

The Community Energy Policy

Department of Energy

February 2010

Introduction

The Province of New Brunswick wishes to support the development of clean, renewable energy that benefits all New Brunswickers. Providing additional economic opportunities in all regions of the Province in the energy sector is a key goal of the New Brunswick Energy Hub.

To support this goal, the Province has developed a New Brunswick Community Energy Policy. The Province has designed this policy to foster the development of up to 75MW of community energy projects, of which 25MW will be allocated to First Nations.

Community energy projects are locally developed, majority owned and operated by a municipality, community group or cooperative. They are classified as energy projects of less than 15 MW.

While being a source of electricity generation, community energy projects also have other advantages. Typically they:

- Contribute greater impacts on local economies;
- Contribute greater acceptance of renewable power by citizens;
- Have increased citizen and community engagement in sustainable development;
- Develop community entrepreneurship and stronger communities.

Under the Electricity Act, New Brunswick has a regulated renewable energy requirement for electricity used in the Province. Commitments have been made to acquire 400MW from wind energy produced in New Brunswick at an accelerated rate from the regulated targets. This was done to take advantage of federal incentive programs and to cut green house gas emissions of NB Power Generation and to mitigate impacts from proposed federal emissions standards. This first target of renewable energy development will be met mainly with large-scale wind farms through competitive bidding processes.

In 2008, the Department of Energy conducted a series of public consultations and dialogues on the proposed development of a community and First Nations wind energy program for New Brunswick. A final report was submitted with a series of recommendations to the Department of Energy in the fall of 2008. The report was released to the public in October 2008 and solicited further comments from the public and feedback via the Department's web site.

Although the focus of the consultation process was largely based on wind energy, many comments from the public dialogues concluded that there are opportunities for other renewable sources of energy as well. This policy will support development of any renewable energy source that is commercially viable for electricity production in the province. Projects that make use of biomass resources, wind, solar, small hydro, or tidal power can be considered.

Policy Description

The purpose of the community energy policy is to increase the participation, ownership and engagement in renewable energy development at the local level. It is a response to

the call for more community participation and involvement in the development of the energy sector, without compromising a jurisdiction's ability to develop large, utility scale wind farms to meet its regulated renewable requirements.

The Department of Energy is implementing a Community Energy Policy that initially allocates 75MW of NB Power electricity procurement. In its initial phase, 25MW will be allocated to First Nations, as many of the advantages and characteristics noted for communities are relevant to First Nations as well.

Characteristics of Individual Community Energy Projects

Community and First Nations energy projects are limited to 15 megawatts (MW) or less in electric power capacity. Projects in the 20MW range are commercially competitive and do not need an alternative program for development.

Projects may be based on biomass resources, wind, solar, small hydro, or tidal power. Proponents must demonstrate availability and access to the energy resources being considered.

Ownership of Community Energy Projects

Eligible majority owners (51% or more) and participants include New Brunswick First Nations, municipalities, cooperatives, not-for-profit organizations and institutions. Other potential minority participants include New Brunswick based private corporations and investors. NB Power will not be included in the ownership structure of community energy in New Brunswick at this time.

The sale of community energy projects in New Brunswick will only be allowed in a manner that maintains the ownership structure as set out above. The first right of first refusal will go to the other partners in the project. Should none of the other partners wish to further invest in the project, new partners may invest in the project while maintaining the structure of community energy.

Allocation of Power Purchase Amounts by Utilities

Policies for small-scale projects of approximately 3MW or less are already in place through the Embedded Generation and Net Metering programs from local utilities. The initial allocation for these programs through NB Power is 21MW and will be reviewed once it has been fully allocated.

A limitation on the purchase of independent power generation by utilities is necessary to reduce the financial risk to those that carry the final cost; the electricity rate payers of the Province. Community scale energy projects tend to produce at a higher cost than large utility scale projects.

Providing an additional 75MW for community based electricity production to the existing Embedded Generation and Net Metering limits will almost fully subscribe 100MW of clean renewable energy by New Brunswickers. These allocations will be regulated under the *Electricity from Renewable Resources Regulation*.

Current projections limit rate exposure to less than 0.2% for up to 75MW of community energy projects amortized over 25 years at 5% interest. Once these power purchase contracts have been fully allocated, the Province will further review potential rate impacts and may increase the program limits in subsequent phases.

Power Purchase Agreements

The Province will use regulatory and legislative amendments to ensure NB Power acquires the allocated amounts of community energy in a timely manner and in a fair, open, and transparent process. Criteria for projects will be established with a minimum

power purchase agreement of 20 years for most projects.

Connection to the Electricity Grid

Community energy projects will be able to connect to the electricity distribution or transmission system depending on their size and location. The cost of connecting to the distribution or transmission system will be the responsibility of the project proponent(s) and must be included in the cost of the project.

Detailed information on grid connection of community energy projects is available from electric utilities in the province and the New Brunswick System Operator. Projects will be considered for connection on a first come first served basis.

Price Paid for the Electricity

The initial price of electricity purchased from community energy projects will be \$0.10/kWh and frozen for 5 years in order to match the projected rate freeze of the NB Power - Hydro Quebec agreement and to minimize the impact on electricity rates over the life of the projects. This price will be escalated at CPI after year 5 and will be regulated under the *Electricity from renewable resources regulation*.

The utility is absorbing price risk for the electricity and will therefore own any environmental attributes associated with community energy projects. In order to meet the *Electricity from Renewable Resources Regulation*, the attributes cannot be sold or used to meet other Federal targets that may be imposed.

Project Financing

Community energy projects will have a range of capital expenditures and the amount of financing will vary based on the type of renewable energy project being developed. Wind energy has been ranging from \$2.5 to \$3 Million per megawatt. For a 15MW project, this could require a capital investment of up to \$45 Million. Biomass projects have less of a capital expenditure per megawatt but will have an ongoing fuel cost. Small hydro projects can vary depending on the type of turbine being used. Environmental preparation can lead to significant upfront costs.

Communities must secure their own financing. This can include the private, commercial financing and funding assistance mechanisms that are currently available in the province. Communities will be assisted in the process of accessing these mechanisms as part of the Community Energy Policy.

Support in the Development of Community Energy Projects

Support for Community Energy projects is being coordinated by the New Brunswick Department of Energy and is assisted through partnerships with local Enterprise Agencies and other development assistance organizations.

Project Development Process

To assist communities to get started with their project development, participant information sessions are being organized throughout the province by the Department of Energy and will be held in March 2010. In addition, resource material is available for proponents (see Reference Documents section below) and an information brochure will be distributed at the information sessions in March 2010.

Resource assessment

Community groups will begin their project development by assessing the energy resources available in their specific area. General resource maps and data are available on some resources through the Department of Energy, which continues to support that

work at the provincial level. Examples include a recently announced small hydro development study and earlier work on in-stream tidal power and wind energy. Resource assessments that are more detailed and specific to local areas will need to be done by project proponents. They must ensure that there are sufficient resources and access is available to them to develop a project.

Feasibility study

With a successful resource assessment, the feasibility study then needs to assess the technology application for producing electricity, the production costs and their relation to a potential sales price to the utility. Local Enterprise Agencies and economic development partners can assist community developments with advice and funding in this element.

Business plan

The next step in the development process is to prepare a business plan in order to secure financing and funding assistance if needed. The local Enterprise Agencies can also assist with this step and funding may be available through existing programs.

Capital Funding Assistance

Assistance in the costs of each step of the development process is available. As each step is proven to have a positive outcome, funding assistance can be anticipated for the next step including the capital development costs.

Other Steps to Development

There are many steps to developing a renewable energy project that were not mentioned above including environmental permitting, grid access, land access, transportation, etc. The Department of Energy has developed a Renewable Energy Guidebook that is available through our web site and provides proponents with a comprehensive guide to the regulatory and permitting process. The business development officers assigned to community energy in New Brunswick will also assist proponents through the steps to development.

Policy Partners

The overall policy will be coordinated by the Department of Energy and will be assisted through partnerships with local Enterprise Agencies and other development assistance organizations.

Reference Documents:

1. Community Wind Energy Program for New Brunswick 2008;
<http://www.gnb.ca/0085/pdf/Community%20Wind%20NB%20-%20Preliminary%20Report%20September%2026%202008.pdf>
2. New Brunswick Developers Guide to Renewable Energy
http://www.gnb.ca/0085/pdf/Developers_Guide_E.pdf
3. Model Wind Turbine Provisions and Best Practices for New Brunswick Municipalities, Rural Communities and Unincorporated Areas
<http://www.gnb.ca/0085/pdf/NBwindEnergy.pdf>
4. *Interim Policy on Allocation of Crown Lands for Research in Support of In-Stream Tidal Power Generation.* <http://www.gnb.ca/0078/Policies/CLM0192007E.pdf>

5. *Allocation of Crown Lands for Wind Power Projects*
<http://www.gnb.ca/0078/Policies/CLM0172005E.pdf>
6. *Wind Resource Map of New Brunswick*
http://www.gnb.ca/0085/maps/Wind_Map_NB_80m2007.pdf