# MAINE STATE LEGISLATURE



# MAINE PUBLIC UTILITIES COMMISSION

# Report on Efficient Heating Pilot Programs

**Presented to the**
**Joint Standing Committee on**
**Energy, Utilities and Technology**
**January 15, 2014**

STATE OF MAINE
PUBLIC UTILITIES COMMISSION

THOMAS L. WELCH
CHA RMAN

DAVID P. LITTELL
MARK VANNOY
COMMISSIONERS

HARRY LANPHEAR
ADMINISTRATIVE DIRECTOR

January 14, 2014

Honorable John J. Cleveland, Senate Chair
Honorable Barry J. Hobbins, House Chair
Energy, Utilities and Technology Committee
100 State House Station
Augusta, Maine 04333

**Re: Report on Efficient Heating Pilot Programs**

Dear Senator Cleveland and Representative Hobbins:

During its 2012 session, the Legislature enacted An Act To Improve Efficiency Maine Trust Programs To Reduce Heating Costs and Provide Energy Efficient Heating Options for Maine Consumers. PL 2011, ch. 637. Section 11 of the Act provides that T&D utilities may develop and implement, upon approval of the Commission pilot programs within their service territories to measure the effectiveness of efficient electric heating systems. It further requires that each utility that implements a pilot program report certain information to the Commission and that the Commission analyze those reports and submit them, together with any Commission analyses, findings or recommendations to the Committee by January 15, 2014. Attached is the Commission's report for the Committee's consideration.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Thomas L. Welch, Chairman

On behalf of the Chairman and

David P. Littell, Commissioner
Mark A. Vannoy, Commissioner
Maine Public Utilities Commission

Attachment
cc: Energy, Utilities and Technology Committee Members
Jean Guzzetti, Legislative Analyst

STATE OF MAINE
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THOMAS L. WELCH
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March 31, 2014

Honorable John J. Cleveland, Senate Chair
Honorable Barry J. Hobbins, House Chair
Energy, Utilities and Technology Committee
100 State House Station
Augusta, Maine 04333

**Re: Annual Report on New Renewable Resource Portfolio Requirement**

Dear Senator Cleveland and Representative Hobbins:

During its 2007 session, the Legislature enacted an "Act to Stimulate Demand for Renewable Energy (Act), PL 2007, ch. 403 (now codified at 35-A M.R.S. § 3210(3-A)). The Act added a mandate specifying percentages of electricity that supply Maine's consumers which come from "new" renewable resources. The Act contains an annual reporting requirement, due March 31, on the status of Class I renewable resource development and compliance with the portfolio requirement. Attached is the Commission's report.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Thomas L. Welch, Chairman

On behalf of the Chairman and

David P. Littell, Commissioner
Mark A. Vannoy, Commissioner
Maine Public Utilities Commission

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cc: Energy, Utilities and Technology Committee Members
Jean Guzzetti, Legislative Analyst

## I. INTRODUCTION

During the 2012 session, the Legislature enacted An Act To Improve Efficiency Maine Trust Programs To Reduce Heating Costs and Provide Energy Efficient Heating Options for Maine Consumers ("Act").[1] Section 11 of the Act provides that transmission and distribution (T&D) utilities may develop and implement, upon approval of the Commission, pilot programs within their service territories to measure the effectiveness of efficient electric heating systems, specifically electric heat pumps or electric thermal storage (ETS) units. The Act provides that the pilot program be available to up to 500 residential or small business customers within a T&D's service territory, that the T&D utility must determine that the overall energy costs to each participating customer will decrease as a result of participation, that the utility may provide on-bill financing to participating customers, that it may offer rebates to participating customers and that it may enroll customers in the program only until December 31, 2013. However, the Act was amended in 2013 to provide that the number of efficient electric heat pumps provided to customers may exceed 500 if proposed by the utility and approved by the Commission.[2] The amendment also extended the enrollment end date for the heat pump pilot program to December 31, 2014, except that it may be extended further if proposed by the utility and approved by the Commission.

Section 11 of the Act also requires that each T&D utility that implements a pilot program shall measure and report to the Commission by November 15, 2013 on:

A. The overall reduction in energy use by participating customers;

B. The reduction in energy costs for participating customers;

C. The repayment experience of participating customers;

D. The effectiveness of the heating equipment installed under the pilot program;

E. The extent to which participating customers also took advantage of any programs offered by the Efficiency Maine Trust; and

F. The effect of the program on the electric grid, including effects during off-peak and peak times and seasons.

[1] P.L. 2011, ch. 637

[2] An Act to Reduce Energy Costs, Increase Energy Efficiency, Promote Electric System Reliability and Protect the Environment ("Omnibus Energy Bill") P.L. 2013, ch. 369, Part G.

The Act requires that the Commission analyze the reports submitted and submit the reports[3], together with any analyses, findings or recommendations of the Commission to the Energy, Utilities and Technology Committee by January 15, 2014.

## II. ELECTRIC HEAT PUMP PILOT PROGRAM AND REPORT

On July 3, 2012, Bangor Hydro Electric Company and Maine Public Service Company (together, "BHE/MPS") filed their proposal to implement an electric heat pump, on-bill financing pilot. Following an initial technical conference, data requests, and a formal settlement conference, on September 19, 2012, the Commission approved a Stipulation filed by BHE, MPS, the Efficiency Maine Trust (EMT), Environment Northeast (ENE), the Conservation Law Foundation (CLF), and the Natural Resources Council of Maine (NRCM), and thus approved BHE/MPS's proposal to implement an electric heat-pump on-bill financing pilot.[4] The electric heat pump pilot program provides both a $600 rebate for the installation of ductless mini-split electric heat pumps and an optional on-bill financing program for heat pumps installed in residential and small commercial buildings. Ductless mini-split heat pumps use electricity to transfer heat from one space to another. During winter the heat pump transfers heat into the home and during the summer it removes heat from the inside of the home.

On November 16, 2013, BHE/MPS filed an interim report (the "BHE/MPS Report") prepared by Energy Market Innovations on the Heat Pump Pilot Program as required by Section 11 of the Act. BHE/MPS indicates that its submission is an interim report and that it will present a full report at a later date to address the entire pilot program through June 2014.

The BHE/MPS Report notes that as of October 7, 2013, 945 customers had participated in the program and an additional 51 customers had applications that were approved and were pending installation. Therefore, the program is fully subscribed and is also evenly split between the BHE and MPS service territories.

[3] The Commission has provided one hard copy of the reports submitted by the utilities to the Committee. They are approximately 137 pages. The reports will also be available on the Commission's website as attachments to the report. If the Committee would like additional hard copies of the reports, the Commission will be happy to provide them.

[4] *Bangor Hydro Electric Company, Maine Public Service Company, Request for Commission Investigation Into Proposed Electric Heat Pump On-Bill Financing Pilot*, Docket No. 2012-00343, Order Approving Stipulation (September 19, 2012).

The BHE/MPS Report is based on surveying a large sample size. By June 6, 2013, when the research team working on the report began inviting participants to participate in a survey, there were 519 participants in the pilot program and 301 of those participants chose to participate in the survey. The survey included participants from both MPS and BHE service territories and included both residential and small commercial participants.

Section 11 of the Act outlined six issues the reports on the pilot programs were to address. The BHE/MPS Report is an interim report because some of the questions require winter heating data that is not yet available. Below is a summary of how BHE/MPS addressed each of the listed issues.

**A. The overall reduction in energy use by participating customers**

**B. The reduction in energy costs for participating customers**

**D. The effectiveness of the heating equipment installed under the pilot program**

Issues A, B, and D will be addressed in the June 2014 final report.

**C. The repayment experience of participating customers**

As of October 7, 2013, 142 of the 945 (installed) program participants were taking advantage of on-bill financing and reported that they were pleased with the streamlined process. The BHE/MPS Report noted that 77% percent of on-bill financing respondents said they were somewhat satisfied with on-bill financing but nobody said they were very satisfied. There was only one respondent who stated they were dissatisfied with on-bill financing, and cited the high interest rate as a reason for dissatisfaction. The report states that for many customers, the streamlined process was more important than the financial (interest rate) considerations.

The BHE/MPS Report does not provide information on the repayment experience of participants who did not use on-bill financing. The Commission would expect that this information will be provided in the June 2014 report, including the expected payback period on the heat pumps.

**E. The extent to which participating customers also took advantage of any programs offered by the Efficiency Maine Trust**

The BHE/MPS Report notes that six months following heat pump installation, 38 of the 173 Bangor Hydro pilot participants had participated in additional Efficiency Maine Trust programs. The report also noted that 12 of the 38 customers who participated in additional programs participated in more than

one and that these particular customers said the pilot program had a larger influence on their decision to participate in additional programs compared to the other customers who only participated in one additional Efficiency Maine Trust program.

### F. The effect of the program on the electric grid, including effects during off-peak and peak times and seasons

Full energy use impacts, including the heating energy use of the heat pumps, will be estimated at the completion of the pilot program period and submitted in a complete report in June 2014.

## III. ELECTRIC THERMAL STORAGE PILOT PROGRAM AND REPORT

On June 29, 2012, CMP submitted a proposal to implement a pilot program to provide rebates to customers for the purchase and installation of ETS heating systems. Following a technical conference, data requests, and a number of settlement conferences, on September 11, 2012, the Commission approved a Stipulation filed by CMP, CLF, and the Office of the Public Advocate (OPA).[5]

The ETS heaters contain electric heating elements surrounded by high density bricks. The bricks store energy during off-peak hours and release the stored heat during the day using fans controlled by thermostats. The program allows for a rebate for each participant who purchases and installs one or more ETS device, in the amount of $1,500 for installing a partial-house ETS heating system and $4,500 for installing a whole-house ETS heating system.

On November 13, 2013, CMP submitted a report (the "CMP Report") on the ETS program that was developed by The Cadmus Group. The evaluation profiles the program from its launch date on October 5, 2012, through September 20, 2013. As of September 20, 2013, 115 customers had applied to participate in the pilot. Of those 115 applicants, only 19 customers had actually installed the ETS units and received a program rebate. Of those 19 customers, only 11 had actually used the ETS units by September 20, 2013. These 11 customers are the only participants fully evaluated by Cadmus. Additionally, 13 of the 115 pilot applicants did not qualify to participate in the pilot program. The remaining 83 customers were considered "partial participants" by Cadmus. These customers had been accepted to participate, but had either chosen not to install an ETS unit or were still considering installing an ETS unit.

[5] *Central Maine Power Company, Revision to Terms and Conditions Section 52 (Electric Thermal Storage Pilot Program)*, Docket No. 2012-00325, Order Approving Stipulation (September 11, 2012).

In comparison to the participants in the survey conducted by BHE/MPS, the survey done for CMP is relatively small due to a limited amount of customers who were fully participating in the program at the time of evaluation. While the survey was limited to a small portion of participants, the CMP Report does address all six issues outlined in Section 11 of the Act.

### A. The overall reduction in energy use by participating customers

In assessing the overall reduction in energy use for participating customers, the researchers focused their analysis on the nine participants who had used their ETS units for at least three months. The CMP Report shows the estimated annual ETS kWh consumption compared to the participants' use of their previous heating system. The researchers assumed that 100% of the heat produced by the ETS unit displaces another heating fuel and that the ETS heat had not increased the household heating load. While a participant may have displaced their pre-ETS heating load with ETS heat, CMP's report provides no indication that they actually reduced their energy usage.

### B. The reduction in energy costs for participating customers

In evaluating the estimated reduction in energy costs for participants, only one participant had sufficient pre-installation and post installation data available and installed their ETS early enough in the heating season to complete an analysis of actual cost savings. This participant reported that the ETS heating system completely displaced his oil heating, resulting in a substantial net cost savings of $5,539. However, the Commission cautions that a survey comprised of a single participant has limited validity and may not be particularly illustrative of the program as a whole.

The CMP Report does estimate net cost savings for eight other participants. In estimating savings, the researchers assumed that 100% of the heat provided by the ETS unit displaced another heating fuel. This is based on participant surveys reporting that six of seven ETS users either reduced or eliminated their need for their non-ETS heating system. Two of the seven ETS users surveyed actually eliminated usage of their non-ETS heating system. Four of those surveyed reduced their usage of their non-ETS heating system. Accordingly, the estimated cost savings may be significantly overstated because they are based on the assumption that participants completely eliminated use of their previous heating fuel when the available data indicates that this assumption is incorrect.

### C. The repayment experience of participating customers

On-bill financing was not available to CMP customers and the CMP Report found that some participants took out loans but the majority used cash or credit cards to finance the installation. The payback period for participating

customers ranged from 1.7 to 13 years. Additionally, there appeared to be a wide range of electrician and installation costs, even among similar-sized units.

### D. The effectiveness of the heating equipment installed under the pilot program

Four of five participants who responded to this question said the ETS heaters made their room or home more comfortable, while one participant said their comfort level remained the same.

### E. The extent to which participating customers also took advantage of any programs offered by the Efficiency Maine Trust

The CMP Report found that several respondents had participated in Efficiency Maine Trust programs. They most frequently participated in the Appliance Rebate Program.

### F. The effect of the program on the electric grid, including effects during off-peak and peak times and seasons

Among the 11 full participants, 87% of their ETS consumption was off-peak, 8% during the shoulder, and 5% during on-peak periods. The CMP Report also notes that 90% of ETS consumption takes place between November and April, which overlaps with CMP's peak winter period. ETS consumption was lowest during the summer season, though participants with whole-house ETS use their units during the summer for hot water needs. The report notes that one benefit of ETS heaters is that they provide heating without increasing electricity demand during peak periods.

## IV. CONCLUSION

Based on the interim reports submitted by BHE/MPS and CMP, the Commission does not recommend any changes to the pilot programs and will report to the Legislature after December 31, 2014, when all pilots have concluded, unless there is an extension.

Attachment 1

## Generation Facilities Certified by the Commission as Class I New Renewable Resource

| Docket Number | Applicant | Order |
|---|---|---|
| Docket No. 2007-619 | Greenville Steam Co. (19 MW; Greenville, ME; biomass) | Order (word 44 kb) |
| Docket No. 2008-049 | PPL EnergyPlus (4.8 MW; Orono, ME; hydroelectric project) | Order (word 46 kb) |
| Docket No. 2008-078 | Town of Kittery (50 kW; Kittery, ME; wind facility) | Order (word 42 kb) |
| Docket No. 2008-105 | Loring Bioenergy (55 MW; Limestone, ME; biofuel/natural gas/diesel facility) | Order (word - 52 kb) |
| Docket No. 2008-173 | Lincoln Pulp and Paper (13.5 MW; Lincoln, ME; wood and process waste) | Order (word 67 kb) |
| Docket No. 2008-213 | Evergreen Wind Power (42 MW; Mars Hill, ME; wind facility) | Order (word 36 kb) |
| Docket No. 2008-330 | Seneca Energy II, LLC (6.4 MW; Seneca Falls, NY; landfill gas) | Order (word 40 kb) |
| Docket No. 2008-332 | Modern Innovative Energy, LLC (6.4 MW; Youngstown, NY; landfill gas) | Corrected Order (word 43 kb) |
| Docket No. 2008-333 | Innovative Energy Syst., Inc.; DANC Landfill (4.8 MW; Rodman, NY; landfill gas) | Corrected Order (word 39 kb) |
| Docket No. 2008-334 | Innovative Energy Syst., Inc.; Colonie Landfill (4.8 MW; Cohoes, NY; landfill gas) | Corrected Order (word 43 kb) |
| Docket No. 2008-336 | Indeck Energy-Alexandria, LLC (16 MW; Alexandria, NH; biomass) | Order (word 38 kb) |
| Docket No. 2008-395 | Pine Tree Landfill (3 MW; Hampden, ME; landfill gas) | Order (word 42 kb) |
| Docket No. 2008-414 | Hyland Innovative Energy Systems (4.8 MW; Angelica, NY; landfill gas) | Order (word 42 kb) |
| Docket No. 2008-432 | University System of New Hampshire (4.0 MW; Durham, NH; landfill gas) | Order (word 37 kb) |
| Docket No. 2008-466 | Evergreen Wind Power V, LLC (57 MW; Washington County, ME; wind) | Order (word 37 kb) |
| Docket No. 2008-467 | Wm Renewable Energy, LLC; High Acres 2 (6.4 MW; Fairport, NY; landfill gas) | Order (word 39kb) |
| Docket No. 2008-468 | Madison Power Industries (3.0 MW; Madison, ME; hydro) | Order (word 43 kb) |

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| Docket No. 2008-469 | Wm Renewable Energy, LLC; Mill Seat Facility (6.4 MW; Bergen, NY; landfill gas) | Order (word 39 kb) |
| Docket No. 2008-472 | Wm Renewable Energy, LLC; Chaffee Facility (4.8 MW; Chaffee, NY; landfill gas) | Order (word 38 kb) |
| Docket No. 2008-478 | Lempster Wind, LLC (Iberdrola Renewables); Lempster Wind (24 MW; Lempster, NH; wind) | Order (word 38 kb) |
| Docket No. 2008-501 | Fortistar Methane Group; MM Albany Energy, LLC (2.8 MW; Albany, NY; landfill gas) | Dismiss (mdi) |
| Docket No. 2008-516 | Innovative Energy Systems; Clinton Landfill (4.8 MW; Morrisonville, NY; landfill gas) | Order (word 42 kb) |
| Docket No. 2009-066 | Wm Renewable Energy, LLC; Fitchburg Landfill (4.8 MW; Westminster, MA; landfill gas) | Order (word 40 kb) |
| Docket No. 2009-074 | Innovative Energy Systems, Inc; Chautaugua Landfill Gas Facility (6.4 MW; Jamestown, NY; landfill gas) | Order (word 41 kb) |
| Docket No. 2009-077 | Innovative Energy Systems, Inc; Fulton Landfill Gas Facility (1.6 MW; Johnstown, NY; landfill gas) | Order (word 41 kb) |
| Docket No. 2009-093 | Wm Renewable Energy, LLC; Crossroads Landfill (3.2 MW; Norridgewock, ME; landfill gas) | Order (word 40 kb) |
| Docket No. 2009-094 | Wm Renewable Energy, LLC; Madison County Landfill (1.6 MW; Canastota, NY; landfill gas) | Order (word 40 kb) |
| Docket No. 2009-120 | Sheldon Energy, LLC; High Sheldon Wind Energy Center (112.5 MW; Sheldon, NY; wind) | Order (word 40 kb) |
| Docket No. 2009-184 | University of New Hampshire; UNH Power Plant (7.9 MW; Durham, NH; landfill gas) | Order (word 49 kb) |
| Docket No. 2009-197 | Richey Properties, LLC; (600 kW; Newburyport, MA; wind) | Order (word 46 kb) |
| Docket No. 2009-208 | Red Shield Acquisition, LLC; Old Town Fuel & Fiber (14.5 MW; Old Town, ME; biomass) | Order (pdf 124 kb) |
| Docket No. 2009-223 | Canandaigua Power Partners; Dutch Hill Wind Farm (37.5 MW; Cohocton, NY; wind) | Order (word 38 kb) |
| Docket No. 2009-224 | Canandaigua Power Partners; Cohocton Wind Farm (87.5 MW; Cohocton, NY; wind) | Order (word 38 kb) |
| Docket No. 2009-278 | FPL Energy Maine Hydro LLC, Gulf Island Project (614 kW; Lewiston/Auburn, ME; hydro) | Denied (Order word - 50 kb) |
| Docket No. 2009-279 | Beaver Ridge Wind, LLC (4.5 MW; Freedom, ME; wind facility) | Order (word 38 kb) |
| Docket No. 2009-288 | PPL Renewable Energy, LLC; PPL Colebrook LFGTE (800 kW; Colebrook, NH; landfill gas) | Order (word 38 kb) |
| Docket No. 2009-303 | Seaman Energy, LLC; Gardner Landfill (1MW; Gardner, MA; landfill gas) | Corrected Order (word 38 kb) |
| Docket No. 2009-370 | Fox Island Wind, LLC (4.5 MW; Vinalhaven, ME; wind) | Order (word 39 kb) |
| Docket No. 2009-386 | MM Lowell Energy, LLC; Westford Street Landfill (0.5 MW; Lowell, MA; landfill gas) | Order (word 40 kb) |

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| Docket No. 2009-389 | CommonWealth New Bedford Energy, LLC; Greater New Bedford Landfill Gas Utilization Facility (3.3 MW; New Bedford, MA; landfill gas) | Order (word 42 kb) |
| Docket No. 2009-395 | Sappi Fine Paper North America (50 MW; Westbrook, ME; biomass) | Order (word 55 kb) |
| Docket No. 2010-042 | Stetson Wind II, LLC (25.5 MW; T8R3, ME; wind) | Order (word 42 kb) |
| Docket No. 2010-060 | Avery Hydro LLC, (479 kW; Laconia, NH; hydro) | Order (word 38 kb) |
| Docket No. 2010-104 | Summit Hydropower, Inc. ,Wyre Wynd (2.8 MW; Jewett City, CT; hydro) | Order (word 38kb) |
| Docket No. 2010-127 | Red Shield Acquisition, LLC; Old Town Fuel & Fiber (2 MW; Old Town, ME; biomass) | Order (word 36 kb) |
| Docket No. 2010-189 | Covanta Maine, LLC; Covanta West Enfield (27.5 MW; West Enfield, ME; biomass) | Order Denying (PDF) |
| Docket No. 2010-210 | Covanta Maine, LLC; Covanta Jonesboro (27.5 MW; Jonesboro, ME; biomass) | Order (pdf) |
| Docket No. 2010-224 | Talmage Solar Engineering, Inc.; George Roberts Step Guys Precast Concrete Company Photovoltaic Array (111 kW; Alfred, ME; solar) | Order (word 37 kb) |
| Docket No. 2010-254 | Thundermist Hydro LLC, (1.2 MW; Woonsocket, RI; hydro) | Order (word 39 kb) |
| Docket No. 2011-055 | Essex Hydro Associates, Messalonskee Stream Hydro, LLC; Union Gas (1.8 MW; Waterville, ME; hydro) | Order (pdf 162kb) |
| Docket No. 2011-102 | Verso Bucksport LLC (10 MW; Bucksport, ME; biomass) | Order (pdf 2.7MB) |
| Docket No. 2011-159 | Evergreen Wind Power III, LLC ,Rollins Wind Farm (60 MW; Lincoln, ME, wind) | Order (pdf 135kb) |
| Docket No. 2011-166 | Exeter Agri-Energy (980 kW; Exeter, ME; biogas) | Order (pdf 134kb) |
| Docket No. 2011-325 | Vermont Wind, LLC ,Sheffield Wind Plant (40 MW; Sheffield, VT, wind) | Order (pdf 187kb) |
| Docket No. 2011-374 | Boralex Fort Fairfield, LP (36 MW; Fort Fairfield, ME; biomass) | Order (pdf) |
| Docket No. 2011-379 | Record Hill Wind, LLC (50.6 MW; Roxbury, ME; wind) | Order (word 39 kb) |
| Docket No. 2011-460 | Christopher M. Anthony, d/b/a Pioneer Dam, Marsh Power (400 kW; Frankfort, ME; hydro) | Denied (Order pdf - 1.8 MB) |
| Docket No. 2012-039 | Casella Waste Systems, Inc,, Southbridge Landfill (1.6 MW; Southbridge, MA, landfill gas) | Order (pdf, 875kb) |
| Docket No. 2012-081 | Mini-Watt Hydroelectric LLC (455 kW; Orange, MA; hydro) | Order (pdf, 65kb) |
| Docket No. 2012-087 | Moose River Lumber Co., Moose River (465 kW; Moose River, ME; biomass) | Order - Supp (pdf 98kb) |

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| Docket No. 2012-108 | ORPC Maine, LLC, Cobscook Bay Tidal Energy Project (900 kW; Lubec, ME; tidal) | Order (pdf, 71 kb) |
| Docket No. 2012-166 | EPICO USA Inc,, Middle Kezar Falls (150 kW; Porter and Parsonfield, ME, hydro) | Order (pdf, 1.7MB) |
| Docket No. 2012-203 | KEI (Maine) Power Management (IV) LLC, York Hydro Project (1.1 MW; Sanford and Kennebunk, ME; hydro) | Order (pdf 150 kb) |
| Docket No. 2012-231 | ReVision Energy, LLC/GWH Solar, LLC, Good Will Hinckley School (26 kW; Hinckley, ME, solar) | Order (pdf, 947kb) |
| Docket No. 2012-240 | Vermont Public Power Supply Authority, Swanton Village Electric Department, Highgate Falls (800 kW; Highgate, VT; hydro) | Order (pdf 32kb) |
| Docket No. 2012-276 | SREC Generating Co., Steuben (3.2 MW; Bath, NY, landfill gas) | Order (pdf, 872kb) |
| Docket No. 2012-282 | Irving Forest Products, Unit # 1 (720 kW; Dixfield, ME; biomass) | Order (word 45 kb) |
| Docket No. 2012-301 | Verso Androscoggin LLC (15 MW; Jay, ME; biomass) | Order (pdf, 220 kb) |
| Docket No. 2012-439 | Rumford Paper Company, C-Recovery Boiler (37 MW; Rumford, ME; biomass) | Order (pdf, 1010kb) |
| Docket No. 2012-457 | Essex Hydro Associates LLC, North Hartland (4.1MW; Hartland, VT; hydro) | Order (word 64kb) |
| Docket No. 2012-488 | Sappi Fine Paper North America (31 MW; Somerset, ME; biomass) | Order (pdf 280 kb) |
| Docket No. 2012-502 | Granite Reliable Wind (99 MW; Drummer, NH; wind) | Order (word 59kb) |
| Docket No. 2012-549 | Lewiston-Auburn Water Pollution Control Authority(460 kW; Lewiston, ME, biogas) | Order (word 54 kb) |
| Docket No. 2012-552 | Jackson Laboratories (610 kW; Bar Harbor, ME, biomass) | Order (word, 59 kb) |
| Docket No. 2012-590 | Ice House Partners, Inc. (280 kW; Ayer, MA; hydro) | Order (pdf, 86kb) |
| Docket No. 2013-00112 | Berlin Station LLC, Burgess Biopower (75 MW; Berlin, NH, biomass) | Order (word) |
| Docket No. 2013-00281 | Camelot Wind LLC (1.5 MW, Plymouth, MA; wind) | Order (word 60 kb) |
| Docket No. 2014-00009 | Innovative Energy Systems, LLC, Auburn Renewable Energy Facility (3.17 MW; Auburn, NY, landfill gas) | Order (word 53kb) |