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Maine Public Utilities Commission

Report on the Community-based Renewable Energy Pilot Program

Presented to the Joint Standing Committee
on Energy, Utilities and Technology

January 15, 2019



STATE OF MAINE
PUBLIC UTILITIES COMMISSION

Mark A. Vannoy
CHAIRMAN

R. Bruce Williamson
Randall D. Davis
COMMISSIONERS

Harry Lanphear
ADMINISTRATIVE DIRECTOR

January 15, 2019

Honorable Mark W. Lawrence, Senate Chair
Honorable Seth A. Berry, House Chair
Energy, Utilities and Technology Committee
100 State House Station
Augusta, Maine 04333

Re: Report On the Community-based Renewable Energy Pilot Program

Dear Senator Lawrence and Representative Berry:

During its 2009 session, the Legislature enacted An Act to Establish the Community-based Renewable Energy Pilot Program (P.L. 2009, c. 329). Part A of the Act establishes a community-based renewable energy pilot program, to be administered by the Commission, to encourage the sustainable development of community-based renewable energy projects. The Act provides incentives, on a pilot program basis, for the development of community-based renewable projects. The Act also directs the Commission to provide biennial reports to the Committee on the pilot program. Attached is the Commission's Report for the Committee's consideration.

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

Sincerely,

Mark A. Vannoy, Chairman

On behalf of the Chairman
R. Bruce Williamson, Commissioner
Randall D. Davis, Commissioner
Maine Public Utilities Commission

cc: Energy, Utilities and Technology Committee Members
Lucia Nixon, Legislative Analyst

I. INTRODUCTION

During the 2009 session, the Legislature enacted An Act To Establish the Community-based Renewable Energy Pilot Program (Act).¹ Part A of the Act established a community-based renewable energy pilot program (CBRE pilot program), to be administered by the Commission, to encourage the sustainable development of community-based renewable energy projects.² In summary, the Act provided incentives, on a pilot program basis, for the development of community-based renewable projects.

The Act requires the Commission to provide biennial reports to the Legislature on the pilot program.³ Specifically, the Act provides:

The Commission shall develop and administer a system to register and track the development of community-based renewable energy projects and by January 15, 2011 and biennially by January 15th thereafter shall report to the joint standing committee of the Legislature having jurisdiction over utilities and energy matters on the program and the development of community-based renewable energy projects. The report must include, but is not limited to:

1. Community-based renewable energy development.

Documentation of the progress of community-based renewable energy development, including the number of community-based renewable energy projects in the State, the generating capacity of those projects and the kilowatt-hours of electricity purchased from community-based renewable energy projects; and

2. Program implementation; assessment; recommendations.

Actions taken by the Commission to implement the program, an assessment of the effectiveness of the program with respect to encouraging the sustainable development of community-based renewable energy in the State and recommendations, including any necessary implementing legislation, to improve the program.

The Commission hereby submits this report to the Energy, Utilities and Technology Committee on the status of the CBRE pilot program.

II. OVERVIEW OF THE PILOT PROGRAM

As stated above, the Act provides incentives, on a pilot program basis, for the development of community-based renewable projects. The Commission has provided a detailed description of the pilot program in the reports to the Committee submitted in 2011, 2013, 2015 and 2017 and summarizes the key aspects of the program here. The projects must generate electricity from an eligible renewable resource, which includes: fuel cells; tidal power; solar, wind and geothermal installations; hydroelectric generators;

¹ P.L. 2009, c. 329.

² 35-A M.R.S. §§ 3601-3609.

³ 35-A M.R.S. § 3607.

generators fueled by landfill gas; and biomass generators whose fuel includes anaerobic digestion of agricultural products, byproducts or wastes. These projects must be “locally owned electricity generating facilities,” which means that 51% or more of the facility must be owned by “qualifying local owners.” The facilities must not exceed 10 megawatts (MW) and no single transmission and distribution service territory may exceed 25 MW of installed capacity unless approved by the utility and the Commission. Pursuant to the Act and Chapter 325 § 3(A) of the Commission’s rules, the total installed generating capacity of all program participants in the pilot program combined may not exceed 50 MW. The Act stated that the pilot program would terminate on December 31, 2015.

Once qualified as a community-based renewable energy project, the participant has the option to elect one of two incentive mechanisms: 1) a long-term contract for the output of the project with one of the investor-owned transmission and distribution utilities; or 2) a renewable energy credit (REC) multiplier (in which the value of the REC is 150% of the amount of the produced electricity). The participant may elect a contract for up to 20 years at prices based on the cost of the facility up to 10 cents per kilowatt-hour (kWh), a price that is significantly above the wholesale market price of power. The Act directed the Commission to conduct a competitive solicitation for projects that are one MW or greater. For projects that are less than one MW, the Act required the Commission to establish by rule prices for wind power installations, solar arrays, and other resource types upon request. In the event a participant chooses the REC multiplier, RECs associated with the project would have a value that is fifty percent greater than the market value for RECs eligible to satisfy Maine’s renewable resource portfolio requirement.

III. PROGRAM CHANGES MADE DURING 2015 LEGISLATIVE SESSION

During the 2015 session, the Legislature enacted An Act to Amend the Community-based Renewable Energy Pilot Program⁴. This Act directed the Commission to review all certified program participant projects that had not yet reached commercial operations to determine whether the projects are reasonably likely to achieve commercial operations within a 3-year period and, to the extent there is capacity remaining under the 50 MW statutory cap, to conduct an expedited RFP to select community-based renewable energy projects to become program participants and enter into long-term contracts. The Act also provided that those projects that selected the REC multiplier do not count towards the 50 MW statutory cap and that all projects must become operational by December 31, 2018.

IV. COMPETITIVE SOLICITATIONS

Since 2010, the Commission has conducted three competitive solicitations pursuant to the CBRE pilot program as outlined below. It should be noted that the pilot program contained a provision whereby projects of 1 MW or smaller could enter into a contract without submitting bids in a competitive solicitation. The contracts with Exeter

⁴ P.L. 2015, c. 232.

Agri-Energy (Phase 1) and Goose River Hydro shown on Attachment 1 were authorized in this fashion.

On April 28, 2011, in Docket No. 2011-00150, the Commission issued an RFP for community-based renewable energy projects. On October 14, 2011, the Commission issued an Order authorizing the terms of a long-term contract between Bangor Hydro Electric Company (now Emera Maine) and Pisgah Mountain, LLC, for a 9 MW wind facility in Clifton, Maine. This Order also authorized the terms of two additional contracts, Jonesport Wind, LLC, a 4.8 MW wind facility in Jonesport and Lubec Wind, LLC, a 4.8 MW wind facility in Lubec. The Jonesport Wind and Lubec Wind proposals were later combined in the 2013 RFP.

On March 21, 2013, in Docket No. 2013-00207, the Commission issued a RFP for community-based renewable energy projects. On May 28, 2013, the Commission approved the terms of contracts with Jonesport Wind, LLC, a 9.6 MW wind facility in Jonesport and a 2 MW expansion of the Exeter Agri-Energy project in Exeter. On August 27, 2013, the Commission authorized the term of a contract with Maine Woods Pellet Company, LLC (now Athens Energy) for a 7.1 MW wood fired biomass facility in Athens.

The Commission conducted one final solicitation for the CBRE pilot program by issuing its 2015 RFP for community-based renewable energy projects on September 30, 2015 in Docket No. 2015-00299. By Orders issued December 22, 2015 and January 29, 2016, the Commission authorized the terms of contracts with four projects: a 9.9 MW solar project in Pittsfield to be developed by Clear Energy, LLC and Cianbro Development Corporation; a 7.5 MW biomass plant in Searsmont to be developed by Georges River Energy, LLC; a 310 kW hydroelectric power plant and 85.68 kW solar array in Dover-Foxcroft to be developed by Mayo Mill, LLC; and a 1.0 MW wind facility in Limestone, Maine to be developed by Shamrock Partners, LLC.

V. PROGRAM AND PROJECT DEVELOPMENT STATUS

As noted, the Commission's authority to award contracts pursuant to the CBRE pilot program expired as of December 31, 2015 and projects were required to begin generating electricity no later than December 31, 2018. Several projects that had received contract awards were not able to reach that operational deadline and are no longer eligible to execute power purchase agreements. Project status is summarized on Attachment 1.

VI. CONCLUSION

The CBRE pilot program began slowly with few projects reaching commercial operations in the first several years of the program. Although initially a number of projects elected the REC multiplier incentive, no projects actually used this incentive mechanism and the 2015 modifications to the program provided that projects electing the REC multiplier would not count against the 50 MW overall program cap. Thus, only the long-term contract incentive mechanism has proven

effective in supporting the development of projects of different sizes, technologies, location, and contracted price. A total of nine projects totaling 47.1 MW were approved for long-term contracts over the period 2011-2015. Of those approved, seven projects totaling 36.8 MW have achieved operation.

The costs of the pilot program, in terms of above-market costs that will be borne by ratepayers, will depend on the actual generation output of the projects that have reached commercial operations and the future wholesale market price for electricity over the remaining years of the 20-year contracts. The cost could range in the order of \$5-8 million per year for all projects.

The CBRE pilot program has shown that long-term above-market electricity contracts can result in the development of smaller renewable generation projects. The Commission notes that the program MW (50 MW) and price (10 cents/kWh) caps limited the total amount of above-market costs that could be borne by the State's electricity ratepayers. Most of the contract prices were at or only slightly below the program cap of 10 cents/kWh. The additional statutory requirement that the Commission ensure that any contracts authorized did not exceed the cost of the project plus a reasonable rate of return on the developer's investment allowed the Commission the opportunity for an additional check on the potential for over-earning by bidders. As a practical concern, however, conducting this check raised questions regarding the source of project cost information (which was provided by bidders), the calculation of investor returns on tax-incented investments, and the market reasonableness of a calculated return.

As noted in the 2017 report on the pilot program, the Commission's experience implementing the program revealed that the qualifying local ownership requirement, requiring that 51% of the project be owned by Maine residents or Maine corporations, resulted in significant difficulty for some developers seeking to take advantage of innovative financing opportunities, such as tax equity financing, that could lower overall project costs.

Competitive Solicitations: Community-Based Renewable Energy Pilot Program

Attachment 1

Note: For contracts authorized pursuant to the CBRE Program, the Commission did not perform an initial cost/benefit analysis. The program authorized the Commission to award contracts at a price that did not exceed \$0.10 per kWh. Proposals were evaluated on the basis of whether they met the pricing requirement.

Docket No.	RFP Issue Date	Commission Order	Developer	Resource	Installed Capacity (MW)	Pricing Terms (cents per kWh)	Term (Years)	Comments
2013-207	3/21/2013	5/28/2013	Jonesport Wind	wind	9.6	8.5	20	Did not achieve commercial operations by December 31, 2018.
2011-150	4/28/2011	10/14/2011	Pisgah Mountain	wind	9.0	9.3	20	Operating.
2013-207	3/21/2013	8/27/2013	Athens Energy	biomass	7.1	9.9	20	Operating.
2015-299	9/30/2015	12/22/2015	Shamrock Wind	wind	1.0	8.3	20	Did not achieve commercial operations by December 31, 2018.
Phase 1: N/A Phase 2: 2013-207	Phase 1: N/A Phase 2: 3/21/2013	Phase 1: N/A Phase 2: 5/28/2013	Exeter Agri-Energy	anaerobic digestion	3.0	Phase 1: 10.0 Phase 2: 8.5	20	Operating.
2015-299	9/30/2015	12/22/2015	Georges River	biomass	7.5	9.9	20	Operating.
2015-299	9/30/2015	12/22/2015	Pittsfield Solar	solar PV	9.9	8.45	20	Operating.
N/A	N/A	N/A	Goose River Hydro	hydro	375 kW	10.0	20	Phase I operating.
2015-299	9/30/2015	12/22/2015	Mayo Mill	solar PV, hydro	395 kW	10.0	20	Did not achieve commercial operations by December 31, 2018.