

November 19th, 2008

Hon. Jack Keir, Minister of Energy  
New Brunswick Department of Energy  
P. O. Box 5001  
Saint John, NB  
E2L 4Y9

**Re: CanWEA comments on “A Community Wind Energy Program for New Brunswick” Preliminary Report**

Dear Minister Keir,

On behalf of CanWEA’s Atlantic Caucus Members, I would like to thank you for the opportunity to comment on Dr. Yves Gagnon’s “Community Wind Energy Program for New Brunswick” Preliminary Report released last month and presented to our members for feedback.

CanWEA is a not-for-profit association representing over 400 corporate members including manufacturers, developers, service providers, utilities, system operators, research institutions and other groups. CanWEA’s work in New Brunswick is guided by our Atlantic Caucus, consisting of over 40 members with a broad range of interests and perspectives.

We are pleased to see that the report seeks to further expand on the goals of CanWEA and the industry to increase the social acceptability of wind energy projects in their communities. We also hope that the information provided therein will help municipalities and interested individuals make more informed decisions with regards to their community wind investment objectives. However, CanWEA has some concerns with certain sections of the report, namely those related to the assumed costs of construction of small wind farms, the evaluation of their production yield, challenges related to their operation and maintenance, and the pricing policy needed to make them profitable. These are described below.

1. **Installation cost estimates – Section 6:** The report suggests that the installed capital cost of a small wind farm ranging in size from 5 to 15 MW is \$2.2 million/MW (2008 CDN dollars). CanWEA believes that this estimate is more reflective of the costs associated with the construction of a larger wind farm (50-100 MW), for which economies of scale play an important role. Indeed, many large wind farms actually have installation costs that are higher than this. In its February 2008 presentation before the *Association francophone des municipalités du Nouveau-Brunswick*, CanWEA estimated the installation costs of small wind farms to be in the vicinity of \$2.5 to \$2.8 million/MW. A study concluded this year by Hélimax on the subject projected this cost at \$2.8 million/MW (also referred to in Dr. Gagnon’s report), while recent reports for similar wind farms in Ontario suggest the installation costs to be in the \$3 million/MW range. We would therefore suggest that the \$2.2 million/MW estimated installation cost of small wind farms is well below observed tendencies in the market and needs to be revised upward when considering policies to support the deployment of smaller wind energy projects.

2. **Production yield estimates – section 6:** The report suggests an average capacity factor of 36% to estimate the expected yield of small wind farms. It should be noted that this capacity factor has been achieved by only a handful of projects in Canada. While New Brunswick does have a relatively good wind resource, observation and actual experience makes it clear that it would be prudent to lower the estimate of production yields, particularly for smaller wind farms.
3. **Operation and maintenance – general:** There is little mention in the report of the technical challenges inherent to managing a small scale wind farm. This challenge is related principally to the ongoing maintenance of turbines, and the difficulty smaller projects face in arranging to have at their disposal full time staff to ensure the effective operation of their equipment. Important delays in maintenance can have significant impacts on the annual yield of wind farms and their profitability, especially for smaller wind farms. For example, consider a single wind turbine that is undergoing routine maintenance; in a small wind farm of 5 turbines, that routine maintenance reduces the wind farm's production by 20%. In a large wind farm consisting of 50 turbines, that maintenance event reduces production by only 2%. This reality needs to be taken into account when projecting the yields of such operations and setting pricing policy.
4. **Pricing policy – section 6:** The higher installation costs inherent to small wind farms, coupled with maintenance and operational challenges that often lead to lower production yields, suggests that a pricing policy adapted to community wind also needs to be put into place in New Brunswick. The study concluded this year by Hélimax on the subject estimated that a start price of 12.5 c/kWh is needed to allow these projects to become profitable. Note that Ontario's Standard Offer Program, with a price of 11 c/kWh for projects of 10 MW and less, has proven to be extremely challenging unless several 10 MW wind farms are grouped in clusters of 50 MW and more. Based on the above, we would suggest that the recommended start price of 9 c/kWh for community wind in New Brunswick that is presented in this preliminary report falls far short of the price required to make these projects profitable.

In conclusion, CanWEA believes that community wind represents a very strong opportunity for New Brunswick. However, in order to succeed, we believe that it is important to have pricing conditions that ensure strong projects and low attrition rates. We would be pleased to explore any of these elements in more detail and would welcome the opportunity to work with your Department constructively to further strengthen the emerging community wind sector in New Brunswick.

Sincerely,



---

Robert Hornung  
President



**canwea**

CANADIAN WIND ENERGY ASSOCIATION | ASSOCIATION CANADIENNE DE L'ÉNERGIE ÉOLIENNE

cc: Yves Gagnon, Chaire K.-C.-Irving en développement durable  
Université de Moncton