

QUARTERLY REPORT

For the quarter ending March 31, 2002

NEW YORK ENERGY \$MARTSM PROGRAM EVALUATION AND STATUS REPORT

*Quarterly Report to the New York State
Department of Public Service*

NYSERDA



New York Energy \$martSM
QUARTERLY PROCESS AND PROGRESS UPDATE
For Quarter Ending March 31, 2002

INTRODUCTION

This report updates the status of the eight-year **New York Energy \$martSM** Program through March 31, 2002. Included in this report are updates of: budget status; recent solicitations; anticipated energy and electric peak demand savings from committed funds; and electricity and electric peak demand savings from installed measures.

BUDGET STATUS

Status of the eight-year budget (1998-2006) is shown by major funding category in Table 1. Also shown are the funds committed¹ and encumbered² as of March 31, 2002. Approximately \$372.2 million has been committed, representing 40% of the 8-year budget. Approximately \$264.4 million, or 29% of the 8-year budget, has been encumbered. Approximately \$115.6 million, or nearly 12% of the 8-year budget, has been invoiced.

Table 1: Budget Status by Program Area as of March 31, 2002 (\$ million)

| Program Area | 8-year Budget | Funds Committed (See Footnote 1) | % of 8-year Budget Committed | Funds Encumbered (See Footnote 2) | % of 8-year Budget Encumbered |
|----------------------------|----------------------|---|-------------------------------------|--|--------------------------------------|
| Business and Institutional | \$355.4 | \$187.2 | 53% | \$123.2 | 35% |
| Residential | \$166.7 | \$84.9 | 51% | \$58.1 | 35% |
| Low-Income | \$119.6 | \$19.1 | 16% | \$16.8 | 14% |
| R&D | \$210.8 | \$62.2 | 30% | \$47.6 | 23% |
| Environmental Disclosure | \$2.9 | \$0.35 | 12% | \$0.35 | 12% |
| Evaluation | \$15.3 | \$1.4 | 9% | \$1.4 | 9% |
| Administration | \$61.4 | \$17.0 | 28% | \$17.0 | 28% |
| TOTAL | \$932.1 | \$372.2 | 40% | \$264.4 | 28% |

¹ For financial incentive programs administered through NYSERDA, *e.g.*, New Construction Program, committed funds include (1) funds associated with signed or pending contracts and purchase orders, and (2) funds set aside to meet applicants' incentive requests. For projects administered by NYSERDA through a competitive solicitation, *e.g.*, Distributed Generation-Combined Heat and Power Program, committed funds represent funds awarded to contractors. For programs administered by outside contractors, *e.g.*, Direct Installation Program, committed funds represent the total amount awarded to the contractor for implementation and participant incentives.

² Encumbered funds are funds associated with signed contracts and purchase orders.

SOLICITATIONS

Table 2 provides information on Requests for Proposals (RFPs) and Program Opportunity Notices (PONs) that were open during the first quarter of 2002.

Table 2: First Quarter 2002 Solicitations

| Solicitation Number | Solicitation Name and Purpose | Solicitation Closing Date |
|--|--|---------------------------|
| Business and Institutional Program Area | | |
| PON 593-01 ³ | New Construction Program: Provide financial incentives. | 12/31/03 |
| PON 597-01 | Smart Equipment Choices Program: Provide financial incentives. | 6/30/02 |
| PON 602-01 | New York Energy \$martsm Loan Fund: Solicit lender participation and provide borrower incentives. | 6/30/02 |
| PON 624-01 | Commercial/Industrial Performance Program: Provide financial incentives. | 6/30/02 |
| PON 657-01 | Technical Assistance: Provide financial incentives. | 5/22/02 |
| PON 619-01 | Advanced Monitoring Program (AMP): Provide financial incentives for building owners and leaseholders to use advanced monitoring technology for price-response load management. | 6/30/02 |
| PON 620-01 | Peak Load Reduction Program: Seeks applications from eligible contractors to identify and implement projects which will result in reduced peak electric demand. | 8/1/02 |
| RFP 661-02 | Vendor Assistance Contractor: Hire a contractor for program implementation. | 4/23/02 |

³ Funding for this solicitation consisted of \$27 million from the Business and Institutional Program area and \$3 million from the R&D Program area for photovoltaic (PV) installations.

Table 2: First Quarter 2002 Solicitations (Continued)

| Solicitation Number | Solicitation Name and Purpose | Solicitation Closing Date |
|---|--|---------------------------|
| Residential and Low-Income Program Areas | | |
| RFP 655-01 | Photovoltaic System and ENERGY STAR® Labeled Home Demonstration Project: Seeks proposals to build ENERGY STAR® home subdivisions in each SBC utility area with a PV system installed on at least one home in each of the new subdivisions. | 1/22/02 |
| PON 614-02 | Assisted Home Performance with ENERGY STAR®: Seeks to reduce the energy burden of New York’s residents by providing a more comprehensive approach to the delivery of energy efficiency services to homeowners and renters of small homes. | 4/17/02 |
| RFP 642-01 | Rebuild New York’s Communities: North Country, Capital/Saratoga & Buffalo/Niagara Regions: Seeks proposals to determine a Rebuild Coordinator to bring energy efficiency projects into different regions of the state. | 1/24/02 |
| RFP 654-01 | Keep Cool Marketing: Seeks proposals to develop a marketing campaign for the Keep Cool Program. | 1/23/02 |
| PON 663-01 | Opportunities to Develop, Market and Disseminate Small Homes Contract Training: Seeks proposals to develop, market, and disseminate training for the Home Performance with ENERGY STAR® initiative that targets the delivery of residential energy-efficiency products and services to existing 1-4 family households. | 4/18/02 |
| RFP 664-01 | Implementation Services for Residential Comprehensive Energy Management Services Program: Seeks proposals to implement an incentive program for the purchase and installation of energy management equipment and advanced metering systems in 1-4 family homes and multifamily buildings. | 1/7/02 |
| RFP 659-01 | ENERGY STAR® Products Bulk Purchasing Program: Seeks proposals to improve the availability and promotion of energy-efficient products for multifamily building customers, builders, and community-based organizations. | 1/3/02 |
| RFP 666-01 | Consumer Initiative Program Implementation: Seeks proposals to implement the Keep Cool air conditioner bounty program. | 1/2/02 |
| RFP 670-01 | Recycling Appliances for Residential Energy Affordability Program: Seeks proposals to pick up, demanufacture and recycle appliances collected under REAP programs. | 3/26/02 |
| RFP 696-02 | Web Site Hosting Services: Hire a contractor for website hosting services. | 4/4/02 |

Table 2: First Quarter 2002 Solicitations (Continued)

| Solicitation Number | Solicitation Name and Purpose | Solicitation Closing Date |
|-----------------------------|---|---------------------------|
| R&D Program Area | | |
| PON 609-01 | Enabling Technology for Price Responsive Load: Solicit proposals to develop and demonstrate technologies that will reduce electricity load from the utility grid in response to emergency and/or price signals. | 1/9/02 |
| RFP 622-01 | Solar Schools: Hire a contractor to design and implement an educational program for K-12 schools in New York and to install PV on 50 schools. | 1/16/02 |
| PON 668-01 ⁴ | Innovation in Agriculture: Solicit projects to apply underutilized technologies to increase energy effectiveness of New York's agricultural sector. | 2/28/02 |
| PON 594-01 | Environmental Monitoring, Evaluation and Protection (EMEP): Enhanced Program Outreach and Science Policy Integration: Seeks contractors to assist in delivering program findings to policy-makers, scientists and the public. | 5/16/02 |
| PON 672-02 | New York Wind Power Plant Development Program: Requests proposals from wind power developers for installation and operation of wind power projects in New York. | 5/23/02 |
| PON 669-01 | Power Systems, Distributed Generation (DG), and Combined Heat and Power (CHP): Seeks proposals to support new product development of DG systems, components, and related power systems; and demonstration of CHP configurations in various sectors. | 3/12/02 |

PROGRESS SUMMARY

Anticipated Electricity Savings

Tables 3 through 5 show electricity and demand savings for Business and Institutional, Residential and Low-Income, and Industry and Building R&D programs. Each table shows the anticipated electric savings from funds committed and from measures installed as of March 31, 2002. For some programs, energy savings from committed funds are not available and are denoted as To Be Determined (TBD).

⁴ The funding for this solicitation consisted of \$1.25 million from the R&D Program area and \$0.5 million from the Business and Institutional Program area.

Table 3: Energy and Demand Savings from Business and Institutional Programs

| Program | Committed/Awarded | | | Installed | | |
|---|-------------------------|--------------------|--------------------|-------------------------|------------------|----------------------|
| | Funding (\$ Million) | kWh (Million) | MW | Funding (\$ Million) | kWh (Million) | MW |
| C/I Performance | \$63.8 | 433.3 | 94.2 | \$27.8 | 201.3 | 43.8 |
| New Construction | \$43.7 | 131.9 | 48.7 | \$5.9 | 3.3 | 1.2 |
| Smart Equipment Choices | \$1.2 | TBD | TBD | \$0.3 | TBD | 0.7 |
| Small Commercial Lighting | \$3.5 | TBD | TBD | \$1.9 | 0.4 | 0.09 |
| Commercial HVAC | \$1.6 | TBD | TBD | \$0.4 | 0 | 0 |
| Cooling Recommissioning | \$1.9 | 24.9 | 9.1 | \$1.2 | 24.7 | 8.6 |
| Peak Load Reduction Program | \$18.7 | n/a | 272.6 | \$8.9 | n/a | 119.4 ⁽⁴⁾ |
| Premium-Efficiency Motors | \$1.9 | TBD ⁽²⁾ | TBD ⁽²⁾ | \$1.0 | 2.4 | 0.5 |
| Technical Assistance Programs | \$18.0 | 394.0 | 104.8 | \$4.8 | 120.3 | 32.0 |
| Loan Fund (C/I and Residential) | \$3.2 ⁽³⁾ | TBD | TBD | \$2.2 | 7.3 | 2.0 |
| Business and Institutional Program | \$157.5 | 984.1 | 529.4 | \$544 | 359.7 | 208.3 |

TBD: To be determined.

n/a: Not applicable.

(1) Approximately 95% of the demand reduction is curtailable load or on-site generation capacity.

(2) Previous estimates of savings associated with committed funds were based on vendor sales performance goals. The program incentive structure has since been modified and there are no longer comparable sales performance goals on which to base a savings estimate.

(3) Includes only those loans that have been approved by NYSERDA and have encumbered dollars. Additional loan applications are currently being reviewed.

(4) The installed capacity for the Peak Load Program is lower than that reported in the previous quarter. The reduction occurred as a result of verification of measures installed.

Table 4: Energy and Demand Savings from Residential and Low-Income Programs

| Program | Committed/Awarded | | | Installed | | |
|---|-------------------------|------------------|-------------|-------------------------|------------------|-------------|
| | Funding (\$ Million) | kWh (Million) | MW | Funding (\$ Million) | kWh (Million) | MW |
| Appliance & Lighting/ENERGY STAR [®] Awareness | \$25.2 | 75.7 | 12.8 | \$21.9 | 75.7 | 12.8 |
| ENERGY STAR [®] Homes | \$5.4 | TBD | TBD | \$2.7 | 0.08 | 0.05 |
| Home Performance with Energy Star | \$6.7 | TBD | TBD | \$4.7 | 0.26 | 0.03 |
| Keep Cool | \$22.6 | 5.4 | 8.0 | \$11.4 | 5.4 | 8.0 |
| Comprehensive Energy Management | \$4.1 | TBD | TBD | \$0.61 | 0.32 | 0.09 |
| Low-Income Aggregation | \$2.6 | TBD | TBD | \$0.41 | TBD | TBD |
| Publicly Assisted Housing | \$2.6 | TBD | TBD | \$0.18 | TBD | TBD |
| Low-Income Direct Installation | \$9.3 | 13.3 | 1.4 | \$5.7 | 8.1 | 0.84 |
| Residential Programs Total | \$78.5 | 94.4 | 22.2 | \$47.6 | 89.9 | 21.8 |

TBD: To be determined.

Table 5: Energy and Demand Savings from Industry and Buildings R&D Programs

| Program | Committed/Awarded | | | Installed | | |
|--|----------------------|---------------|-------------|----------------------|---------------|-------------|
| | Funding (\$ Million) | kWh (Million) | MW | Funding (\$ Million) | kWh (Million) | MW |
| Enabling Technologies for Price Responsive Load | \$0.8 | n/a | 67.0* | \$0.8 | n/a | 67.0* |
| Distributed Generation /CHP | \$15.5 | n/a | 32.0 | \$0.0 | 0.0 | 0.0 |
| Industry and Buildings R&D Programs Total | \$16.3 | 0.0 | 99.0 | \$0.8 | 0.0 | 67.0 |

n/a: Not applicable

* Represents curtailable load and emergency generation capacity.

Table 6 provides a summary of information presented in Tables 3 through 5. Total electricity and demand savings are shown separately for energy efficiency measures and curtailable load. The anticipated electric savings from funds committed is 1,079 million kWh per year. The associated annual electricity bill savings are \$125.8 million per year.⁵ The anticipated demand savings is 629 MW, of which 325 MW is from energy efficiency measures. The electric savings from measures installed is 450 million kWh per year. The demand savings from installed measures is 283 MW, of which 117 MW is from energy efficiency measures.

Table 6: Summary of Energy and Demand Savings

| | Committed/Awarded | | Installed | |
|---|-------------------|--------------|---------------|--------------|
| | kWh (million) | MW | kWh (million) | MW |
| Energy Efficiency (Permanent) Measures | | | | |
| Business and Institutional Programs | 984.1 | 270.4 | 359.7 | 94.9 |
| Residential Programs | 94.4 | 22.2 | 89.9 | 21.8 |
| Distributed Generation / CHP | n/a | 32.0 | n/a | 0.0 |
| Energy Efficiency Measures Subtotal | 1,078.5 | 324.6 | 449.6 | 116.7 |
| Curtailable Load | | | | |
| Peak Load Program | n/a | 259.0 | n/a | 113.4 |
| Enabling Technologies Program | n/a | 67.0 | n/a | 67.0 |
| Overlap Between Programs* | n/a | -22.0 | n/a | -14.0 |
| Curtailable Load Subtotal | n/a | 304.0 | n/a | 166.4 |
| Total of Permanent Measures and Curtailable Load | 1,078.5 | 628.6 | 449.6 | 283.1 |

*The overlap represents the demand reduction achieved by customers that participated in both the Peak Load Reduction Program and the Enabling Technologies Program; therefore negative values are shown here.

Renewable Energy

⁵ Based on a Year 2000 weighted average electricity price of \$0.113.

Table 7 presents the energy generation from the renewable energy programs as of March 31, 2002. The energy and capacity is shown for two categories of outcomes: anticipated energy generation from funds committed and energy generation from equipment installed.

Table 7: Energy and Capacity from Renewable Energy Generation

| Program | Committed/Awarded | | | Installed | | |
|-----------------------------------|-------------------------|------------------|-------------|-------------------------|------------------|-------------|
| | Funding (\$ Million) | kWh (Million) | MW | Funding (\$ Million) | kWh (Million) | MW |
| Wind Plant Demonstration | \$7.0 | 103.0 | 41.5 | \$7.0 | 103.0 | 41.5 |
| PV on Buildings | \$3.0 | 0.95 | 0.70 | \$0.3 | 0.21 | 0.15 |
| Residential PV | \$1.2 | 0.40 | 0.29 | TBD | <0.0 | 0.03 |
| High-Value Wind & PV | \$1.2 | 0.77 | 0.38 | TBD | 0.01 | 0.01 |
| PV System and ENERGYSTAR®- | 0.4 | 0.033 | 0.024 | - | - | - |
| Renewable Generation Total | 12.8 | 105.1 | 42.9 | \$7.3 | 103.2 | 41.7 |

TBD: To be Determined.

Other Fuel Savings.

Several programs provide energy savings in addition to electricity savings. Anticipated natural gas and oil savings from these programs are reported in Table 8. From committed funds, the anticipated annual savings amount to 4.5 TBtu of natural gas and 1.4 TBtu of oil. The associated annual bill savings are \$43.7 million per year.⁶

Table 8: Natural Gas and Oil Savings (MMBtu)

| Program | Committed/Awarded | | Installed | |
|-----------------------------------|-------------------|------------------|------------------|----------------|
| | Natural Gas | Oil | Natural Gas | Oil |
| C/I Technical Assistance Programs | 4,500,000 | 1,400,000 | 1,200,000 | 380,000 |
| Geothermal Heat Pump Project | TBD | TBD | TBD | TBD |
| Loan Fund | TBD | TBD | 0.05 | 0 |
| ENERGY STAR® Homes | TBD | TBD | 1,883 | 1,833 |
| Home Performance ENERGY STAR® | TBD | TBD | 14,476 | 1,413 |
| Publicly Assisted Housing | 0 | 9,133 | TBD | TBD |
| Total | 4,500,000 | 1,409,133 | 1,216,359 | 383,246 |

TBD: To be Determined.

Environmental and Economic Benefits

⁶ Based on a Year 2000 weighted average natural gas price of \$7.48 per mmBtu and a weighted average oil price of \$7.12 mmBtu.

Anticipated reductions in nitrogen oxides (NO_x), sulfur dioxide (SO₂), and carbon dioxide (CO₂) emissions are presented in Table 9. Collectively, the annual CO₂ reduction is equivalent to removing nearly 180,000 automobiles from New York's roadways. The cost savings from reduced energy use (all fuels) is expected to be just over \$165 million per year, leading to the creation or retention of about 3,162 jobs in New York's service and retail trade sectors.⁷

Table 9: Anticipated Annual Emission Reductions (in tons)

| Primary Pollutant | Electricity Savings (1,113.2 million kwh) | Natural Gas Savings (4.5 Tbtu) | Oil Savings (1.4 TBtu) | Clean Generation by Wind & PV (105.1 million kWh) | All Sources* |
|-------------------|--|-----------------------------------|---------------------------|---|--------------|
| NO _x | 809 | 225 | 85 | 79 | 1,197 |
| SO ₂ | 1,629 | 0 | 162 | 159 | 1,949 |
| CO ₂ | 475,619 | 263,250 | 114,140 | 46,358 | 899,357 |

*Totals may be off due to rounding.

SUMMARY

Table 10 provides a summary of the **New York State Energy \$martSM** Program outcomes as of March 31, 2002.

Table 10: Summary of Anticipated Energy, Environmental, and Economic Outcomes as of March 31, 2002

| Outcomes | Committed/Awarded | Installed |
|--|------------------------|-----------|
| Annual Electricity Savings (million kWh) | 1,078.5 | 449.6 |
| Summer Peak Demand Reduction Potential (MW)* | 628.6 | 283.1 |
| Energy Generation from Renewable Energy (million kWh) | 105.1 | 103.2 |
| Oil and Gas Savings (tBtu) | 4.5 | 1.4 |
| Annual Energy Bill Reduction (\$ million) - all fuels ** | \$165.6 | |
| Annual Emission Reductions | NO _x (tons) | 1,197 |
| | SO ₂ (tons) | 1,949 |
| | CO ₂ (tons) | 899,357 |
| Economic Benefits | Jobs per Year | 3,162 |

* Including energy efficiency measures and curtailable load.

** Includes bill savings from electricity, oil, and natural gas.

⁷ These jobs will be supported annually for as long as the implemented energy efficiency measures remain in effect.