

**NOVA SCOTIA UTILITY AND REVIEW BOARD
IN THE MATTER OF THE ELECTRICITY ACT
- and -
IN THE MATTER OF**
a hearing to determine Renewable Energy Community Based Feed-in Tariffs

Direct Testimony and Exhibit of
Neal Livingston - President, Black River Wind Limited

On behalf of Black River Wind Limited

March 17, 2011

1. My name is Neal Livingston.
2. I am the President of Black River Wind Ltd. since its formation in 2005. This is a wind development company whose main focus to date is a plan for 3 wind turbines over 3 locations, which total 6MW for distribution interconnection, as well as initial planning and development work for 5 other wind farms totally approximately 250 MW.
3. I am also the President of Black River Hydro Limited since 1983. Since mid-1984 Black River Hydro has owned and operated a 220kw Hydro plant selling it power to NSPI. It was the first IPP to do so in this era.
4. I am also the President of a renewable energy CEDIF fund called The Cape Breton West Wind Field Inc. that I helped form in 2002.
5. I am also personally involved with and have expertise in small water power since 1980. At that time I built a 3.5kw micro-hydro plant to supply power to my home that became the first net metered installation in Nova Scotia in 1993.
6. I am also personally involved with and have expertise in solar. I built a passive solar home in 1986 which has active solar components, and I professionally promote solar development in water heating, home space heating, and PV as the best options for Nova Scotia's energy future.
7. I am unique in this Province both professionally and personally as a result of this professional and personal experience that I have just described. I am pleased to make myself available to testify at this hearing.
8. The effective role I can provide with my expertise at this hearing is to assist the Board to understand issues related to the matters that I will describe subsequently which are being overlooked, and not addressed properly by advisors to the Board, or by Government in its policy design.
9. Accompanying this submission is a one-page financial analyses of a 2MW wind project. As can be read, the results forecast that the CEDIF shareholders will not receive a return on their investment, or one so modest as to be not worthwhile to invest. This is partly a function of the price that will be paid, but more importantly is the result of the need for additional equity, that is only available at a much higher cost than is proposed by the consultants at this hearing.

10. It is my recommendation that the Board understand that government has insisted on a form and structure for this COMFIT, but has failed to comprehend and address whether conditions will exist here in Nova Scotia, for more than one or two projects to be able to be financed through the CEDIF mechanism, based on the real world of equity finance, and not some wishful thinking by government. So great is this a failure of this proposed public policy, that I recommend the Board adjourn the hearing until government is able to competently address this matter.
11. If this matter of equity finance is not addressed properly, the end result will be that shareholders of community projects will fail to make returns, and projects will not be built, with the end result being a loss to shareholders of their investments.
12. In my experience as a renewable energy developer, the take on profit that is demanded by the senior equity partner for under 10 MW projects, is not possible to organize and finance in a way to have a fair return for the CEDIF COMFIT investor.
13. To date CEDIFs for renewable energy projects have not been successful. There are hundreds of small investors who are unhappy to have invested in proposed and actual projects. That the government would base its new policy around a failed model, is rather astounding. The government to date has been unwilling to listen to any feedback on this.
14. The government has politicized the COMFIT process, by choosing some technologies over others to receive a FIT rate versus COMFIT rate, as a result of political lobbying. Both the very high payment being proposed as a FIT for tidal (an undeveloped technology), and the FIT for Biomass, are to be excused from the requirement to work under the CEDIF rules that wind and hydro must work under.
15. The Board should reject this as unfair, undemocratic, and unworkable and send it back to government, with the advice to not re-invent FITs - which are successful worldwide, as COMFITs here in Nova Scotia. We need an FIT for all commercialized and proven renewable energy sources for Nova Scotia, not a COMFIT.
16. I should also mention that solar, which is entirely competitive with tidal at the price being offered to tidal, has been completely left out of this hearing. To be left out is just as egregious as the political decision to have a COMFIT for hydro and wind, and a FIT for biomass and tidal.

17. In 1984, when my father and I financed and built Black River Hydro Limited's hydro plant, we were able to do so solely based on the fact that at that time we could borrow 90% of the required capital. This was in part because Federal government programs were in place for small business banking, which the banks utilized for security.
18. Today no such programs exist, and banks will loan somewhere between 50% and 60% for projects like these. This means that distribution scale projects have a significantly greater need for equity as compared to the 1980s.
19. In my experience in trying to raise capital for nearly 7 years for the 6MW Black River Wind Ltd. project, this capital is only potentially available if it can be guaranteed returns of 18-24% or more. In my attached model – "evidence submitted", I use a 20% equity return to outside capital although in our work we have not seen any offers of capital at less than 25% or more returns. Even the 20% in my model, shows no returns to the CEDIF.
20. In finance work for the Black River Wind Ltd. projects to date, we have not gone forward with a number of equity offers. This is because once one properly comprehends all of the details of these offers, and costs, in all cases the ownership and profit left in the project to us is so minimal, and so much at risk or deteriorating further, as to make such offers unprofessional to accept.
21. The fact that Government chooses to ignore such basic analysis as to the cost of equity and its availability, in the design of this public policy I believe is setting up small Nova Scotian investors to lose their investments, as well as to make it impossible for projects to be created in a professional manner.
22. Nova Scotia's COMFIT policy will effectively stop growth in developer entrepreneurship and business acumen in renewable energy projects, as the CEDIF model does not allow small businesses to become developers. This is in complete contrast to what happens in jurisdictions where FITs – the proven policy option are put into place, and not some invented for Nova Scotia partial COMFIT policies.
23. Many viable small projects in hydro, wind and solar could be built with many short and long-term jobs if Nova Scotia was adopting a FIT and not a COMFIT. Ontario's FIT is creating 50,000 jobs by the end of 2012, and helping to close down coal generated electricity in Ontario. Nova Scotia's COMFIT will succeed in doing neither, nor is it intended to do so, as is clearly indicated by the design of the government policy. Government is not looking for small renewables projects to play a major role in energy production, in pollution reduction, business development or job creation.

24. The CEDIF I am President of last year paid tax of several thousand dollars to the Province even though its revenues to date only equal at best our expenses, and there has never been a dividend to the shareholders. The Cape Breton West Wind Field Inc. CEDIF I think is one of the successful renewable energy CEDIFs, in that will eventually be able to buy back the shares for a reasonable amount from the shareholders, who wish they could have got rid of their shares years ago.
25. As the president of a CEDIF, I wish to point out that the CEDIF model demands the Board of Directors be volunteers, even though CEDIFs are complex to run, and time consuming.
26. I am pleased to discuss the model I am bringing forward at this hearing. At the hearing, in real time, we can model my basic model into Synapse's large wind model. I have previously asked them to do this, when I have spoken at length with two of the Boards consultants to show them that the models will not work for the CEDIF shareholders. To date, if this was done by Synapse it has not been released to interveners.
27. How can the CEDIF own 51% of a project, and yet receive less than this as a return on their investment of the revenue? I suggest that the financial engineering and related finance structures will be such as to place the CEDIF shareholders at the most risk, with the least benefit.
28. I am pleased to come before the Board to help explain in whatever detail is required, in all areas of my knowledge and expertise, so that the Board can have a proper understanding of these matters at hand. My experience is valuable to this hearing in that I have long term experience in owning and operating a hydro plant.
29. I have over 26 years experience as an IPP selling power, and new entrants have no track record, so their search for equity and lending may be even more difficult than what I describe.

Neal Livingston -President
Black River Wind Limited
Box 55, Mabou, Nova Scotia
Canada B0E 1X0
neall@ns.sympatico.ca
www.blackriver.ns.ca

COMFIT 2 MW Wind Project Scenario

Neal Livingston – Black River Wind Limited

- **\$5 million cost** (same cost per kw and model as for 1.5 MW model Synapse uses)
 - **CEDIF invests \$1 million** in project (it needs to raise approx. \$1.1 million to invest \$1)
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Yearly Costs and Financial Structure:

- 60% debt @ 8% = \$3 million for 15 year (approx. yr.) \$ 345,000/yr.
- Reserve Fund : one year of costs \$675,000, 100% borrowed
as part of finance, plus finance fees = \$700,000 @ 8%, 15 yr. \$ 80,500/yr.
(if cannot be borrowed then is a capital cost to project all up front of \$ 700,000)
- Outside Equity \$1 million requires 18-24% , @ 20% = \$ 200,000/yr.
- Operating Costs per year with minimum office and salaries \$ 135,000/yr.
- Misc. : taxes, legal. etc. (likely will be more costs than this) \$ 14,500/yr.

Yearly Costs before any profit share for CEDIF **\$ 775,000/yr.**

Income:

5431 MWH year (31% capacity) @ \$142.10 Mwh **\$ 775,000/yr.**

Conclusion: CEDIF model doesn't work. The return is zero or below to CEDIF.
-If there are any cost overruns , the return to the CEDIF investor will be way below zero. If the Shareholders need to invest more, due to cost overruns or O&M overruns, and the CEDIF has nothing more to invest, then the other equity party likely will have these \$, and will get a much higher % for more risk taken.

Other Issues:

- 51% of project must be owned by CEDIF by way of Common Shares, which gives rise to Preferred shares classes and preferential first take of dividends, and even guaranteed profits to this other equity shareholder(s).
- Costs of Construction Finance and ability to finance are questionable, too low.
- no exit strategy for CEDIF shareholders possible.

2nd model example:

- If outside equity sourced @15% - (which is impossible to find) = \$150,000 year
 - then CEDIF gets \$50,000, minus admin. costs, taxes etc. which will be a minimum \$20,000. year, so \$30,000 can be given to shareholders
 - \$30,000 to shareholders is taxed at approx. 17% = \$25,000 real cash value.
 - \$25,000 dividend from 1.1 million invested by CEDIF shareholders = 2% return
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