomass, LLC	Niagara
NRG Dunkirk	NRG Energy, Inc.	Chatauqua
Black River Generation	Catalyst Renewables, LLC	Jefferson
Onondaga Renewables	Onondaga Renewables, LLC	Onondaga
Albany Energy, LLC	Fortistar Methane Group, LLC	Albany
HYDRO		•
High Falls	Brookfield Energy Marketing Inc.	NA – Canada (Quebec)
Effley Hydro	Brookfield Power New York	Lewis
Piercefield Hydro	Brookfield Power New York	St. Lawrence
Sherman Island	Brookfield Power New York	Saratoga
Allens Falls	Brookfield Power New York	St. Lawrence
Browns Falls	Brookfield Power New York	St. Lawrence
Colton	Brookfield Power New York	St. Lawrence
Eagle	Brookfield Power New York	Lewis
East Norfolk	Brookfield Power New York	St. Lawrence
Higley	Brookfield Power New York	St. Lawrence
Norfolk	Brookfield Power New York	St. Lawrence
Norwood	Brookfield Power New York	St. Lawrence
Oswego Falls	Brookfield Power New York	Oswego
Raymondville	Brookfield Power New York	St. Lawrence
Spier Falls	Brookfield Power New York	Saratoga
Taylorville Hydro Project	Brookfield Renewable Power	Lewis
Wappingers Falls Hydro	Wappingers Falls Hydroelectric	Dutchess
School Street	Erie Boulevard Hydropower	Albany
Stewarts Bridge	Erie Boulevard Hydropower	Saratoga
WIND		
Dutch Hill Wind Farm	FirstWind (formerly UPC Wind)	Steuben
Cohocton Wind Farm	FirstWind (formerly UPC Wind)	Steuben
Maple Ridge Wind Farm	Iberdrola Renewables/Horizon Wind	Lewis
Noble Altona Windpark	Noble Environmental Power	Clinton
Noble Bellmont Windpark	Noble Environmental Power	Franklin
Noble Bliss Windpark	Noble Environmental Power	Wyoming
Noble Chateaugay Windpark	Noble Environmental Power	Franklin
Noble Clinton Windpark I	Noble Environmental Power	Clinton
Noble Ellenburg Windpark	Noble Environmental Power	Clinton
Noble Wethersfield Windpark	Noble Environmental Power	Wyoming
Steel Winds II	First Wind	Erie
Hardscrabble Wind	Iberdrola Renewables, Inc.	Herkimer
Marble River Wind Farm	Horizon Wind Energy	Clinton

A map identifying the location of each Main Tier and Maintenance Resource facility can be found in Figure 1 below. Additional details about each Main Tier and Maintenance Tier facility participating in the RPS can be found in Appendix A.

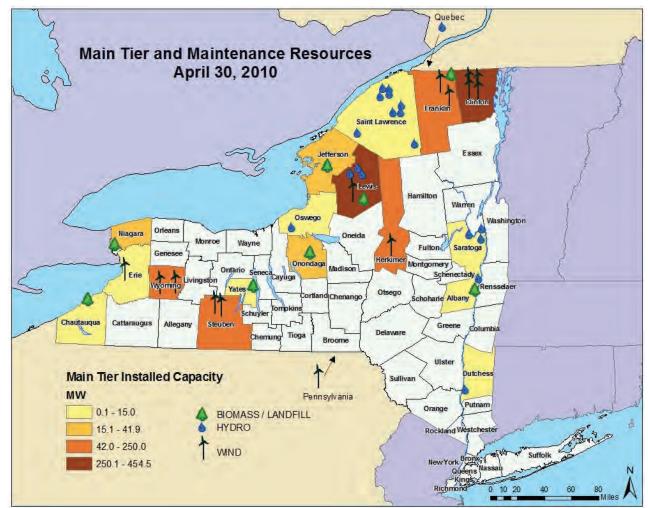


Figure 1: Main Tier and Maintenance Resources - NYS map

### FIRST MAIN TIER SOLICITATION

NYSERDA's first competitive Main Tier solicitation (RFP 916) awards were announced in January 2005, with an expected facility online date of January 1, 2006. The solicitation was issued as a sealed bid, pay-as-bid Request for Proposal ("RFP"). In this solicitation, bidders were awarded contracts based on the price bid for RPS Attributes alone. No other factors were taken into account to determine selection and the ultimate award of a contract.

The first Main Tier solicitation resulted in contracts for the development of 254 MW of renewable capacity at five facilities (two wind and three hydroelectric

upgrades), from which NYSERDA would provide production incentives for 865,582 MWh per year.<sup>20</sup> At the timing of the award, the total funding commitment associated with this solicitation was approximately \$173.6 million, and the weighted average production incentive awarded was \$22.90 per RPS Attribute.

As of April 30, 2010 the total funding commitment for RFP 916 has been reduced to \$138,250,350 and the total production incentives provide for a maximum of 609,402 MWh of clean, renewable power per year. This reduction in funding commitment and associated MWh resulted from project under-performance, and contract expiration for two facilities. One additional contract expired on January 31, 2010; remaining funds associated with that contract have not yet been disencumbered.

<sup>20</sup> There were initially seven bidders that won contracts in this solicitation, but two facilities, the Criterion Wind Farm and the Jersey Atlantic Wind Farm, failed to meet contractual obligations, and their contracts were terminated.

### SECOND MAIN TIER SOLICITATION

The second competitive Main Tier solicitation (RFP 1037) awards were announced in February 2007 with an expected facility online date of January 1, 2008. Unlike the first Main Tier solicitation, awards were based on two evaluation components: (1) the bid price, weighted at 70%; and (2) the ability of the bidder to demonstrate economic benefits to New York State created by the development, construction and operation of the bid facility, weighted at 30 percent. The solicitation was designed as a two-step process, consisting of: (1) an application step that pre-qualified bidders; and (2) a competitive bid proposal submission step. Only those bidders found pre-qualified through the Step 1 application process were permitted to submit bid proposals in Step 2.

The second solicitation resulted in the award of contracts to 20 new or upgraded facilities, all located in New York. One facility, the proposed Jordanville Wind Farm, failed to meet contract milestones, and the contract was terminated. Another facility, Noble Chateaugay Windpark, was split into two projects at the request of the contractor for reasons related to physical substation configurations and interconnection, creating two windparks: Noble Bellmont Windpark and Noble Chateaugay Windpark (total combined quantities under contract to NYSERDA remain the same). A third facility, the proposed Windfarm Prattsburgh, was cancelled in late 2008, with the contractor citing the then-challenging economic environment.

Under the remaining 19 contracts, 671 MW of new renewable capacity is under contract, from which NYSERDA could provide production incentives for approximately 1,800,000 MWh per year. At the time of the awards, the total funding commitment associated with this solicitation was approximately \$266.3 million, and the weighted average price awarded was \$15.52 per RPS Attribute.

As of April 30, 2010 the total funding commitment for RFP 1037 has been reduced to \$260,900,601, and the total production incentives provide for a maximum of 1,784,480 MWh of clean, renewable power per year. This reduction in funding commitment, and associated MWh, resulted from project under-performance by one facility, and contract suspensions to sell into the Voluntary Market by three facilities. All funds associated with underproduction and energy suspended were disencumbered, and made available in future solicitations.

# THIRD MAIN TIER SOLICITATION

The third competitive Main Tier solicitation (RFP 1168) was completed in the first quarter of 2008, with an expected facility online date of January 1, 2009. Awards were announced in January 2008 and were based on price, weighted at 70%, and economic benefits to New York State weighted at 30%. The solicitation followed the same two-step bid evaluation process as that employed for the previous solicitation.

The third solicitation resulted in the execution of contracts for 11 new or upgraded facilities, representing approximately 824,550 MWh per year.<sup>22</sup> At the time of award, the total funding commitment associated with this solicitation was approximately \$118.6 million, and the weighted average price awarded was \$14.75 per RPS Attribute. Three facilities, Noble Allegany Windpark, Noble Chateaugay Windpark II, and Windfarm Prattsburgh, (which had contracted for 10% of its output under RFP 1037 and an additional 30% under RFP 1168), were cancelled citing the challenging economic environment that existed in 2008.

As of April 30, 2010 the total funding commitment for RFP 1168 has been reduced to \$73,270,739 and the total production incentives provide for a maximum of 484,458 MWh of clean, renewable power per year.

<sup>21</sup> This solicitation structure was authorized by the Commission's October 19, 2006, Order. <u>Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard</u>, "Order Authorizing Solicitation Methods and Consideration of Bid Evaluation Criteria;" issued and effective October 19,2006.

<sup>&</sup>lt;sup>22</sup> One facility failed to enter into a contract after being notified of an award.

### FOURTH MAIN TIER SOLICITATION

The fourth competitive Main Tier Solicitation (RFP 1681) awards were announced in December 2009, with an expected facility online date of July 1, 2011 for non-fuel based facilities, and July 1, 2012 for fuel-based facilities. This solicitation was issued in response to an August 2009 Public Service Commission Order.<sup>23</sup> As was the case for previous solicitations, awards were based on price, weighted at 70%, and economic benefits to New York State, weighted at 30%. The solicitation followed the same two-step bid evaluation process as was employed for the previous solicitations.

The fourth solicitation resulted in the award of contracts to five new or upgraded facilities. Under these contracts, contractors are obligated to build 142 MW of renewable capacity, from which NYSERDA could provide production incentives for approximately 578,656 MWh per year. At the time of award, the total funding commitment associated with this solicitation was approximately \$96 million, and the weighted average price awarded was \$19.76 per RPS Attribute.

As of April 30, 2010 the total funding commitment for RFP 1681 has been reduced to \$89,574,018 and the total production incentives provide for a maximum of 436,630 MWh of clean, renewable power per year. This reduction in funding commitment, and associated MWh, resulted from one bidder's failure to enter into the standard form contract.

Figure 2. Main Tier Solicitations — Weighted Average Award Price by RFP



### FIFTH MAIN TIER SOLICITATION

The fifth competitive Main Tier Solicitation (RFP 1851) awards were made in March 2010, with an expected facility online date of December 31, 2011. This solicitation was issued in response to a January 2010 Public Service Commission Order.<sup>24</sup> As was the case for previous solicitations, awards were based on price, weighted at 70%, and economic benefits to New York State weighted at 30%. The solicitation followed the same two-step bid evaluation process employed for the previous solicitation.

The fifth solicitation resulted in the award of contracts to provide production incentives to eight new or upgraded facilities. Under these contracts, contractors are obligated to build 318 MW of renewable capacity, from which NYSERDA could provide production incentives for approximately 1,100,000 MWh per year. The total funding commitment associated with this solicitation was approximately \$204 million, and the weighted average price awarded was \$21.17 per RPS Attribute.

As of April 30, 2010 the total funding commitment and MWh for RFP 1851 remains unchanged.

The aggregate weighted average award price from the five Main Tier solicitations is \$18.18. The first solicitation yielded the highest weighted average award price (\$22.95), while the third solicitation resulted in the lowest (\$14.75). As is illustrated in Figure 2 below left, average contract award prices under the second (RFP)

1037) and third (RFP 1168) Main Tier solicitations were more than 30% lower than under the first Main Tier solicitation (RFP 916). Prices in solicitations four (RFP 1681) and five (RFP1851) have trended somewhat higher than the previous two solicitations, but were also below the initial solicitation weighted average price.

<sup>23</sup> Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Authorizing Additional Main Tier Solicitation and Setting Solicitation Guidelines;" issued and effective August 21, 2009.

<sup>24</sup> Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Establishing New RPS Goal and Resolving Main Tier Issues;" issued and effective January 8, 2010.

#### **CUSTOMER-SITED TIER**

Four Customer-Sited Tier resource categories were advanced through solicitations stemming from the 2007 CST Operating Plan. This funding was offered through an open enrollment, first-come, first-served process for photovoltaic ("PV"), fuel cell, anaerobic gas-to-electric digester technologies ("ADG"), and small wind installations. To maintain continuity in program offerings under the 2007 CST Operating Plan, which expired in December 2009, until a

decision on overall program goals, implementation specifications, and funding could be rendered, the Commission authorized interim funding through June 2010.<sup>25</sup> Program implementation activities on the basis of the 2007 CST Operation plan are expected to yield approximately 32 MW of new installed capacity and approximately 90,000 MWh/year toward the RPS target. Tables 5 and 6 below present a forecast of installed capacity and energy production associated with contract commitments and contracts that are pending.

Table 5. Actual and Expected Installed Capacity effective April 30, 2010 (MW)

CST Program	Pending Contracts	Actual Installed Capacity	Total Pending and Installed Capacity
Solar Photovoltaics	10.99	11.29	22.28
Fuel Cells	0.425	.005	0.43
Anaerobic Digesters	5.45	3.06	8.51
Small Wind	0.42	0.21	0.63
Program Total	17.29	14.56	31.86

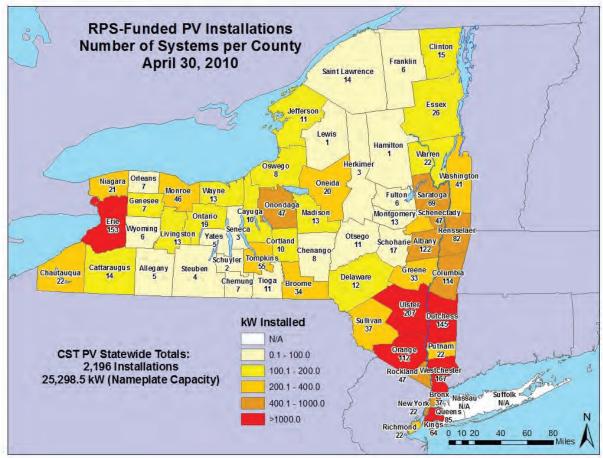
Table 6. Actual and Expected Energy Production effective April 30, 2010 (MWh)

CST Program	Expected Production from Pending Contracts	Actual Energy Production from Installed Capacity	Total Expected Production Progress
Solar Photovoltaics	14,238	14,633	28,871
Fuel Cells	1,701		1,701
Anaerobic Digesters	37,864	21,064	58,927
Small Wind	582	249	831
Program Total	54,385	35,946	90,331

<sup>&</sup>lt;sup>25</sup> Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Providing Interim Funding for the Customer-Sited Tier;" issued February 16, 2010.

Figure 3 (RPS Funded Solar Installations by County) and Figure 4 (RPS Funded CST Installations - Exclusive of PV), on page 16, display a graphical summary of the progress in the Customer Sited Tier through April 30, 2010. As Figure 3 illustrates, the majority of the solar PV projects (930, or 42% of the total) are located in and south of Ulster County with the highest concentration of projects (207) being located in Ulster County.





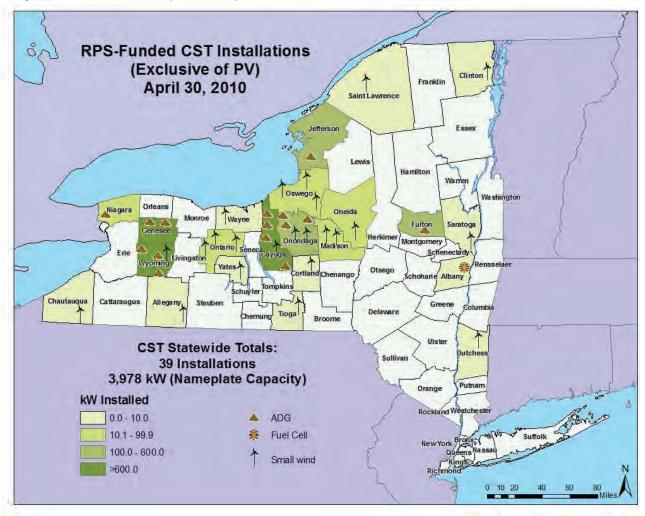
In an April 2, 2010 Order<sup>26</sup>, the Commission established new CST program goals for the previously approved CST technologies (photovoltaic, fuel cell, anaerobic gasto-electric digester technologies, and on-site wind installations), authorized a new CST program aimed at encouraging additional customer-sited installations in the downstate region (NYISO Zones G, H, I and J), and authorized a new CST technology for solar thermal energy systems. The Commission also established guidance on program implementation, capacity and energy targets, authorized incentive funding of \$429 million for the 2010-2015 time period, and directed NYSERDA to develop a new Customer-Sited Tier Operating Plan. NYSERDA, in consultation with the DPS, established the 2010 CST Plan, which sets forth general program specifications, capacity and generation targets, and associated budgets. The 2010 CST Plan was approved on June 29, 2010, and can be found at:

http://documents.dps.state.ny.us/public/Common/View-Doc.aspx?DocRefId={49155B23-5C0D-4349-A77A-175E8C4FAD36}. General descriptions of the CST programs included in this plan are presented below.

PV Program was issued in March 2008 to replace the similar System Benefits Charge ("SBC") funded PV incentive program. The PV incentive program will continue to be offered through an open enrollment solicitation designed to offer the lowest incentive possible to continue to grow the market for PV. Incentive levels will be adjusted regularly to address consumer demand and market factors in a way that will avoid program "starts and stops" and enable renewable energy business to continue to grow in New York State. The program will also integrate an electric energy efficiency audit as a component of the program.

<sup>&</sup>lt;sup>26</sup> Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Authorizing Customer-sited Tier Program through 2015 and Resolving Geographic Balance and Other Issues Pertaining the RPS Program;" issued and effective April 2, 2010.

Figure 4: RPS-Funded Installations (Exclusive of PV)



Geographic Balancing Program is a new initiative designed to encourage additional customer-sited installations of renewable electric generation in the downstate region (NYISO Zones G, H, I and J). The program will be designed to facilitate larger installations of eligible projects (above 50 kW), including renewable biogas projects that accept delivery of biogas from a pipeline delivering the fuel from a separate location to the generating electricity. These larger installations will be coordinated with the distribution companies within the target zones, and other stakeholders. The program will implement measures to identify and address institutional and technical barriers to installation, minimize potential market confusion, and assess electric grid and location-based value of installations. The primary delivery mechanism for the program will be one or more annual competitive solicitations.

**Fuel Cell Program** was released in December 2007. Incentives are provided in the form of capacity buy-down and performance-based payments for commercially

mature fuel cell modules (experimental fuel cells are supported through the System Benefits Charge). Program payments are differentiated by the scale and type of application of fuel cell system.

Anaerobic Digester Gas-to-Electricity Program was first released in August 2007. The program will be continued with a similar structure, providing capacity and performance incentives for ADG systems installed at farms treating manure and other agricultural waste products, wastewater treatment plants ("WWTPs"), and businesses that treat organic wastes.

On-Site Wind Program was released in April 2007. Beginning in early 2011, the program approach will focus on regular and predictable competitive solicitations. Nevertheless, should such an approach inhibit growth in participation, an open-enrollment program component may also be used. System design and installation will be subject to verification and inspection respectively.

Solar Thermal Program is a new initiative that will be an application-based program with incentives for solar hot water systems for all sectors. This program will integrate an electric energy efficiency audit as a component of the program. Solar Thermal hot water systems will receive incentives as an alternative to electric water heating. Only electrical energy savings associated with solar water heating will contribute to program goals.

As the 2010 CST Plan reflects, the Commission's April 2, 2010 Order authorized additional funding, by resource type, of approximately \$429 million for the 2010-2015 time period (see table 7 below).<sup>27</sup>



Biogas Generator — NYSERDA photo

Table 7. Customer-Sited Tier Funding Budget by Program 2010-2015

		Fυ	nding Amou	nts (in millior	ıs)		
Program	2010	2011	2012	2013	2014	2015	Total
Solar	\$24.000	\$24.000	\$24.000	\$24.000	\$24.000	\$24.000	\$144.000
Photovoltaics							
Geographic	\$	\$30.000	\$30.000	\$30.000	\$30.000	\$30.000	\$150.000
Balancing <sup>28</sup>							
Fuel Cells	\$3.600	\$3.600	\$3.600	\$3.600	\$3.600	\$3.600	\$21.600
Anaerobic	\$13.275	\$13.300	\$12.000	\$11.600	\$10.200	\$10.200	\$70.575
Digestion							
Systems							
On-Site Wind	\$1.575	\$2.800	\$2.900	\$3.100	\$3.800	\$4.000	\$18.175
Solar	\$3.225	\$4.300	\$4.300	\$4.300	\$4.300	\$4.300	\$24.725
Thermal							
Total	\$45.675	\$78.000	\$76.800	\$76.600	\$75.900	\$76.100	\$429.075

Budgets provided in Table 7 are for program costs only. Costs for program administration and evaluation are provided separately in the April 2, 2010 Order.<sup>29</sup>

Also pursuant to the Order, the estimates of installed capacity and energy production associated with projects contracted during the 2010- 2015 time period are approximately 254 MW and 531,569 MWh, as outlined

in Table 8 on page 18.<sup>30</sup> Achievement of the targets expressed in Table 8 will be measured on the basis of energy production associated with funding that is encumbered/contracted or pending contracting as of the end of program year 2015. As noted by the Order, the "figures illustrate expectations" and are not intended as hard targets.<sup>31</sup> Actual rates of achievement are expected to vary somewhat from these figures.

<sup>&</sup>lt;sup>27</sup> Id. Combined with previously authorized funding, this results in a total program budget of \$532.375 million for the CST program.

<sup>&</sup>lt;sup>28</sup> Unlike the other programs described in the table, the geographic balancing program incentives and implementation service budget are not restricted to supporting one technology (refer to Section 3).

Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Authorizing Customer-sited Tier Program through 2015 and Resolving Geographic Balance and Other Issues Pertaining the RPS Program;" issued and effective April 2, 2010.

<sup>&</sup>lt;sup>30</sup> Id.

<sup>&</sup>lt;sup>31</sup> Id.

Table 8. Customer-Sited Tier Expected Results by Program 2010-2015

	Capacity in MW	Annual Generation in MWh
Resource Category	Encumbered by 12/31/15	Encumbered by 12/31/15
Solar Photovoltaics	82.3	93,806
Geographic Balancing	82.9	130,447
Fuel Cells	8.7	67,385
Anaerobic Digester Biogas	24.1	169,657
On-Site Wind	10.5	18,351
Solar Thermal	45.5	51,923
Program Total	254.0	531,569

# ECONOMIC AND ENVIRONMENTAL IMPACTS

In its September, 2004 Order, the Commission identified economic benefits to New York State as one of the important objectives of the RPS Program. Progress in the program through April 30, 2010 in meeting the RPS targets has yielded, and will continue to yield, significant economic benefits to the State of New York and its associated locales. Economic benefits accrue from the planning, development, construction, and operation of renewable energy facilities. These economic benefits come in the form of long and short term jobs, property tax or payment-in-lieu of tax benefits to local governments and school districts, biomass fuel purchases, as well as from lease and/or royalty payments to landowners. As was verified by the independent program evaluation contractors as part of the 2009 mid-course program evaluation, the facilities selected in the first three solicitations are expected to yield approximately \$2.1 billion dollars over the 20-year life of the facilities in direct economic benefits. When the effects induced on the broader economy are considered, the total economic benefits are estimated at more than \$4.2 billion.32

The new renewable generation capacity from the five Main Tier competitive solicitations also promises to provide environmental benefits to the State of New York. The environmental benefits of having electricity generated by the RPS facilities, as opposed to the State's "system-mix," amounts to approximately 1,490 tons of nitrogen oxides, 3,275 tons of sulfur dioxides, and 1.2 million tons of carbon dioxide per year in reduced emissions.

### PROGRAM FUNDING AND BUDGETS

NYSERDA's activities and responsibilities under the RPS are funded through quarterly payments made to NYSERDA by the major IOUs in the state; Central Hudson, Con Edison, NYS Electric and Gas, National Grid, Orange and Rockland, and Rochester Gas and Electric. These IOUs recoup the payments made to NYSERDA through a RPS surcharge on retail customers' monthly utility bills.

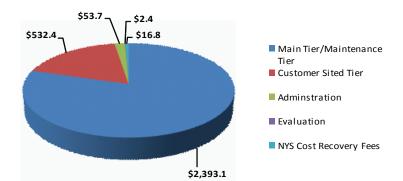
In its April 2, 2010 Order, the Commission specified a total program budget through 2024 in an amount totaling approximately \$2.998 billion.<sup>33</sup> This funding is to be used by NYSERDA for long-term contracts for Main Tier and Maintenance resources, Customer Sited Tier incentives, NYSERDA administration and program evaluation, and NYS cost recovery fees. The major categories and amounts of funding by each category are presented in Figure 5 on page 19.

The Commission's April 2, 2010 Order provides a description of program administration that lists developing and issuing Program Opportunity Notices for each

New York Main Tier, Impact and Process Evaluation, KEMA, Inc. This figure is aggregated from bid information provided by the facilities during the bid evaluation and award selection process. Contract terms require that facilities demonstrate actual investment of no less than 85% of the bid-based amount, or they will be penalized through a lowering of their contract price.

<sup>&</sup>lt;sup>33</sup> Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, "Order Authorizing Customer-sited Tier Program through 2015 and Resolving Geographic Balance and Other Issues Pertaining the RPS Program;" issued and effective April 2, 2010. Table 13. Includes interest on collections and security forfeitures from bidders in the Main Tier.

Figure 5: RPS Program Budget Through 2024 (in Millions)



technology, developing and issuing a solicitation for the Geographic Balancing component; reviewing and analyzing each application; performing project reviews to ensure proper commissioning and operation prior to issuing payments; performing measurement and verification; and performing monitoring of system performance through real-time Internet-based systems.<sup>34</sup> While this list of activities describes a considerable portion of the activities that are necessary to program administration, NYSERDA understands that the list was not intended as a limitation, as many additional tasks are routinely performed as part of program administration.

The Commission's April Order recognized the difficulty in predicting every contingency with respect to establishing a program budget that spans many years.<sup>35</sup> As is discussed in the 2010 CST Plan, the budget and

associated funding authorized by the Commission for program administration does not specifically account for necessary expenses for CST Quality Assurance/Quality Control ("QA/QC") activities, inflationary increases, accurate costs assessments under Public Authorities Law Section 2975, nor for marketing and outreach that might be necessary to deliver new or expanded programs.

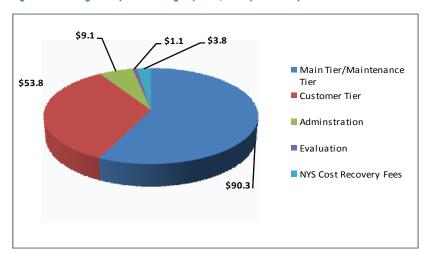
NYSERDA will manage the program within the administration budget, optimize administration of the pro-

grams to the best of its ability, and keep Staff informed of actual costs over time. In accordance with the Order, NYSERDA will bring any concerns that arise to the Commission if it appears that an adjustment to the approved budgets is warranted.

### FUNDING COMMITMENTS AND EXPENSES

As of April 30, 2010 approximately \$909.8 million, or 31.1% of the Main Tier and Customer-Sited Tier budget, is committed to current and pending contracts. This includes \$806.2 for program resource acquisition costs in the Main Tier, inclusive of Maintenance resource obligations, and \$103.7 million for the Customer Sited Tier.

Figure 6: RPS Program Expenses through April 30, 2010 (in Millions)



NYSERDA's actual expenses through April 30, 2010 have totaled \$158.2 million, or approximately 5.3% of the total RPS budget. The large majority of these expenses, \$144.2 million, have resulted from payments for Main Tier and Maintenance resource contracts as well as Customer Sited Tier incentives. Figure 6 illustrates NYSERDA's major expenses through April 30, 2010 while complete program financial data broken down by Main Tier RFP and Customer-Sited Tier technology can be found in Appendix B.

<sup>&</sup>lt;sup>34</sup> Id.

<sup>&</sup>lt;sup>35</sup> Id.

#### APPENDIX A

				New		Annual		
				Renewable	Contract	Contract	Contract	
	Resource			Capacity	Capacity	Quantity	Duration	
Facility	Туре	Location	County	(MW)	(MW)	(MWh)	(years)	Status
1st Main Tier Solicita			Cooliny	(14144)	(14144)	(1414411)	(yeurs)	Jidios
Spier Falls	Hydro	NY	Saratoga	0.80	0.80	3,582	10	operating
Higley Falls*	Hydro	NY	Saraioga	0.80	0.80	3,302	10	n/a*
Browns Falls*	Hydro	NY					1	n/a*
Maple Ridge	Wind	NY	Lewis	321.00	231.00	605,820	10	operating
Bear Creek**	Wind	PA	n/a	22.00	201.00	003,020	4	operating
Totals for RFP 916	**ilia	17.	TI/ G	343.80	231.80	609,402	7	operaning
2nd Main Tier Solicit	gtion (RFP 1	l  037)		040.00	201.00	007,402		ļ.
Niagra Generating Facility	Biomass	NY	Niagara	26.00	26.00	189,525	10	operating
Allens Falls	Hydro	NY	St. Lawrence	0.30	0.30	1,675	10	operating
Browns Falls	Hydro	NY	St. Lawrence	0.40	0.40	1,277	10	operating
Colton	Hydro	NY	St. Lawrence	0.70	0.70	4,851	10	operating
Eagle	Hydro	NY	Lewis	0.50	0.50	3,181	10	operating
East Norfolk	Hydro	NY	St. Lawrence	0.90	0.90	6,207	10	operating
Higley Falls	Hydro	NY	St. Lawrence	1.90	1.90	11,648	10	operating
Norfolk	Hydro	NY	St. Lawrence	1.50	1.50	10,154	10	operating
Norwood	Hydro	NY	St. Lawrence	0.50	0.50	4,628	10	operating
Oswego Falls	Hydro	NY	Oswego	0.60	0.60	4,049	10	operating
Raymondville	Hydro	NY	St. Lawrence	0.70	0.70	5,044	10	operating
Cohocton Wind Farm****	Wind	NY	Steuben	82.50	8.30	23,372	10	operating
Dutch Hill Wind Farm****	Wind	NY	Steuben	42.50	4.30	12,818	10	operating
Noble Altona Windpark	Wind	NY	Clinton	102.00	96.90	270,782	10	operating
Noble Bliss Windpark	Wind	NY	Wyoming	100.50	95.50	294,400	10	operating
Noble Chateaugay	Wind	NY	Franklin	104.50	101.00	201 705	10	
Windpark	vvina	INT	Franklin	106.50	101.20	321,725	10	operating
Noble Bellmont Windpark	Wind	NY	Franklin	21.00	20.00	63,438	10	in development/ construction
Noble Clinton Windpark I	Wind	NY	Clinton	100.50	95.50	303,599	10	operating
Noble Ellenburg Windpark	Wind	NY	Clinton	81.00	77.00	252,107	10	operating
Totals for RFP 1037				670.50	532.70	1,784,480		
3rd Main Tier Solicite	ation (RFP 1	168)						
AES Greenidge, LLC	Biomass	NY	Yates	4.00	3.80	28,500	3	operating
Piercefield Hydro	Hydro	NY	St. Lawrence	0.10	0.10	385	10	operating
Effley Hydro	Hydro	NY	Lewis	0.30	0.30	1,399	10	operating
Sherman Island	Hydro	NY	Saratoga	4.70	4.50	19,292	10	operating
High Falls	Hydro	Quebec	n/a	14.70	14.00	26,410	10	operating
Dutch Hill Wind Farm****	Wind	NY	Steuben		11.30	28,200	10	operating
Cohocton Wind Farm****	Wind	NY	Steuben		26.30	65,700	10	operating
Noble Wethersfield Windpark	Wind	NY	Wyoming	126.00	119.70	314,572	10	operating
Totals for RFP 1168				149.80	180.00	484,458		

		,	1				1	
				New		Annual		
				Renewable	Contract	Contract	Contract	
	Resource			Capacity	Capacity	Quantity	Duration	
Facility	Туре	Location	County	(MW)	(MW)	(MWh)	(years)	Status
4th Main Tier Solicita	tion (RFP 1	681)						
Onondaga Renewables	Biomass	NY	Onondaga	41.80	39.71	281,628	10	in development/ construction
School Street Hydro Project	Hydro	NY	Albany	5.16	4.91	21,885	10	in development/ construction
Stewarts Bridge Hydro Project	Hydro	NY	Saratoga	2.85	2.71	11,609	10	in development/ construction
Hardscrabble Wind Energy Project****	Wind	NY	Herkimer	74.00	43.66	121,508	10	in development/ construction
Totals for RFP 1681				123.81	90.99	436,630		
5th Main Tier Solicita	tion (RFP 1	851)						
NRG Dunkirk	Biomass	NY	Chautauqua	15.00	11.25	78,840	10	in development/construction
Albany Energy LLC	Biomass	NY	Albany	0.95	0.90	6,790	10	in development/construction
Black River Generation	Biomass	NY	Jefferson	41.90	39.81	297,613	10	in development/construction
Taylorville Hydro Project	Hydro	NY	Lewis	0.13	0.12	684	10	in development/ construction
Wappingers Falls Hydroelectric	Hydro	NY	Dutchess	0.12	0.11	474	10	in development/ construction
Hardscrabble Wind Energy Project****	Wind	NY	Herkimer		26.64	74,141	10	in development/ construction
Marble River Wind Farm	Wind	NY	Clinton	171.00	162.00	465,198	10	in development/ construction
Steel Winds II	Wind	NY	Erie	15.00	14.25	37,430	10	in development/ construction
Totals for RFP 1851				244.10	255.08	961,170		
Program Totals				1,532.01	1,290.57	4,276,140		
		1	•	•				
Maintenance Resource	es							
Boralex Chateaugay Biomass Plant	Biomass	NY	Franklin		20.00	128,000	10	operating
Lyonsdale Biomass***	Biomass	NY	Lewis		19.00	137,847	7	operating
Totals					39.00	265,847		

Higley and Browns Falls had 1-year agreements, thus enabling them to participate in RFP 1037.
 Only Contract quantities from RFP 1037 will be used when calculating progress toward 2015 targets.

<sup>\*\*</sup> Bear Creek windfarm had a 4-year contract that expired on January 31, 2010.

Contract quantities from RFP 1037 will be used when calculating progress toward 2015 targets.

<sup>\*\*\*</sup> Lyonsdale Biomass was authorized by the PSC to participate as a Maintenance Resource; therefore it is not included with "new renewables."

<sup>\*\*\*\*</sup> These facilities were awarded contracts for a percentage of output under multiple RFPs. The total new facility capacity is listed once.

#### APPENDIX B – RENEWABLE PORTFOLIO STANDARD

Main Tier RFP 916	<b>Budget</b> \$138,250,350	Invoiced/Spent \$55,483,781	Invoiced/ Spent as % of Budget	Outstanding Commitments (contracts and pending contracts)	Invoiced/ Spent & Outstanding Commitments	Invoiced/ Spent & Outstanding Commit- ments as % of Budget
RFP 1037	\$260,900,601	\$18,311,472	7.0%	\$242,589,129	\$260,900,601	100.0%
RFP 1168	\$73,270,739	\$5,334,876	7.3%	\$67,935,863	\$73,270,739	100.0%
RFP 1681	\$95,909,568	\$-	0.0%	\$95,909,568	\$95,909,568	100.0%
RFP 1851  Maintenance Tier (Boralex and Lyonsdale contracts)	\$203,888,455 \$33,898,656	\$- \$11,161,538	32.9%	\$203,888,455 \$22,737,118	\$203,888,455 \$33,898,656	100.0%
PJM GATS Fees (Bear Creek Contract)	\$45,510	\$45,510	100.0%	\$-	\$45,510	100.0%
Available Main Tier funding through 2024	\$1,585,539,471	\$-	0.0%	\$-	\$-	0.0%
Uncommitted Administration through 2009	\$1,417,128	\$-	0.0%	\$-	\$-	0.0%
Main Tier/ Maintenance Tier Subtotal	\$2,393,120,478	\$90,337,177	3.8%	\$681,928,046	\$806,163,879	33.7%
Customer-Sited Tie	r					
PV	\$224,623,584	\$52,033,898	23.2%	\$25,478,663	\$77,512,561	34.5%
Fuel Cells	\$23,711,920	\$12,500	0.1%	\$3,119,710	\$3,132,210	13.2%
Anaerobic Digesters	\$89,317,650	\$934,261	1.0%	\$20,249,404	\$21,183,665	23.7%
Small Wind	\$19,996,846	\$868,936	4.3%	\$949,639	\$1,818,575	9.1%
Solar Thermal	\$24,725,000	\$-	0.0%	\$-	\$-	0.0%
Geographic Balance	\$150,000,000	\$-	0.0%	\$-	\$-	0.0%
Customer-Sited Tier Subtotal	\$532,375,000	\$53,849,595	10.1%	\$49,797,416	\$103,647,011	19.5%
Program Subtotal	\$2,925,495,478	\$144,186,772	4.9%	\$731,725,462	\$909,810,890	31.1%

#### FINANCIAL STATUS REPORT AS OF APRIL 30, 2010

	Budget	Invoiced/Spent	Invoiced/ Spent as % of Budget	Outstanding Commitments (contracts and pending contracts)	Invoiced/ Spent & Outstanding Commitments	Invoiced/ Spent & Outstanding Commit- ments as % of Budget
Administration and General Administration -	Other Expenses					
staff/overhead & consultant support	\$53,679,045	\$8,072,316	17.0%	\$539,883	\$8,612,199	20.6%
CST Systems Quality Assurance/Quality Control*	\$-	\$1,072,502		\$1,365,018	\$2,437,520	
Evaluation - staff/ overhead & consultant support	\$2,432,827	\$1,103,371	45.4%	\$3,675	\$1,107,046	45.5%
NYS Cost Recovery Fee	\$16,783,325	\$3,789,541	22.6%	\$-	\$3,789,541	22.6%
Adminstration and Other Expenses Subtotal	\$72,895,197	\$14,037,730	19.3%	\$1,908,576	\$15,946,306	21.9%
TOTAL PROGRAM	\$ 2,998,390,675**	\$158,224,502	5.3%	\$733,634,038	\$925,757,196	30.9%

<sup>\*</sup> The April 2, 1010 PSC Order did not provide a specific budget for QA/QC expenses

<sup>\*\*</sup> Includes interest on collections and security forfeitures from the Main Tier

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

State of New York
David A. Paterson, Governor

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