

New England Wind Forum

A Wind Powering America Project — Newsletter #5 — January 2010

Doug Welch, Courtesy of Hull Municipal Lighting Plant/PIX11261

The New England Wind Forum Returns

We're glad to say we're back. Commencing in the third quarter of 2009, with a renewed commitment from NREL and Massachusetts Renewable Energy Trust, NEWF will resume activity with a biannual newsletter distribution and periodic policy and project updates to the Web site.

At NEWF, our goal is to develop and provide a source of thorough, current, and objective information for informed decision-making. NEWF's audience includes:

- Individuals and organizations in communities hosting existing or proposed wind projects, interested in putting a wind turbine on their property, or with a general interest in wind energy
- Federal, state, and local legislators, policymakers, and regulators
- Energy educators.

With more than 100 wind energy projects under development across New England, we believe community leaders, public officials, educators, and interested citizens need a resource like NEWF to sort through the conflicting information generated by project proponents and opponents.

Check out the NEWF Web site for recently updated information on state policies and initiatives (http://www.windpoweringamerica.gov/ne_state_activities.asp), as well as state-by-state wind project status and issue updates, a calendar of regional meetings and events, and links to Web sites. Additional features and topics may be added if state co-funding permits. The NEWF Web site (<http://www.windpoweringamerica.gov/newengland.asp>) content will be updated three times per year.

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Kathryn Craddock, Sustainable Energy Advantage, LLC/PIX16710

Two 600-kW wind turbines were installed on Deer Island in August 2009 next to the wastewater treatment facility's anaerobic digesters. Due to their proximity to Logan Airport, these generators were installed on unusually short 32-meter towers.

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Wind Projects Sprout Throughout New England

NEWF is pleased to provide you with its fifth edition of the electronic NEWF newsletter. This newsletter provides updates on a broad range of project proposals and policy initiatives across New England during the funding hiatus...consider it a "catch-up" double issue. In past newsletters, we've relied on wind farm photo-simulations, photos of early construction activity, or graphs of regional development activity to visually convey the progress of wind development activity in the region. In this issue, you will find pictures of projects sprouting throughout New England, and in the future, we'll encounter the new challenge of choosing from among more options than we can fit in one issue! In fact, the volume and distribution of wind development activity is starting to make the online

NEWF wind project maps rather crowded and increasingly difficult to read. As a result, we'll revise the NEWF wind project maps (http://www.windpoweringamerica.gov/ne_projects.asp) in the coming months to improve usability.

This issue updates our readers on the status of many of the commercial-scale wind projects that have reached or are nearing operation, as well as many others under development. It also catalogues the status of many 100-kW to 1.65-MW community-scale and customer-sited wind turbine installations throughout the region. The newsletter also summarizes key government initiatives that have taken place since the last edition: new or amended policies driving demand for wind, creating revenue stability necessary for financing, or accelerating and clarifying the process by which a favorable or unfavorable siting/permitting decision can be reached. And, as you will read in our Hot Topics section, we discuss how regional policymakers and ISO New England, the regional grid operator, are now envisioning and planning for a future in which wind power becomes a material part of the New England power supply mix.

Hot Topics

New England Governors Adopt Renewable Energy Blueprint Based on ISO-NE Wind Energy Scenario Analysis, Addressing Future Policy Direction on Regional Wind Energy Development and Related Transmission

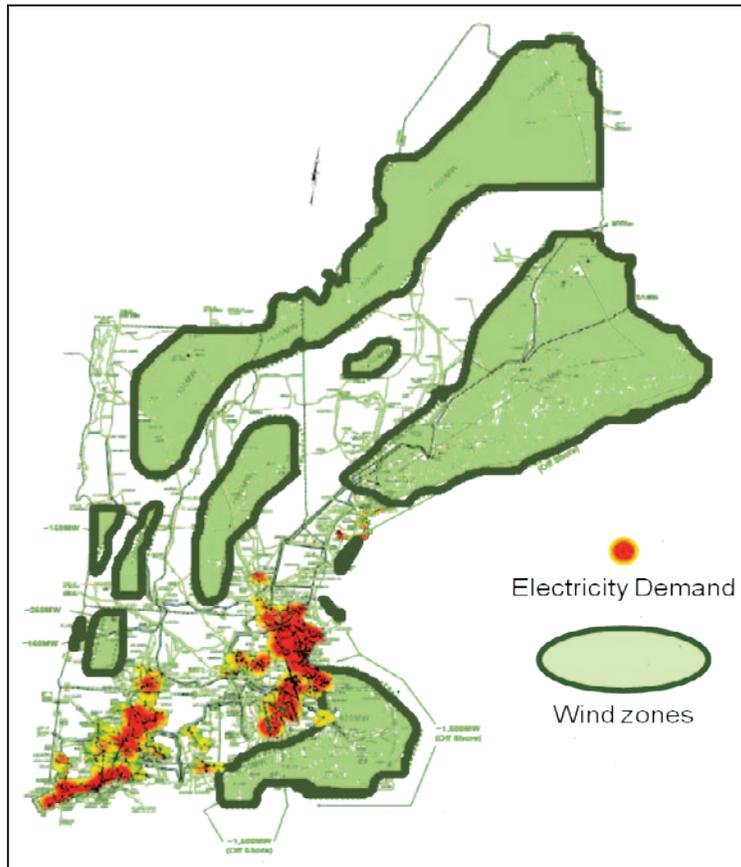
Earlier this year, the New England States Committee on Electricity (NESCOE) requested that the Independent System Operator of New England (ISO-NE) conduct a Renewable Development Scenario Analysis, or RDSA, to inform the New England Governors' and other policy-makers' decisions about the best way to accomplish their renewable energy and environmental policy objectives. The purpose of the RDSA was to help identify the significant sources of renewable energy available to New England, the means to reliably distribute them within the region's power grid, and the estimated cost of energy for generation and transmission. The RDSA considered a range of scenario analyses for wind development through 2030, considering from 2,000 MW up to 12,000 MW of wind within the region (on land and offshore) as well as imported from eastern Canadian provinces, and a range of conceptual but realistic transmission scenarios necessary to transport that wind to load. See ISO-NE Draft Economic Study Report (http://www.nescoe.com/uploads/iso_eco_study_report_draft_sept_8.pdf) (Renewable Development Scenario Analysis), September 8, 2009, and related summary presentation (http://www.raabassociates.org/Articles/Rourk_9-18-09_Roundtable.pptx).

On September 15, 2009, the New England Governors adopted the NESCOE Renewable Energy Blueprint (http://www.nescoe.com/uploads/September_Blueprint_9.14.09_for_release.pdf) (subtitled "Working to Serve New England with Low-Carbon, Secure, Cost-Effective Energy Resources")

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Please check the site regularly for updates on the projects and policies most interesting to you, and provide us with your feedback at newf@seadvantage.com. We value your suggestions.

Although it's great to be back, the current funding level is reduced from past years, while the level of wind power activity and the need for a thorough source of objective information have increased dramatically. So we'll seek additional co-funding from state government and other non-industry sources to fulfill our objectives. Stay tuned for news on our progress.



Wind Energy vs. Load Centers

(Source: Economic Study for the New England Governors: Renewable Development Scenario Analyses, Sept. 18, 2009. Presentation by Stephen Rourke, V.P. System Planning, ISO New England, at the New England Electricity Restructuring Roundtable.)

at the Annual Conference of New England Governors and Eastern Canadian Premiers in Saint John, New Brunswick. The Blueprint, based on the RDSA, is intended to provide regional input to individual state policies. The New England Governors' Resolution (<http://www.nescoe.com/uploads/>

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[NEGC_Blueprint_Resolution.pdf](#)) outlined a number of key points, including:

- “...the New England Governors authorize their regulatory and policy officials to use the Blueprint as a resource to help support development of New England’s renewable resources in their public advocacy, rulemaking, policy development and other initiatives” and
- “...the New England Governors authorize their regulatory and policy officials to review the availability of renewable resources in the region, including those identified in the Blueprint, and to consider potential mechanisms for the joint or coordinated but separate competitive procurement of renewable resources, and to report the results of such review to the Governors within the next 12 months.”

Some of the blueprint conclusions on the RDSA are summarized here:

- “There is a vast quantity of commercial-scale and advanced untapped renewable resources in the New England region; this includes more than 10,000 MW of on-shore and off-shore wind power potential. Even if developed at conservative levels, there are ample renewable resources to enable New England to meet renewable energy goals and to reduce reliance on carbon-emitting generation....”
- “All of the wind resource potential could provide downward pressure on the marginal prices for energy within the New England electricity market, ...this price pressure would ultimately benefit New England consumers.”
- “In-region development of renewables and access to renewable energy from neighboring systems appears possible with significantly less capital investment for transmission infrastructure than would be required to import an equivalent quantity of power from more remote, out-of-region sources on new, high-voltage transmission lines.”

For more info, see the NESCOE Presentation on the Blueprint (http://www.nescoe.com/Governors_Blueprint_Draft_Power_Point_9.14.09.pdf).

ISO New England Gets Serious About Wind

In addition to performing the Renewable Development Scenario Analysis, regional grid operator ISO New England recently paid attention to the current and future role of wind power in New England. Areas of focus include transmission system planning (whether to build transmission lines to support wind development, where to build them, and if so, how to pay for them) and addressing the technical challenges of integrating the substantial amounts of variable wind generation required by the region’s environmental policy initiatives into the system (as they relate to planning, operations, and markets).

ISO New England addresses transmission system planning through its Regional System Plan, or RSP process. In July, ISO New England released a draft of the 2009 Regional System

Plan (RSP09) for review by the Planning Advisory Committee (PAC). The draft RSP identified system needs and includes solutions and processes required to ensure the reliable and economic performance of the New England power system, including a number of wind-energy-related scenarios. ISO’s final RSP09 report is available at www.iso-ne.com/trans/rsp/2009/rsp09_final.pdf.

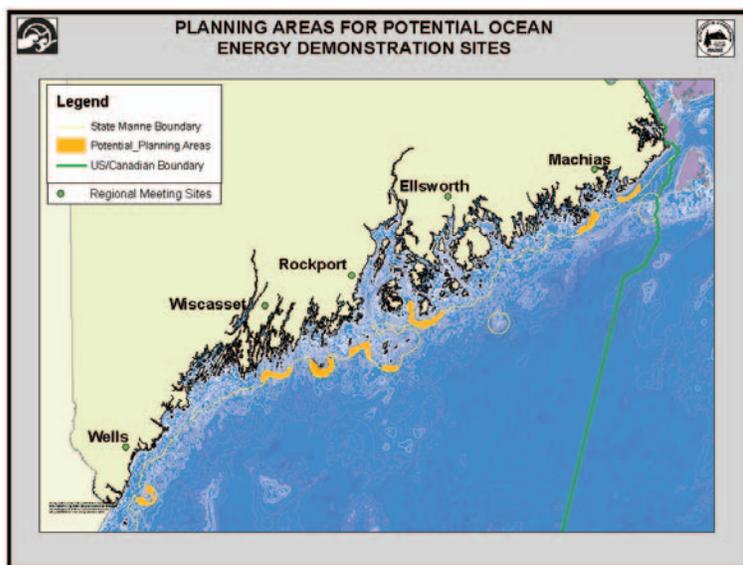
To address wind integration issues, ISO New England solicited proposals in early 2009 for a wind integration study. As a result, ISO commissioned a team comprised of General Electric, Enernex, and AWS Truewind to perform the study, with General Electric serving as the project leader. The study should be completed during the summer of 2010. A Technical Review committee was established to review the study, and the scenario assumptions posed are reviewed with the ISO’s Planning Advisory Committee (PAC). ISO New England’s objectives for this study include:

- Understanding New England-specific wind characteristics and how it will interact with load, generation, and transmission
- Determining forecast needs and techniques
- Developing operating requirements and solutions.

In August 2009, the PAC released an update on the New England Wind Integration Study (NEWIS), a comprehensive study highlighting the operation effects of large-scale wind on the ISO-NE system using statistical and simulation analysis and taking into account potential wind energy imports and future offshore wind development. An August 19 presentation (http://www.iso-ne.com/committees/comm_wkgrps/prtcpnts_comm/pac/mtris/2009/aug192009/a_newis.pdf) lists the “common scenario assumptions” and sensitivity cases, which include variations in supply- and demand-side resources, transmission availability, and wind resource. Stakeholder comments were received on this scenario framework in early September, and the analysis phase of the study is now underway. At its September 10 public Planning Advisory Committee meeting on the 2009 Regional System Plan (http://www.iso-ne.com/trans/rsp/2009/rsp09_public_meeting_slides.pdf), ISO-NE stated that the NEWIS will provide (a) information from studies performed by other organizations, technical requirements for interconnecting large amounts of wind, mesoscale wind forecasting and wind plant models, and scenario analyses that will lead to recommendations for modifying existing procedures, guidelines, and standards to reliably integrate large amounts of wind resources. The NEWIS team – which includes representatives from GE, EnerNex, and AWS Truewind, and technical reviewers from UWIG, AWEA, wind and transmission developers, wind resource experts, and independent system operators – met frequently through the first half of 2009 and expects to complete its study in the summer of 2010.

Offshore Wind Initiatives Gain Momentum

Offshore wind initiatives in New England continue to gain momentum in Rhode Island, Maine, and Massachusetts. In **Rhode Island**, the state's Office of Energy Resources selected Deepwater Wind to construct the state's first offshore wind farms. The projects are divided into two distinct phases: approximately 10 MW adjacent to Block Island to be sited in state waters and a much larger wind farm at a to-be-determined location in federal waters. It is expected that the results of a Special Area Management Plan (SAMP) permitting process will dictate where the project will be located. See the Rhode Island page (http://www.windpoweringamerica.gov/ne_astate_template.asp?stateab=ri#siting) of the NEWF Web site for more information on the SAMP.



Source: Maine Department of Conservation

The Maine Ocean Energy Task Force released interim findings (http://www.maine.gov/spo/specialprojects/OETF/Documents/OETF_InterimReport.pdf). Additionally, the Task Force meets regularly to update the offshore energy test center identification process and facilitate a dialogue focused on renewable ocean energy economics and how a small state like Maine can incentivize offshore energy development. In June 2009, the Maine Legislature passed LD 1465 directing the Department of Conservation, in consultation with the Maine State Planning Office, to select up to five locations within Maine state waters to be designated as "Ocean Energy Testing Areas." The state has identified seven offshore areas (see map) that it believes could be suitable for testing offshore wind. One site will be designated as a wind energy research center operated by the University of Maine. Private company interest will determine development on any other sites, but state officials must designate the site(s) by December 15.

The demonstration projects could test components needed to develop deep-water offshore wind projects, including floating platforms, anchoring systems, and blade composites. A private

company would enter into a 5-year lease with the state for the submerged land over which the wind station would float.

Massachusetts continues to focus significant resources on the potential siting and development of offshore wind projects. Governor Patrick signed the Oceans Act in 2008, which established a comprehensive management plan for ocean development and addressed the circumstances under which offshore wind energy development may be considered a permitted use. The Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) released the draft ocean energy plan (http://www.mass.gov/?pageID=eoeeterminal&L=3&L0=Home&L1=Ocean+%26+Coastal+Management&L2=Massachusetts+Ocean+Plan&sid=Eoeea&b=terminalcontent&f=eea_oceans_draft_mop&csid=Eoeea) at the end of June 2009. The plan identifies several offshore areas where ocean energy projects can be built within 3 miles of the coast. The plan would allow the state's six coastal regional planning authorities the option to permit the building of small offshore wind farms that are comprised of up to 10 turbines each in state coastal waters, while larger projects could be built in only two locations comprising a tiny fraction of the involved area: off Cape Cod near Cuttyhunk Island and adjacent to another island near Martha's Vineyard. The state plan aims to spare ecologically sensitive areas; therefore, developers must demonstrate that their projects will not pose an undue environmental burden on the site. While the draft plan gives refusal rights to the community in whose waters a wind farm is proposed, it does not give similar rights to adjacent communities. The draft plan is not without controversy, as in mid-September the Martha's Vineyard communities, in reaction to the plan, sought a vote to impose a moratorium on all large-scale wind power developments on the Island and in surrounding waters.



The Lempster Wind Farm in Lempster, New Hampshire.

Commercial-Scale Wind Project Update

Because of land ownership patterns, topography, population density, and alternative land uses, wind farms in New England tend to be smaller than those developed farther west, which typically include several dozen to hundreds of wind turbines installed in expansive spaces. In New England, projects range from a few to 30 turbines or more, with limited plans for larger projects either offshore or in far northern Maine. During the past year, two new commercial-scale projects came online, with several additional projects soon to follow. Also, two of the projects under development for the longest period of time came to opposite conclusions, and one turbine from New England's first demonstration-scale wind farm suffered an untimely demise.



On Target Utility Services/PIX1672

On Target utility crews run fiber optic lines at First Wind's Stetson Wind Project in Washington County, Maine.

Commercial-Scale Projects In or Nearing Operation

Iberdrola's 12-turbine, 24-MW **Lempster Wind Project**, the first commercial-scale wind project in New Hampshire, began commercial operation in November 2008. The official ribbon-cutting ceremony took place on June 19, 2009, after the completion of final site work and restoration. Public Service of New Hampshire is expected to buy 90% of the power generated from the project, with minority partner New Hampshire Electric Cooperative buying the remaining 10%.

First Wind's second wind project in Maine – the 38-turbine, 57-MW **Stetson Wind Project** in Washington County – was completed in December 2008. A ribbon-cutting on January 22, 2009, marked the official start of commercial operation for what is currently the largest operating wind project in New England. On March 4, 2009, the Maine Land Use Regulation Commission (LURC) gave final permit approval of the **Owl & Jimmey Mountain Project (a.k.a. Stetson Wind II)**, First Wind's proposed 17-turbine, 25.5-MW expansion of the Stetson Wind Project. LURC voted 5-0 to follow the staff recommendations that had endorsed the project. On July 21, 2009, First Wind closed a \$76 million, 1-year loan with HSH Nordbank for the construction of this project, which is expected to achieve commercial operation in mid 2010.

In August 2008, construction commenced at the 44-turbine, 132-MW **Kibby Mountain Wind Project**, proposed by TransCanada for Kibby and Skinner Townships in the Boundary Mountains. The first 66-MW phase (comprised of 22 3-MW turbines) is expected to reach full commercial operation by the end of 2009. The remaining 66 MW should be operational by the fall of 2010. Once operational, Kibby Mountain will become the largest wind project in New England.

In July 2009, the Berkshire Wind Power Cooperative – owners of the **Berkshire Wind Project** – selected a construction contractor for a 10-turbine, 15-MW facility in western Massachusetts. After more than a decade under development, the Cooperative expected to commission the project in early 2010. However, construction stopped in October 2009 after the Massachusetts Land Court granted an injunction in a dispute over the project's access road to a real estate developer planning to build luxury condominiums on adjacent property. Although this lawsuit was filed in 2007, the "stop work order" was not issued until October 2009. In the meantime, two of the 10 turbines were installed, and five more are under construction. As a result of this recent court order, the project's timing and ultimate completion are uncertain.

In a highly unusual event, one of 11 Zond 550-kW turbines at the Searsburg (VT) Wind Power Project – the first commercial-scale wind farm in New England commissioned in 1996 – sustained major damage in September 2008 due to severe weather associated with Hurricane Ike. The preliminary assessment, according to a spokesperson for project owner Green Mountain Power Company, is that a recently repaired blade failed, hitting the tower and causing the rotor and nacelle to fall to the ground. The unit was damaged beyond repair and removed from the site.

Commercial-Scale Projects in Active Development

In August 2009, the Maine Department of Environmental Protection (DEP) approved Independence Wind's permit application for the 22-turbine, 55-MW **Record Hill Wind Project**, proposed for Byron and Roxbury. Earlier in 2009, the Town of Roxbury voted in favor of amending zoning regulations, which allowed the project to meet zoning requirements. The project is expected to be operational in late 2010. Independence Wind, a wind project development company co-founded by former Maine Governor Angus King, is also planning the **Highland Plantation Wind Project**. A meteorological tower has been in place for more than a year, and the developer is expected to file permit applications for a 120- to 140-MW project by the end of 2009. (See the Perspectives section of this newsletter for NEWF's interview with Governor King.)

First Wind received permit approval in April 2009 on its application with the Maine DEP for its proposed 40-turbine, 60-MW **Rollins Mountain** project in the Maine towns of Lincoln, Burlington, and Lee. In August 2009, the Maine Board of Environmental Protection (BEP) agreed with the

DEP and rejected the May 2009 appeal by the Friends of Lincoln Lakes group, which had argued that the DEP ignored conflicting scientific evidence about the project's potential impacts on residents and wildlife. The project has secured local building permits, and its interconnection feasibility study is nearing completion. The project is expected to be commercially operational in late 2010. First Wind has also filed with the Maine DEP for the 34-turbine, 51-MW **Oakfield Wind Project**. The DEP process probably will extend into 2010 but would allow construction to commence by December 31, 2010 (an important condition and date for any wind project to qualify for the Federal cash grant in lieu of the Investment Tax Credit and Production Tax Credit). The project will be the first in Maine to be subject to operational guidelines that will require post-construction sound monitoring. The town is seeking implementation of a "Sound Complaint Response and Resolution Protocol" as a condition of DEP approval.

On February 6, 2009, the Vermont Supreme Court ruled that the Public Service Board (PSB) was right to issue a Certificate of Public Good (CPG) to First Wind's **Sheffield Wind Project**. The project now needs only a storm-water permit – also under appeal – prior to construction, which has now been delayed into 2010. Sheffield's CPG comes with a precedent-setting 32 conditions, which are sure to be the focus of project supporters and opponents throughout the project's construction and operation. Once operational, power from the 16-turbine, 40-MW project will be sold to three Vermont utilities.

Since 2001, the 130-turbine, 468-MW **Cape Wind Project** proposed for Nantucket Sound has been mired in the permitting process. In July 2008, the Energy Facilities Siting Board (EFSB) exercised its jurisdiction over local entities like the Cape Cod Commission to grant "all individual permits, approvals, or authorizations . . . necessary for the construction and operation" of a proposed energy facility if it is in the interest of the Commonwealth. As such, the EFSB has effectively overruled the Cape Cod Commission's previous permit denial for building transmission lines. Evidentiary proceedings for this process took place in October 2008. In December 2008, the Massachusetts Department of Environmental Protection (DEP) approved Cape Wind's Chapter 91 waterways application. The Federal Mineral Management Service (MMS) released its Final Environmental Impact Statement (FEIS) in January 2009, deeming the project environmentally sound. On May 22, 2009, the EFSB voted unanimously to grant Cape Wind the requested composite certificate of environmental impact and public interest. The acquisition of the composite certificate completes the necessary state and local permitting process for the project. The EFSB decision may be challenged in Massachusetts Supreme Court under the premise that the Board acted outside of its jurisdiction. If the decision stands, only a Record of Decision by the Federal Secretary of Interior is required before construction can begin on the 130 turbines in Nantucket Sound. However, this final approval was stalled in spring 2009 when two local Indian tribes alleged that the proposed project violates Section 106 of the National Historic

Preservation Act, which protects artifacts and areas where cultural ceremonies are practiced. In this case, the tribes assert that the turbines will impair their line of sight to the eastern sun, the unobstructed view of which is fundamental to the tribes' religious practices. In addition, the tribes state that according to their oral tradition, Horseshoe Shoal – where the foundations for the proposed turbines would be set in the ocean floor – is an ancient burial site and must not be disturbed. Core samplings to date have been unable to confirm this assertion. Once expected by year-end 2009, the date of a final Record of Decision is now uncertain. If the Department of the Interior decision is favorable, an offshore lease with terms and conditions is expected to be drafted. The last steps in the federal process involve a Section 10 permit from the Army Corps of Engineers and a new determination of no hazard from the Federal Aviation Administration. The project still faces the task of securing contracts for its production in order to secure the necessary financing to proceed.

The 20-turbine, 30-MW **Hoosac Wind Project** in Western Massachusetts remains the subject of an extended legal appeal process. In response to a DEP Wetlands appeal, in January 2009 the Massachusetts Superior Court ruled that the Massachusetts DEP was correct in issuing a wetland permit to Iberdrola's Hoosac Wind Project. The plaintiff's requests for an injunction and to have the permit remanded to DEP were denied. Subsequently, the permit has been appealed to the Massachusetts Appellate Court. The schedule for that proceeding has not yet been set, but it would likely play out in the spring of 2010. Should the Appellate Court rule in favor of the developer, the permit could still be appealed to the Massachusetts Supreme Judicial Court, which would have discretion over whether to hear the case. In August 2008, the project received a wetland permit (known as an Order of Conditions) from the Towns of Monroe and Florida related to its transmission line and interconnection. The project also received its Certificate of Public Good from the EFSB. The project is scheduled for commercial operation by the end of 2011.

The Massachusetts National Guard is exploring the development of up to 17 wind turbines within the 22,000-acre **Massachusetts Military Reservation** on Cape Cod. As one of its initial steps to determine site suitability, the Guard filed a site plan for review by the Federal Aviation Administration and Air Force Space Command. According to the Boston Globe, the project – which could produce up to 34 MW – has the support of community activists, including the Alliance to Protect Nantucket Sound. This is the first specific proposal to construct a wind farm on state land (see article below discussing wind on state lands).

The 12.5-MW **Minuteman Wind Project** submitted its Special Permit Application to the Town of Savoy, Massachusetts, on October 6, 2009. The project submitted its interconnection application to Western Massachusetts Electric Company and studies are currently underway.

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On July 15, 2009, the New Hampshire Site Evaluation Committee (NHSEC) granted a certificate of site and facility, with conditions, for Noble Environmental Power's 99-MW **Granite Reliable Power Wind Project**, under development in Coos County. The conditions in the certificate include a series of pre- and post-construction monitoring requirements, wetlands and high-elevation mitigation plans, water quality maintenance, and a detailed decommissioning plan. From start to finish, the SEC process lasted almost 1 year. The project, which calls for 33 3-MW turbines, still requires several additional permits and approvals.

On April 16, 2009, the VT Public Service Board (PSB) approved the Section 248 application for a Certificate of Public Good (CPG) for Iberdrola's **Deerfield Wind Project** (also referred to as the Searsburg expansion). As the state's "one-stop" permit, the CPG authorizes the construction and operation of the 15-turbine, 30-MW generating facility. Since the project is located within the Green Mountain National Forest, however, project developers must complete a federal NEPA analysis before the Forest Service can issue a Special Use Permit. The state's 248 Order of Conditions includes requirements to mitigate the wind farm's impact on the local black bear population. Project developer Iberdrola will conserve more than 100 acres of bear habitat elsewhere to compensate four times over the habitat that may be disrupted during the facility's construction.

After Maine's Land Use Regulation Commission denied issuing permits for two configurations of the proposed **Black Nubble Wind Project** (54 MW) in 2007 and 2008, the developer again sought to alter the project in hopes of increasing local support and successfully navigating the permitting process. Most recently, Endless Energy proposed that the town of Carrabassett Valley annex Redington Township. Annexation would have smoothed the siting process and allowed the town and area ratepayers to benefit from the wind energy produced at a reduced cost. While the town Selectmen voted unanimously for annexation and the State and Local Government committee voted in favor, the bill ultimately did not make it out of the Senate. As a result, this project may have reached its conclusion.

The Northern Maine **Aroostook County Wind Project** has increased the total potential capacity under consideration in the ISO queue from 500 MW to between 800 to 1,200 MW. Despite the increase in potential capacity, project developers Horizon Wind Energy and Linekin Bay Energy filed a letter with the Maine PUC stating that the original projected start date of 2010 is no longer applicable, and characteristics of the project remain unsettled until there is further review of a system impact study.

In Lowell, Vermont, Green Mountain Power (GMP) and the Vermont Electric Co-op are working with local resources to develop the **Kingdom Community Wind Project**. In August 2009, GMP filed for the 248J permit necessary to erect three temporary meteorological towers to measure wind speed and

direction. Various wind project developers collected resource data at this site, dating back to 2003. The proponents are preparing a series of reports on the potential environmental impact. The project will consist of 16 to 24 turbines and could represent approximately 50 MW of new capacity. Commercial operation is expected in late 2012.

New market entrant Vermont Community Wind Farm LLC has performed a series of fatal flaws analyses, entered several landowner agreements, and is currently preparing a Section 248 permit application for the up to 80-MW **Vermont Community Wind Farm** in Rutland County, Vermont. The project is proposed for the Town of Ira, but several turbines are also proposed for Poultney, Middletown Springs, Tinmouth, Clarendon, and West Rutland. According to the developer, the project plans to be operational in late 2011.

American Pro Wind LLC, a partnership of two Massachusetts-based real estate developers, recently proposed plans for the **Douglas Woods Renewable Energy Park**, a 12-turbine, 24-MW wind project surrounded by the Douglas State Forest near the intersection of Massachusetts, Connecticut, and Rhode Island. The developers have obtained a variance to erect a meteorological tower for measuring wind speed and direction. The project has not yet filed an interconnection application but is expected to do so by the end of the year.

Finally, the three-turbine, 4.5-MW **Beaver Ridge Wind Project** in Freedom, Maine began commercial operation on November 1, 2008. Competitive Energy Services and Patriot Renewables (a wind development group owned by Boston construction contractor Jay Cashman) completed the project.



A 1.5-MW turbine at Beaver Ridge Wind Project in Freedom, Maine.

Community-Scale and Customer-Sited Wind Projects Update

In addition to the 660-kW to 1.8-MW single-turbine installations becoming prevalent, the region has also experienced a recent explosion of smaller commercial-scale turbines filling the niche below the 1.5-MW machines that are used for most of the nation's wind development. New England has recently seen new turbines entering the marketplace in the 100-kW, 300-kW, and 600-kW size range, where the 1-MW to 1.5-MW turbines are too large for the load or site, or project economics or available capital dictate a smaller machine. This wave of installations, often in locations somewhat less windy than typically considered for commercial-scale development, is motivated by factors such as the customers wanting to take control of their energy costs, act in accordance with their principles, or take advantage of incentives, including new or expanded net metering policies (discussed further in the Policy Initiatives section). In contrast to the land-based, commercial-scale wind farm development activity, which has predominantly occurred in Northern New England, the community- or customer-based development is concentrated in southern New England (see maps http://www.windpoweringamerica.gov/ne_projects.asp).

New Community-Scale and Customer-Sited Projects in or Nearing Operation

Country Garden of Hyannis, Massachusetts, began operation of its 100-kW Northwind turbine in November 2008, making it the first community-scale wind turbine on Cape Cod. In August 2009, another Northwind 100-kW turbine was erected at the Falmouth (Massachusetts) **Woods Hole Research Center**. [See a video (<http://www.blip.tv/file/2443087>) of the turbine raising.] The **City of Medford** (Massachusetts) held a dedication ceremony on January 29, 2009, for its newly constructed and operational Northwind 100-kW wind turbine located at the McGlynn School complex. You can watch highlights of the dedication ceremony by following the link provided in the Cool Links section of this newsletter.



AAER Inc./PIX16716

The top section of the tower is unloaded for the new AAER turbine recently installed at a Portsmouth, Rhode Island high school.

On June 13, 2008, the **Town of Portsmouth** (Rhode Island) broke ground for the installation of a single 1.5-MW AAER wind turbine. Major wind turbine component parts were delivered to the site in January, and the 1.5-MW project achieved commercial operations in March 2009. The turbine is located at the high school and may be the first New England project to be funded by Clean Renewable Energy Bonds. Pictures are available at the project's Web site (<http://www.portsmouthrenewableenergy.com/>).

Mark Richey Woodworking in Newburyport, Massachusetts, installed a 600-kW wind turbine that began commercial operation in February 2009. **The University of Maine** recently installed a single 600-kW turbine at its Presque Isle campus, making it the first university in Maine to locate a wind turbine on campus. The turbine, installed by Lumus Construction, achieved commercial operation on June 17, 2009. **Holy Name Catholic High School** now has a fully operational 600-kW turbine on its Worcester, Massachusetts campus. **Williams' Stone Company** in East Otis also recently dedicated its 600-kW



Massachusetts Renewable Energy Trust/PIX16715

A 100-kW wind turbine at the McGlynn school complex in Medford, Massachusetts.



Massachusetts Renewable Energy Trust/PIX16717

A 600-kW wind turbine was installed at Holy Name Central Catholic Junior/Senior High School in Worcester, Massachusetts in September 2008.

turbine. In April 2009, **Nature's Classroom** installed a 100-kW turbine on its 300-acre Charlton, Massachusetts educational facility. In Chelsea, Massachusetts, a 600-kW turbine was installed at **Forbes Park**, a residential and commercial mixed-use community. After some initial difficulty, the turbine is now successfully interconnected and generating power for multiple on-site loads.

The Massachusetts Water Resources Authority (MWRA) recently installed two turbines, totaling 1.2 MW, at its **Deer Island Waste Water Treatment Facility** in Boston. The project's proximity to Boston's Logan International Airport has prompted these two 600-kW generators to be mounted on uncharacteristically short 32-meter towers (see photo on cover page).

In August 2008, the **Princeton Municipal Light Department (PMLD)** in Massachusetts broke ground for two 1.5-MW Fuhrlander wind turbines to replace the eight 40-kW machines operating on the southwest side of Mount Wachusett since 1984. Site preparations were completed during fall 2008. The turbines are expected to arrive in fall 2009, with installation completed by the end of the year. The **Massachusetts Military Reservation (MMR, or Otis Air Force Base)** will receive its 1.5-MW Fuhrlander turbine via the same shipment that is carrying PMLD's equipment. As a result, MMR also expects to have its new turbine operational by the end of 2009 (see the Cool Links section for a link to photos of turbine components in transport). The **Town of Falmouth** (Massachusetts) successfully executed a competitive bidding process for the installation of a 1.65-MW Vestas wind turbine at the town's wastewater treatment facility. The turbine is one of the two Vestas machines originally purchased by the Massachusetts Technology Collaborative (MTC) for the Town of Orleans in 2006 and is expected to be installed in Falmouth by the end of 2009. Coincidentally, the second MTC-purchased Vestas turbine is also expected to be installed in Falmouth, only a couple of miles away at Webb Research. Webb is selecting an installation contractor through a competitive bidding process.



Jason Gifford, Sustainable Energy Advantage, LLC/PIX16718

Shown here prominently displayed outside the exhibit hall at Windpower 2008 in Houston, this blade is now destined for installation on the 1.65-MW Vestas turbine to be installed at the Town of Falmouth's wastewater treatment facility.

Project updates are available from Notus Clean Energy (<http://www.notuscleanenergy.com/home.html>) (the project company established by Webb Research for development and operating purposes).

The **Town of Hanover** (Massachusetts) has also committed to the installation of an Aeronautica Norwin 225 (225-kW) turbine at the wastewater treatment facility. The project is expected to be completed in 2010. Construction of the foundation for a 100-kW turbine at **Saint Mary's Abbey** in Wrentham, Massachusetts was underway as of mid-August 2009.

Three GE 1.5-MW wind turbines under construction on Vinalhaven, Maine comprise the **Fox Islands Wind Project**. Power generated will serve island loads and be sent to the mainland grid. Turbine components arrived in late August, and the turbines were erected in September. The project came online in November. For a video clip of the turbine blades arriving, see the Cool Links section of this newsletter for a link to the project's Web site.

In Whitefield, New Hampshire, a Northwind 100-kW turbine was erected in September 2009 at the **Mountain View Grand Hotel**. The hotel expects the turbine to provide approximately one-half of its electricity needs.

Expanding on its initial plans to install a weather station and small wind turbine demonstration project at a local school, the **Templeton** (Massachusetts) **Municipal Light & Water Co.** has now completed the procurement of a 1.5-MW turbine (through a joint RFP with the Berkshire Wind Energy Cooperative) and received a \$2.16 million CREBs allocation. The municipal utility plans to install (on district school property) and own a 1.5-MW turbine by the end of 2009. The turbine will provide electricity to the municipal utility system, as opposed to connecting behind the school's meter.

Bartlett's Farm, Nantucket (Massachusetts), which hosted experimental wind turbines in the 1970s, installed a 250-kW turbine in March 2009, which is meeting approximately 80% of the onsite load. A video is available here (<http://www.plumtv.com/videos/bartletts-farm-windmill/index.html>).

At the end of July 2009, **New England Technical Institute** in Warwick, Rhode Island installed a 100-kW wind turbine that provides power to its automotive technology building and serves as a teaching tool.

Cape Cod Community College in Barnstable (Massachusetts) has broken ground on the installation of a 600-kW turbine. However, the project may require one final permission from the Old Kings Highway District Commission prior to completion.

Community-Scale and Customer-Sited Wind Projects in Active Development

Developers for the **Georgia Mountain Wind Project**, a three-to five-turbine, 7.5- to 12-MW project proposed for Milton, Vermont, completed a set of environmental studies and filed a Section 248 permit application with the Vermont Public Service Board. Project proponents are seeking permit awards in 2010 with sufficient time to commence construction by the year-end 2010 deadline and qualify for the 30% Federal cash grant.

In January 2009, the Massachusetts Renewable Energy Trust announced its most recent grant recipients under the sixth (and final) round of its Large On-Site Renewables Initiative (LORI). LORI awards grant funding for either design and construction or feasibility studies. Round 6 design and construction grant winners included four wind projects: shellfish cultivator and processor **Aquacultural Research Corporation** of Dennis (600 kW), **Ski Resort** of Charlemont (900 kW), **MBTA's Kingston Station** facility (100 kW), and **Upper Cape Regional Technical High School** in Bourne (2 MW). Round 6 feasibility study grant winners included 11 wind projects: **City of Boston: Moon Island** (100 kW to 2 MW), the **Town of Chatham** (50 kW to 225 kW), the **Town of Hamilton** (600 kW to 1.5 MW), the **Town of Mashpee** (100 kW to 2 MW), **Masonic Health System** in Charlton (1.5 MW), **Northern Pines Farm** in Tisbury (900 kW), **Pocasset Golf Club** (100 kW to 250 kW), **Pumpkin Pond Farm** in Nantucket (35 kW to 250 kW), **Saint Joseph's Abbey** in Spencer (600 kW to 2 MW), **Tufts University Veterinary School** in Grafton and Westborough (600 kW to 2 MW), and the **Town of Wareham** (1.5 MW). In July 2009, the Massachusetts Office of Energy and Environmental Affairs announced \$2.2 million allocated in grants awarded by the Massachusetts Renewable Energy Trust supporting nine new wind energy projects through the new Commonwealth Wind Community-Scale Wind initiative. Project funding included 4 MW in capacity of design and construction grants for three new wind projects and six feasibility studies for wind energy that would total more than 3 MW in capacity. The nine grants are awarded to public projects, educational institutions, a farm, and a shopping center. The three projects receiving design and construction grants are the **Town of Hanover**, for its wastewater treatment plant; the **Lynn Water and Sewer Commission**; and the Massachusetts Department of Correction, for **North Central Correction Institution-Gardner**. Awards for the six feasibility studies go to **Allen Farm**, Martha's Vineyard; **Cape Cod Academy, Osterville**; **Centerville-Osterville-Marston Mills Fire District**; **Colony Place**, Plymouth; **Falmouth Academy**, Falmouth; and **Up-Island Regional School District**, Chilmark, Aquinnah, and West Tisbury. Funds for the Trust come from renewable energy charges on electric bills, which generate roughly \$25 million a year to support renewable energy installations and companies. In addition, **Mount Wachusett Community College** is seeking proposals (in a joint solicitation with the North Central Correction Institution project noted

above) to install two commercial-scale turbines at its Gardner (Massachusetts) campus.

Two additional community-driven efforts are underway in Rhode Island. First, several developers are teaming on the **eCo Industrial Park of Rhode Island**, a carbon-neutral campus proposed for Tiverton. Proposals for the park's 650 acres include 24 to 30 MW of wind, 5 to 10 MW of solar, an electric car manufacturing facility, and a geothermal heating and cooling network. Second, in August 2009 the Rhode Island towns of Bristol, Warren, Barrington, East Providence, Portsmouth, Little Compton, Tiverton, Middletown, and Newport formed the **East Bay Energy Consortium** and issued a Request for Proposals from consulting firms qualified "to prepare an Evaluation of the Feasibility of Erecting a regional wind energy system within the East Bay of RI." A pre-feasibility study, assessing the threshold potential of multiple sites, is expected to be completed by the end of 2009, and a detailed feasibility study is anticipated by summer 2010.

State and Regional Wind Policy Updates

Policy initiatives combine with commercial interests of wind project developers or hosts to shape the development landscape, including both initiatives to encourage wind development in some locations or configurations as well as to discourage or preclude wind power development where deemed inappropriate. As can be seen from the updates below, the policy arena has been, and continues to be, active throughout the region.

Rhode Island and Massachusetts Explore Wind Development on State Lands

In the past year, Rhode Island and Massachusetts have commenced exploration of proactive wind power development on state and public lands. Among several state and municipal sites, the Rhode Island Department of Environmental Management (DEM), in conjunction with the Town of Narragansett, is exploring wind development at the Scarborough Waste Water Treatment Facility and installing a MET tower at Camp Cronin. The DEM and Town issued an RFP seeking proposals from onshore wind turbine developers that will maximize revenue from five properties. Additionally, the DEM has created several resources to further support wind development on public lands, including a Terrestrial Wind Turbine Siting Report (<http://www.dem.ri.gov/cleannrg/pdf/terrwind.pdf>), Patterns and Timing of Bird Migration as it Relates to the Placement of Wind Turbines (<http://www.dem.ri.gov/cleannrg/pdf/fwavabat.pdf>), and a Web page on Wind in the Ocean State (<http://www.dem.ri.gov/cleannrg/wind.htm>) to catalogue progress in these related activities.

The Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) and local legislators continue exploring the possibility of developing commercial-scale wind installations in some regions of the state, particularly coastal areas and ridge tops in western Massachusetts. A study of the

Renewable Energy and Energy Efficiency Potential at State-Owned Facilities (http://www.mass.gov/?pageID=eoeeamodulechunk&L=1&LO=Home&sid=Eoeea&b=terminalcontent&f=eea_energy_energy_potential&csid=Eoeea) (developed by Navigant Consulting under contract to the EOEEA and the Massachusetts Clean Energy Center) concluded that there are sufficient wind resources to develop approximately 947 MW of wind power on state lands. State officials hosted two public listening sessions on this topic over the summer. Resulting public comments that were filed by July 17 have been posted (http://www.mass.gov/?pageID=eoeaterminal&L=4&LO=Home&L1=Energy%2c+Utilities+%26+Clean+Technologies&L2=Renewable+Energy&L3=Wind&sid=Eoeea&b=terminalcontent&f=doer_renewables_wind_wind-potential&csid=Eoeea), along with the Department of Energy Resources (http://www.mass.gov/?pageID=eoeeamodulechunk&L=1&LO=Home&sid=Eoeea&b=terminalcontent&rf=eea_energy_energy_potential&csid=Eoeea) and the UMASS Wind Energy Center ([http://www.mass.gov/Eoeea/docs/doer/renewables/wind/Wind on State Lands_Listening Session_UMass WEC Presentation.pdf](http://www.mass.gov/Eoeea/docs/doer/renewables/wind/Wind%20on%20State%20Lands_Listening%20Session_UMass%20WEC%20Presentation.pdf)) presentations from the sessions.

Massachusetts Adopts Green Communities Act; Initiates Long-Term Contracting Docket

On July 2, 2008, the Massachusetts legislature passed the Green Communities Act (<http://www.mass.gov/legis/laws/seslaw08/sl080169.htm>), which among other significant renewable energy and energy efficiency initiatives (some discussed below), institutes a long-term contract pilot program for renewable energy from facilities located within the Commonwealth and state or adjacent federal waters. The Massachusetts Department of Public Utilities (DPU) is implementing the program through Docket 08-88 (<http://db.state.ma.us/dpu/qorders/frmDocketList.asp>). On June 12, 2009, the DPU issued an Order (<http://www.mass.gov/Eoeea/docs/dpu/gas/08-88/61209dpuord.pdf>) adopting final regulations (<http://www.mass.gov/Eoeea/docs/dpu/gas/08-88/61209dpucomr17.pdf>) for renewable energy long-term contracts with Massachusetts' utilities.

Under the order, the state's distribution utilities, separate from their Renewable Portfolio Standard obligations, would seek long-term contracts of 10 to 15 years with new renewable energy generators for 3% of the load of all distribution customers in their service territories. The contracts would include renewable energy credits (RECs), energy, or a combination of RECs and energy. Distribution companies must coordinate with Department of Energy Resources (DOER) in developing their timetables and methods for solicitations, and each must conduct at least two separate solicitations for long-term contract proposals from renewable energy developers between July 1, 2009 and June 30, 2014. Contracts are subject to DPU approval, and the distribution company would receive an incentive equal to 4% of the annual payments under a contract. The distribution utilities filed a Request for Proposals with the DPU in September, seeking expedited approval to commence with the first solicitation.

Rhode Island Adopts Standards for Long-Term Contracts with Renewable Energy Generators

Prior to closing the 2009 session, the Legislature passed Public Law 09-051 (<http://www.rilin.state.ri.us/PublicLaws/law09/law09051.htm>), which was signed by the Governor on June 26, 2009, to encourage and facilitate the creation of commercially reasonable long-term contracts between electric distribution companies and developers or sponsors of newly developed renewable energy resources. The law requires long-term contracting with a minimum of 90 average MW (aMW) of new renewables (e.g., MW that, when adjusted by capacity factor, would produce the same energy as 90 MW operating at 100% c.f.), of which 3 aMW must be solar located within Rhode Island. Projects cannot be operating or receiving construction financing (except that a facility in Rhode Island may obtain financing any time after 1/1/2009), and whether or not in Rhode Island, must provide other direct economic benefits to Rhode Island, such as job creation, increased property tax revenue, or similar revenue, deemed substantial by the PUC. Contracts are for a minimum period of 10 years and may exceed 15 years with PUC approval. Electric Distribution Companies are required by July 1, 2010 to annually solicit economically reasonable proposals from renewable energy developers for the purchase of energy, capacity, and attributes, subject to Commission approval. As incentive, the law provides for a financial remuneration to National Grid of 2.75% of the actual annual payments under contracts entered once the projects are commercially operating.

In addition, the law requires National Grid to solicit proposals by August 15, 2009, for one new renewable energy project up to 10 MW that includes a proposal to enhance electric reliability and environmental quality for Block Island, including a transmission link to the mainland grid. This section appears intended to provide a long-term revenue stream to a small-scale, offshore wind project in state waters near Block Island. Another portion of the law requires National Grid to provide a long-term contract with a utility-scale offshore wind developer selected by the state (this selection process already occurred, designating Deepwater Wind as the state's preferred developer) for a project of between 100 MW and 150 MW, separate from the 90-MW requirement discussed above.

The Public Utilities Commission (PUC) has opened Docket No. 4069 to develop regulations governing Long-Term Contracting Standards for renewable energy as mandated in P.L. 09-051. The Commission must have the general Rules established by April 1, 2010 and by April 30, 2010 for utility-scale projects. For more information, see the text of Law Promulgating Rulemaking (PDF 34 KB <http://www.rilin.state.ri.us/BillText09/SenateText09/S0111Aaa.pdf>) and the Rhode Island PUC docket (<http://www.ripuc.org/eventsactions/docket.html>) page (search for number 4069). More information is available on the Rhode Island policy and guidelines page (http://www.windpoweringamerica.gov/ne_astate_template.asp?stateab=ri#policy) of the NEWF Web site.

Massachusetts, Rhode Island, and Maine Expand and Enhance Net Metering Opportunities for Wind

In 2009, the Massachusetts Department of Public Utilities implemented new net metering rules (http://www.mass.gov/?pageID=eoeepressrelease&L=1&L0=Home&sid=Eoeea&b=pressrelease&f=090311_pr_net_metering&csid=Eoeea), as prescribed in Section 78 of the 2008 Green Communities Act (<http://www.mass.gov/legis/laws/seslaw08/sl080169.htm>). Previously, net metering had been limited to facilities up to 60 kW. The Green Communities Act and new regulations create three classes of net metering facilities and raises the facility cap:

- Class I: for all technologies, any facility up to 60 kW
- Class II: agricultural, wind, and solar facilities* > 60 kW and ≤ 1 MW
- Class III: agricultural, wind, and solar facilities* > 1 MW and ≤ 2 MW

* *Except that for municipal and governmental entities each unit (as opposed to each facility) within these capacity bounds qualifies.*

The rate components that may be offset differ under these different net metering classes.

The Green Communities Act also introduces virtual net metering, which allows the aggregation and off-setting of multiple loads not co-located with the renewable energy generator for projects meeting certain ownership criteria. This provision is especially relevant to wind projects since the best wind resources are often located at a distance from load. Each investor-owned utility is required to offer net metering. Municipal utilities are not required to offer net metering but may choose to do so voluntarily. The obligation to offer net metering is capped at 1% of each utility's historic peak load. Additional net metering information can be found on the MA incentives page (http://www.windpoweringamerica.gov/ne_astate_template.asp?stateab=ma) of the NEWF Web site.

In July 2009, the General Assembly amended Rhode Island's net metering statute to increase the individual and aggregate net metering limits for renewable energy systems installed by customers of National Grid. The new net metering facility limits are as follows: 3.5 MW for municipalities and Narragansett Bay Commission, 2.25 MW for certain systems serving municipalities (developed but not owned by cities and towns, sited on land owned by the city or town, and providing power solely to the city or town), and 1.65 MW for all other systems. The aggregate limit on net metering has been increased from 1% to 2% of peak load, with a minimum of 1 MW reserved for projects with a capacity less than 25 kW. In addition, the new statute allows a net metering customer to elect to receive a monthly check or a monthly bill credit for the value of any net excess generation. The statute allows non-profit affordable housing, municipalities, state agencies, and the Narragansett Bay Commission to elect a monthly

check or to apply net metering credits to up to 10 other accounts owned by that entity. If net energy generation is rolled over month-to-month, any credit remaining at the end of 12 months shall be used to offset recoverable utility costs. The PUC's implementing regulations and National Grid's net metering tariff were being finalized as this newsletter went to press. They will be posted on the PUC's Docket No. 4079 Web page (<http://www.ripuc.org/eventsactions/docket/4079page.html>). Additional information may be found on the RI incentives page (http://www.windpoweringamerica.gov/ne_astate_template.asp?stateab=ri#incentives) of the NEWF Web site.

In addition, Maine's investor-owned utilities are now required to offer net energy billing (net metering) to eligible facilities with capacity limits up to 660 kW, and consumer-owned utilities are required to offer net metering to consumer generators up to 100 kW (but are authorized to offer net metering to eligible facilities with limits up to 500 kW). In April 2009, LD 336 (PDF 9 KB http://www.mainelegislature.org/legis/bills/bills_124th/chappdfs/RESOLVE20.pdf) was signed into law, authorizing the final adoption of the rule, allowing new shared ownership net metering opportunities, increasing the general capacity limit to 660 kW, and increasing the review trigger on cumulative capacity from 0.5% of peak load to 1% of peak load. More information can be found on the Maine incentives page (http://www.windpoweringamerica.gov/ne_astate_template.asp?stateab=me#incentives) of the NEWF Web site.

Vermont Becomes First in the Nation to Adopt a Cost-Based Feed-In Tariff

In May 2009, Vermont became the first state in the nation to enact a law creating a full slate of advanced cost-based renewable energy feed-in tariffs. The Vermont Energy Act of 2009 (<http://www.leg.state.vt.us/docs/2010/bills/House/H-446.pdf>) (H. 446) modifies the Sustainable Priced Energy Enterprise Development (SPEED) Program to implement a cost-based feed-in tariff, including a reasonable profit set not lower than the highest equity rate of return of Vermont's investor-owned utilities (12.13%). The renewable energy tariffs will last for 20 years and will be differentiated by technology and project size. The actual tariff rates remain under development as this newsletter goes to press. Interim rates will be in effect through January 15, 2010, with rates thereafter subject to biennial review. Through these tariffs, the Vermont utilities purchase all energy, capacity, and Renewable Energy Credit value from participating projects (except that farm methane projects may elect to retain the Renewable Energy Credits). Eligible projects are capped at 2.2 MW, and the entire program is capped at 50 MW. Program costs are borne by all ratepayers. For current information on rates and terms, see Dockets 7523 and 7533 (http://www.state.vt.us/psb/document/7523Feed-InTariff/7523_main.htm), Implementation of Standard Offer Prices for SPEED.

Maine Establishes Community-Based Renewable Energy Pilot Program for Generators < 10 MW

On June 9, 2009, Governor Baldacci signed LD 1075, An Act to Establish the Community-based Renewable Energy Pilot Program (http://www.mainelegislature.org/legis/bills/bills_124th/chappdfs/PUBLIC329.pdf). This new law is intended to encourage locally owned renewable energy generation. Specifically, the Act offers two mutually exclusive benefits: (1) A long-term (20-year) contract for energy, capacity, or renewable energy credits from the interconnecting utility, or (2) a 150% credit multiplier on RECs used for compliance with the state's Renewable Portfolio Standard (RPS).

The PUC may require the Investor-Owned Utilities (IOUs) to enter into contracts for energy, capacity or RECs for up to 20 years; participation by consumer-owned utilities is optional. The utilities may resell the energy, capacity, or RECs into the wholesale market or otherwise incorporate them into the standard offer supply. All program costs are recoverable.

For small eligible generators (<1 MW), much like a feed-in tariff, the cost-based, technology-differentiated prices paid under the contract will be fixed by the PUC (they are not specified in the legislation). For generators 1 MW or larger, the PUC must conduct competitive solicitations for long-term contracts. Bids are required to have full project cost disclosure. The commission will select projects that are "competitive and the lowest priced when compared to other available bids of the same or similar contract duration or terms." For both small and large generators under the program, however, the average price in any contract year may not exceed 10 cents/kWh, potentially limiting the financial viability of many smaller wind projects.

As a pilot program, there are a number of limitations: an individual project may not exceed 10 MW; the total installed capacity may not exceed 50 MW, and may not exceed 25 MW within the service territory of a single investor-owned utility (unless approved by the PUC); of this 50 MW, 10 MW must be reserved for projects smaller than 100 kW or that are located in the service territory of a consumer-owned utility; no more than 10 MW may elect the credit multiplier option; and the program sunsets on December 31, 2015 if the 50-MW cap has not yet been reached. To be eligible for the program, community-based projects must: (a) provide documented support from the applicable municipality or federally recognized Indian tribe (except for projects in unorganized areas or those < 100 kW); (b) be grid-connected; and (c) have an in-service date after September 1, 2009.

Massachusetts Updates Model Wind Turbine Zoning Bylaw

The Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) and DOER have completed an update to the model wind-zoning bylaw, which was first released in 2007. The wind-zoning bylaw, which applies to utility-scale, on-site wind facilities and small wind energy

systems, includes building integrated wind systems and physical modifications to existing wind facilities that materially alter the type, configuration, or size of such facilities or other equipment. The bylaw was prepared to assist cities and towns in establishing reasonable standards for wind power development. The bylaw was developed as a model and not intended for adoption without specific review by municipal counsel. See the Massachusetts page (http://www.windpoweringamerica.gov/ne_astate_template.asp?stateab=ma#siting) of the NEWF Web site for more information on the revised model wind bylaw.

Wind Energy Siting Bill Filed in Massachusetts Senate

On January 13, 2009, Massachusetts Senator Michael Morrissey filed a discussion draft Wind Energy Siting Bill. This bill was a response to a state-commissioned wind energy siting study under the Green Communities Act, which determined that (1) wind energy developers want clear siting standards; (2) Massachusetts currently has a system that requires multiple permits from multiple entities with little opportunity to appeal; and (3) Massachusetts only has "one-stop" permitting for facilities larger than 100 MW.

The bill as proposed would authorize the energy facilities siting board (EFSB) to promulgate permissive siting standards for wind farms of 2 MW or larger. In an effort to streamline the permitting process, this provision gives "as of right" permitting at the state level, and "as of right" override of any local denial. The proposed process is non-adjudicatory and includes public hearings and a written comment period. For facilities that comply with the siting standards, the board would issue a decision within 4 months of the application, and the approval must be granted if the board agrees that the facility complies with the standards. For facilities that do not comply, the approval would be discretionary. At the local level, the bill would establish a streamlined permitting process for wind energy facilities. Municipalities in high wind areas designated by DOER must create a wind energy permitting board comprised of representatives of the conservation commission, planning board, and zoning board. This board would receive comments from the public and other local boards and issue one composite permit that includes local law and regulation. The board would have the authority to waive any local requirements needed to permit the facility, including height limits in local zoning bylaws. For applications that meet the siting standards, the local board must act within 120 days or the application is automatically approved. For noncompliant applications, the board must act in 180 days. Municipalities would be authorized to impose an impact fee, to be capped by DOER. The bill would also allow any aggrieved persons to appeal a board's decision, but the appeal is to the EFSB and this is the sole method of review. However, existing law would also allow an appeal of a siting board decision to the Supreme Judicial Court. This bill has met with resistance from municipalities, and debate continues as this issue goes to press. See the Massachusetts page (<http://www.windpoweringamerica.gov>).

gov/ne_astate_template.asp?stateab=ma#siting) of the NEWF Web site for more information.

Massachusetts Increases State Renewable Portfolio Standard Targets

In 2008, under Section 32 of the Green Communities Act (<http://www.mass.gov/legis/laws/seslaw08/sl080169.htm>), the legislature made several important revisions to the Renewable Portfolio Standard. The revised Renewable Portfolio Standard regulations went into effect on June 12, 2009. Key revisions to the Renewable Portfolio Standard driving the demand for wind power include codifying annual Class I (new) Renewable Portfolio Standard target increases of 1% per year beginning in 2010, removing Massachusetts Department of Energy Resources' discretion over such increases. More information is available on the Massachusetts policy and guidelines page (http://www.windpoweringamerica.gov/ne_astate_template.asp?stateab=ma#policy) of the NEWF Web site.

Maine Engages in Dialogue on Transmission System Enhancements

Much of the wind power potential in Maine is located either far from transmission facilities or in locations isolated from or constrained in access to load centers. Therefore, the potential for expanding the transmission system is critical to the future of wind in Maine.

At the end of the 2009 session, the legislature passed LD 1485 (http://www.mainelegislature.org/legis/bills/bills_124th/chappdfs/PUBLIC372.pdf), An Act Regarding Maine's Energy Future, which placed a moratorium on any significant new transmission line development. Specifically, the new law places a moratorium on "significant occupancy agreements" for new transmission facilities, defined as lines of greater than 75 miles in length, including high-voltage DC transmission lines, or any agreement substantially different from previous occupancy agreements entered into by a state authority. The moratorium would remain in place until repealed by enactment of a new law governing the use of these corridors, or until 90 days after the end of the 2010 legislative session, whichever occurs first. Nevertheless, the law allows applications for such transmission facilities to be processed by a state authority up to, but not including, a final decision on the application. To address the issues driving the moratorium, the legislature also establishes a 13-member Commission to Study Energy Infrastructure. Its charge is to examine the feasibility and effects of the state leasing state-owned lands or assets, including submerged lands, for transmission lines, pipelines, and related facilities for carrying energy resources. The commission will recommend how to allocate the best use of these assets and how to price them, as well as "the potential effect of such agreements on renewable energy development in the State." The commission must submit its findings and recommendations, including suggested legislation, to the legislature no later than December 2, 2009.

New Hampshire's North Country Transmission Commission Extended, Duties Expanded

The New Hampshire Legislature, ISO-New England, and interested stakeholders have established the "Commission to Develop a Plan for the Expansion of Transmission Capacity in the North Country." The commission is developing a plan for possible paths to efficiently and effectively design and construct the transmission capacity necessary to facilitate renewable energy development. The ISO-New England interconnection queue currently includes requests for interconnection from approximately 400 MW of renewable generating capacity proposed for northern New Hampshire. To interconnect substantial additional renewable generation resources into this 115-kV transmission system or to interconnect these resources to remote higher-capacity transmission substations will require upgrades to existing PSNH and National Grid facilities or the construction of new transmission lines. The extent of the system reinforcements depends on the amount and location of the proposed generation. The New Hampshire Public Utilities Commission Background Report on New Hampshire Transmission Infrastructure, completed for the New Hampshire General Court in 2007, describes four options for upgrading facilities that would support 400 to 500 MW of new generation. The options vary in cost between \$160 million and \$210 million and would have different implications for where new resources could interconnect. The commission releases a periodic progress report to address current developments.

In the summer of 2009, the legislature passed SB 85, tasking the Commission to "seek and obtain federal funds to upgrade the 115-kilovolt transmission loop in Coos County and to establish an appropriate method for sharing costs and benefits of such an upgrade between ratepayers and the owners of generation facilities in order to develop renewable resources in northern New Hampshire." If federal funds are available, the commission is authorized to retain a consultant and develop a plan to upgrade the Coos loop. In creating such a plan, the commission's consultant will work with renewable energy developers that have active interconnection requests, electric utilities, the consumer advocate, and the PUC. Community benefits" are to be explicitly addressed as part of the plan. An Interim Plan is due December 1, 2009; a Final Plan is due December 1, 2010.

For more information, see the New Hampshire Transmission, Interconnection, and System Integration page of the NEWF Web Site (http://www.windpoweringamerica.gov/ne_astate_template.asp?stateab=nh#transmission).

Federal Policy Initiatives

Federal Stimulus Package Expected to Spur Renewable Energy Financings

The 2009 American Reinvestment and Recovery Act (ARRA) not only extended the Federal production tax credit (PTC) through December 31, 2012 for wind projects but also created two time-limited options for capturing the PTC's intended benefits through alternative mechanisms. First, the ARRA offers wind project owners the option to elect the investment tax credit (ITC) in lieu of the PTC. The ITC is equal to 30% of the project's depreciable capital expenses (typically up to 95% of a wind project's total installed cost), can be fully applied against the project owner's federal income tax liability in the first quarter of project operation, and is not production-dependent. Second, the ARRA also offers the option to elect a Section 1603 cash grant in lieu of the ITC. Like the ITC, the cash grant is equal to 30% of eligible capital costs and is disbursed to the project 60 days after the Treasury Department deems the grant application complete or 60 days after commercial operation, whichever is later. The option to elect the ITC is currently available through the PTC expiration date (12/31/2012); whereas the Section 1603 cash grant option is currently available only to those projects that enter construction by December 31, 2010 and are operational by December 31, 2012. Both ITC and the cash grant are subject to recapture (i.e., a portion of the credit is lost) if the owner receiving these benefits sells its share of the project within the first 5 years to an entity that is not eligible for the grant.

The ARRA also creates a new \$6 billion loan guarantee program (\$4 billion for renewable energy and \$2 billion for transmission). Loan guarantees are available to projects that commence construction by September 30, 2011. Under existing regulations, the U.S. Department of Energy may guarantee up to 100% of a loan, provided that the loan is issued by the Treasury Department's Federal Financing Bank. Loans from private lenders can also be guaranteed, provided that the guarantee is for less than 100% of the loan amount. In the competitive evaluation process, greater weight will likely be given to applications that rely on a smaller guarantee percentage.

In 2008, the Energy Improvement and Extension Act allocated \$800 million to the new Clean Renewable Energy Bonds (CREBs) program. The ARRA further expanded the CREBs program with an additional \$1.6 billion allocation — bringing the total available funding to \$2.4 billion for new awards. Funding will be awarded evenly to public power, government bodies, and cooperatives (one-third each). Under the new CREBs program, the bond maturity period is expected to be between 12 and 13 years (as opposed to the 15- to 16-year period under the 2006 program). In another significant departure from the old CREBs program rules, the bond beneficiary can elect to repay in one lump sum at the bond's maturity date, as opposed to equal annual principal payments. If this repayment option is elected, the project will likely be required

to feed a reserve account to ensure repayment. Like the old program, qualifying CREBs applications are awarded funds from smallest to largest dollar request until the IRS's funding allocation is exhausted. Due to the large number of requests in earlier rounds, applicants participating in the current round are encouraged to use CREBs as a financing supplement, as opposed to 100% — or even a majority — of project debt.

Perspectives

An interview with Angus King, Former Governor of Maine and Co-Founder of Independence Wind

Date: 12/13/2009

Angus King, former governor of Maine (1995-2003, Independent), has taken the unusual step of becoming a wind power developer after completing his terms in office. Drawing on his diverse past (lawyer, U.S. Senate staffer, hydroelectric and biomass power plant developer, energy efficiency entrepreneur, PBS radio and TV commentator, and teacher), Governor King co-founded a wind development company in early 2007. Independence Wind was formed with Robert Gardiner, a former director of Maine's Bureau of Public Lands and former Maine Advocacy Center Director for the Conservation Law Foundation.

Independence Wind is actively working on developing a commercial wind farm in Western Maine.

Q. As Maine's governor, what was your perspective on the role of wind power in Maine?

A. When I was governor, there was virtually no commercial-scale wind development in Maine, only residential-scale. As governor, I had an interest in Maine's energy situation and our need for more energy options. My interest in wind as a serious energy resource started in the 1970s when I first read of it in the Whole Earth Catalog. On a professional level, my interest in wind began only last year.

As governor, I supported the development of natural gas pipelines through Maine, which provided an additional energy resource. I came out of the alternative energy field, and I was concerned about the long-term cost of energy and long-term price stability and felt that increasing our supply options made a lot of sense. Historically, Maine got energy from hydro, nuclear, and some fossil fuel resources. The nuclear plant is now closed, which makes Maine unhealthily dependent on natural gas for about 60% of our electricity... we're vulnerable on supply and price. Aside from hydro, wind is the only renewable resource for which you can offer a fixed price.

Q. You have a background in both renewable energy and energy efficiency. As part of a broad energy policy, what do you see as the relative roles of these alternatives?

A. The older I get, the more I realize that there is no single solution—most problems need to be solved through a combination of solutions. Clearly, conservation and efficiency have

important roles. In the early 1990s, I spent 5 years in the energy efficiency business and saw that there is much we can do to use less energy. I also realized that there is a finite limit in terms of what is feasible, what makes sense. For example, once you retrofit lighting, you can't easily go back and do it over and again. So, while there is clearly a continuing role for energy efficiency, it is only part of the answer. And even with it, we will probably still see a growing demand. Therefore, we must talk about energy supply.

In terms of economics, energy security, and the environment, we need to talk about non-fossil-fuel-based supply: wind, hydro, or nuclear. At this point, there are no plans for new nuclear power plants in Maine, leaving wind and hydro on the table. Having been in the hydro business, I know that there is very limited untapped hydro potential in Maine. That leaves wind. Wind can never become 100% of our energy supply unless better energy storage technology is developed, but it can certainly be 10% to 20% of the mix if we have baseload plants to fill in the gaps. It is significant that the high wind periods in Maine are in the wintertime, coinciding with high demand for fossil fuels and electricity. Until a few years ago, Maine's utilities were winter-peaking, and even now, there is still heavy demand in the winter, so wind is a nice fit for Maine. I don't see wind energy as a panacea, but I do see it as a significant part of the solution with tremendous environmental benefits.

Q. Looking ahead 10 to 15 years, how much wind power do you expect to see in Maine?

A. Maine has a total average demand of about 2,200 megawatts (MW). For wind to contribute a 10% share in the near term — at a 35% capacity factor, that's 300 to 600 MW of capacity — is not unreasonable. Another big issue is the technology of offshore wind. The geography of Maine's coast makes offshore wind a challenge, but if and when technology is developed for deeper-water offshore wind, there is huge potential. Offshore wind in Maine could generate thousands of megawatts.

Q. Do you see an opportunity for an increased number of jobs in Maine connected with wind?

A. There are three levels of jobs connected to the wind industry. The number of construction jobs associated with wind development is not inconsiderable. Between riggers, bulldozer operators, etc., I have seen estimates of six jobs per tower. There will also be operations and maintenance jobs. These will be fewer, probably one job per 20 MW. Most important, increasing wind development could stabilize electricity rates, especially in an area where most of the power comes from fossil fuels. This would provide a long-term advantage for economic development and create sustained job growth.

In the beginning of the natural gas boom, I met with the New England Governors on the subject of electricity generation. I remember voicing concerns about going from no natural gas to being over-dependent. It's both a security and a price risk. I was recently in Singapore, which gets all of its drinking water

from Malaysia via a pipeline. Some years ago, they recognized that this wasn't a good idea and invested in desalination and reverse-osmosis plants, and now they're virtually water-independent. We need to do the same and have alternative options to a costly and volatile fuel source.

Q. We've seen that any electricity generation project will have some undesirable impacts. How do you view wind power's impacts within a larger context?

A. The only real impact I have discerned is visual impact. When I visited the Mars Hill site, they experienced narrowly defined issues with noise. But you can avoid noise issues by siting a project a sufficient distance away from houses and the residents. At Mars Hill, for example, there are a few houses that are particularly close and downwind that appear to have sound issues, but in general, noise impacts from wind generation can be managed. There can be noise problems if you're too close, but they drop off rapidly as the distance increases; it's all about the setbacks. Studies regarding bird impacts conducted around the country show that wind power has a modest effect on birds and that their impact on birds is less serious than we initially thought. So a tolerance for changes in people's views is the primary issue with wind. I have met an amazing number of people who have traveled, seen lots of windmills, and think they are beautiful. It is clearly a subjective judgment.

If visual impacts are the worst thing we have to deal with in order to make a dent in climate change and fossil-fuel dependency, we need to realize that it could be a lot worse. I used to work on biomass development, but with biomass, you are still burning something. You need a tall smokestack. Your trucks transporting your fuel are emitting CO₂. Wind has a very short list of negatives compared to other alternatives.

Q. What inspired you to go into wind development after leaving office?

A. My friend Rob Gardiner and I had been talking about going into wind development for more than a year. There are three main reasons. First of all, it is an interesting business opportunity that will hopefully be profitable. I enjoy business, and energy is a business that I know. Second, this endeavor has important long-term benefits for Maine in stabilizing electricity prices and decreasing the state's dependence on volatile fossil fuel supplies and prices. Last, I like the idea of trying to DO something about climate change. This is an opportunity to try to solve, rather than just talk about solving, problems. My feeling about Maine is that we have to take advantage of the assets that we have. There are a lot of things we don't have, but we do have wind, we have the Gulf of Maine, water supply, and forests. We need to play with the hand we were dealt, work with the assets that we have, and Maine has the most wind potential in New England.

Q. How has the transition from governor to wind developer gone so far? How does being ex-governor help or hinder your efforts?

A. I was already 4 years out of office before starting Independence Wind, and I never dreamed of having anything to do with wind during my time as governor. The precipitating factor was when I went to Sugarloaf in the summer of 2006 to testify in favor of the Redington/Black Nubble project. I went as a citizen and was frustrated. Here was an opportunity to do something about climate change, but the big picture wasn't getting across. After that, I spoke with Rob Gardiner and said, "Maybe there's something we can do." We started surveying sites and found a very good one. I tried to bear in mind the environmental objections at Redington and other sites and pre-selected sites that would hopefully minimize such problems.

We've tried to be sensitive and have met with selectmen, towns, and residents. I'm not sure if that will help or hinder the process, but my guess is that it's a curiosity to have the former governor talking about local issues. Hopefully some people in the town will think that I was a good governor and be supportive, but others might think the opposite.

Q. What do you hope to accomplish as a wind developer?

A. I would like to be associated with the development of substantial projects in Maine and make a dent in Maine's energy demand and climate impact. The bottom line is that we need to DO something about climate change instead of just talking about it. The things we need to do will require change, and change is always difficult. We need to get used to seeing windmills where we used to see ridgelines, we need to drive less and conserve more. We can't deal with a global issue by doing the same as we've always done.

Q. How did you choose the name Independence Wind? Do you see wind as a key to Maine's energy independence, or do you see Maine as a wind exporter?

A. The name was Rob's idea, and it has a nice connotation of independence from fossil fuels. It is possible that Maine could be a wind exporter. In the energy business, electrons will go where they will. We will see Maine exporting on windy days and importing on a hot summer day. If Maine develops offshore wind in a major way 15 years in the future, then it could be a major source for all of New England because of the enormous magnitude of potential.

Q. What do you see as your biggest risks and challenges to Independence Wind's success?

A. The two biggest risks are the current low natural gas prices and the permitting process. Gas prices—which determine marginal electricity prices in New England—are one-third of what they were just 16 months ago and make it very difficult for any capital-intensive source like wind or hydro to compete in the short run. In the longer run—anything over 5 years—I'm still confident that wind can and will be an important part of the regional energy mix. The time will come—sooner rather

than later in my view—when we'll be very happy that we have zero-fuel-cost sources available. On the permitting side, local opponents are getting more organized and aggressive and are driving up the cost and time involved in getting final permits. The problem, of course, is that the benefits of wind power are broadly distributed while the impacts are local. But the majority of the residents in the town hosting our first project has voted twice in our favor, so we've made some progress in demonstrating local as well as statewide benefits.

Small Wind Corner

While large-scale wind generation dominates the recent news, a considerable amount of activity is underway at the other end of the scale. In all New England states, small-scale wind turbines are supported by incentives including net metering (recent changes discussed earlier in this newsletter) and targeted incentive programs offered by the Connecticut Clean Energy Fund, Massachusetts Renewable Energy Trust (through its recently launched Commonwealth Wind: Micro Wind Initiative), the New Hampshire PUC's Sustainable Energy Division (through its recently adopted Residential Renewable Energy Generation Incentive Program), Vermont Department of Public Service's Clean Energy Development Fund (as well as the pending Feed-in Tariff; see article above), Efficiency Maine's Solar and Wind Rebate Program, and the Rhode Island Economic Development Corporation's Renewable Energy Fund programs.

In 2008, Boston's **Logan International Airport** began installing its first in a series of 20 wind turbines on the roof of its offices. Each turbine is 10 feet tall and, according to manufacturer Aerovironment, in aggregate are expected to generate 60,000 kWh per year. Such production levels, if realized, would represent a dramatic increase from the historic production of other similarly sized machines. Massachusetts Port Authority, the organization that operates the airport, may consider installing more turbines around the airport depending on the performance of the current installation.

In the summer of 2009, less than a year after installing a 50-kW wind turbine on top of a hill at the **Kittery (Maine) Waste Transfer Station**, town officials have decided to remove the installation due to poor performance. Real-time data collected over an 8-month period showed production to be only 15% of original estimates. Ground clutter causing wind turbulence is credited for the poor performance. The town aims to sell the turbine back to the manufacturer, Entegri Wind Systems. The manufacturer has agreed to refund the town the entire cost of the project and plans to relocate the turbine and tower to a Midwest location sometime in early 2010.

Also in the summer of 2009, the **Boston Museum of Science** announced that it is building a wind turbine laboratory on its roof. The lab will be the first of its kind to be constructed on a museum roof in the nation. The lab, propelled by the green initiative at the museum, will demonstrate that small wind

turbines can be installed on small commercial and residential roofs. Two types of turbines have already been installed – a 2.4-kW “downwind” Southwest Windpower *Skystream* and a 1.2-kW vertical-axis Mariah Windpower *Windspire*. Three additional turbine systems are planned: a 1.5-kW “upwind” Cascade Energy Swift, a 6-kW “downwind” Proven 6 turbine, and a bank of five AeroVironment AVX1000 turbines with a collective 5 kW of nameplate generating capacity. The turbines range between 7 and 40 feet tall. Rotor diameters range between 5 and 18 feet. The wind lab is expected to provide valuable data on rooftop wind turbine productivity. The project is a joint initiative with the Massachusetts Renewable Energy Trust.

In 2008, the NH State legislature passed HB310, which created a framework for municipalities to regulate small wind energy systems. It also made changes to the definition of “accessory use,” stating that renewable energy systems are accessory uses and shall be encouraged so long as they are in the public interest. Nearly two dozen towns have since adopted regulations regulating small wind energy systems. The NH Office of Energy and Planning released a Small Wind Energy System Technical Bulletin, including a model ordinance, in Fall 2008.

Cool Links

Go to the NEWF Web site to see a map (http://www.windpoweringamerica.gov/ne_projects.asp) of all wind energy projects in New England. With our recently re-established funding, this map is updated at least twice per year.

Transporting and installing the sizable tower, blade, and nacelle components of commercial-scale wind turbines can be quite an undertaking. Check out:

- Several news and video clips on the Fox Island Wind Project construction at Vinalhaven, Maine can be found at the project’s Web site (<http://www.foxislandswind.com/>) and the construction company’s Web site (<http://www.cianbro.com/News/tabid/101/EntryID/242/Default.aspx>).
- See video highlights (<http://insidemedford.com/2009/01/29/mcglynn-school-wind-turbine-unveiled/>) from the dedication ceremony for the Town of Medford, Massachusetts’ new Northwind 100.
- This cool link provides pictures and other project-related documentation (<http://www.energymaine.com/brwind/index.html>) for the Beaver Ridge Wind Project in Freedom, Maine.
- See construction photos (<http://www.portsmouthrienergy.com/>) of the United States’ first AAER 1.5-MW wind turbine at the Portsmouth, Rhode Island high school.
- See photos (<http://www.mmr.org/wind%20turbine/TurbineBladesWebsite/index.htm>) of wind turbine components being delivered to the Massachusetts Military Reservation on Cape Cod for the MMR’s first wind turbine.

Events

The New England Wind Forum Web site maintains an up-to-date calendar of wind-related events, from conferences and workshops to siting hearings, in all six New England states. Check the calendar frequently for the latest opportunities to attend industry and community forums and be involved in the wind energy dialogue at www.windpoweringamerica.gov/ne_calendar.asp.

The Massachusetts Wind Working Group (<http://www.ceere.org/rerl/mwwg.html>), the region’s most active wind working group to date, meets several times per year, most recently hosting meetings with speakers discussing the proposed Massachusetts Wind Energy Siting Act, a Wind Energy in New England status update, and new net metering regulations and tariffs. Meanwhile, Connecticut’s new Wind Working Group had its inaugural meeting at the Yale School of Forestry and Environmental Studies in June 2008. The recently formed Maine Wind Working Group hosted a full-day conference on October 6, 2009. Information is available at: <http://www.mainewindenergyconference.com/>. More information on the state wind working groups’ activities and meetings can be found on the NEWF Web site state pages, as well as on the event calendar.

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