NOVA SCOTIA UTILITY AND REVIEW BOARD
IN THE MATTER OF THE ELECTRICITY ACT
And
IN THE MATTER OF
A hearing to determine Renewable Community Based Feed-in-tariffs

Direct Testimony and Exhibit of Brian Giroux

March 17, 2011

1. My name is Brian Giroux of Yarmouth Nova Scotia. I have worked in the fishing industry for over 30 years in the last 22 I have worked on behalf of groups of fishermen as a representative and negotiator.

2. For these groups I have worked all over the region in Ottawa, the north and many other parts of the Country.

3. In addition to working in the fisheries and environmental forums I helped negotiate operational and compensation agreements between our industry and the Nova Scotia Oil and Gas sector for the Lasmo Oil and Sable Gas projects.

4. As well I served a 6-year term on the Canada Nova Scotia Offshore Petroleum Board as a board member and occasionally vice chair.

5. It is here that I first came into contact with the Provincial Department of Energy.

6. One of the fishermen's groups I am a member and the leader of, fishes Elvers in Shelburne County. This is a fishery that is conducted in the mouth and estuaries of rivers.

7. All of the rivers in that county and many more in the South Western part of Nova Scotia have been severely damaged by acid rain. I have even seen a PH of 3 on the Roseway River recently making it close to vinegar. As you know this is a result of someone else burning coal and us suffering the effects. The good news is that the rain is getting better the bad news is there are no buffer rocks to aid recovery so the systems will remain stressed for a long time.

8. In addition there are blockages and abandoned structures in some of the systems. It was while attempting to clean up some of these structures that I started thinking about Hydro Power.

9. A few years ago I participated in Nova Scotia Powers RFP process with the intension of developing an abandoned sawmill site to generate electricity. Being in the fishing industry I understand how markets work for them to function properly there must be some balance. Willing buyers willing sellers fair exchanges and returns for all.

10. The rfp process proved to me this is not a balanced market and that the utility has all the control. In Synapse's December 20 report they outline the various risks a developer faces I would add the risk of dealing with a customer who is looking to take advantage. An array of penalties, firm deadlines, hard numbers and pay cash for all information stand in contrast to the utilities record of " if we make a mistake the customer will pay".

11. I think that it is this imbalanced market coupled with inexperienced developers that has lead to the failures and not the economic downturn. I note that the over 50% failure rate has forced the utility buy the assets probably cheaper than they could have developed the projects themselves.

12. These losses have eroded investor support and if we cannot make the COMFIT system work there will be no community-based investors willing to invest. I had always planned to have as many local investors as possible. I do have some concerns about the ownership percentages in some communities it may be too high. CEDIF seems like a workable vehicle an am willing to work with it.

13. It is my intension to make any hydro project I do as "green" as possible. Any project that I am costing will have fish passage of types and designs required by the species in this area. More water will be used than has been the practice in the past and I may use designs that recreate natural river conditions and flows required. I have a retired river scientist as a consultant and we will make these structures the best in the field. As well we will work hard to not alter the water level, the only flooding should be the natural rise and fall of the river.

14. Hydro projects are the most complex of all of the proposed classes. Legislated requirements include biology, archaeology, many consultations and a very complex construction methodology. In addition dam safety and new requirements have helped drive up some of the costs. But the rewards will be high capacity energy for many generations.

15. I have only investigated the acid rain impacted systems in South Western Nova Scotia, from Yarmouth to outside Bridgewater. There were some studies from the 70's and 80's and this was my beginning. More detailed

investigations have uncovered a problem that may impact more than my proposed projects. There is little or no room for feed in.

16. Sub stations throughout the area are unable to accept much power. Many substations cannot accept more than .5 mw. Of the 7 substations I investigated the range is .3mw to 3mw. The numbers are 2mw, 2-3mw, .6-.8mw, .4-.5mw, .3-.4mw, 4mw, 1.2-1.4mw. I am told this is generally the case throughout the province so meeting a target of 100mw may not be possible because of a lack of distribution slots. With this restriction on project size unless rates are adjusted to account I think there will only be a few small windmill built in most of the province under this policy.

17. Using the model provided by synapse I selected a system that fits the model. The broad river in Queens County project size could be 1.2 mw, 2 kilometers to interconnect etc. The nearby substation can only accept .3-.4mw so I reduced capital costs by 15% used the output and the rate would be $300mwh.

18. Of the 7 systems I looked at the potential was 8.8mw but there was only room for 3.6mw.

19. There are some additional costs in Nova Scotia that I think are not captured in the model that is using Vermont inputs. We will have an additional $40,000 in environmental consultants and permitting surveys. As well there is a required archaeological survey of $5000. If something of note is found a more expensive excavation may be required but it is impossible to estimate. I will attach consultant's quotes.

20. Given the slot capacity issue I request that we run the model used by Synapse. Add in the potential $45,000 in additional cost noted above, scale the project size to .4mw and reduce the capital costs by 10% to set a rate.

21. I feel this is in keeping with instructions that have been given to us by the Department of Energy and allows you to set a rate based on the realities that exist in meeting all of the required and natural restrictions.

Appendix A

Good Morning Brian

I have been playing with figures and as a rough ball park estimate the first site would cost approximately $4,000 excluding HST. Assuming that we would stay down to do other sites the reduction in travel time and transportation would reduce the cost to approximately $3,000. The break down in labour includes a background study for each site for 8 hours this includes consultations with the NS Museum and the public archives. A field reconnaissance by two qualified archaeologist which I broke down into 4 hours on the actual impact site and an additional 4hours investigating the shoreline up stream from the proposed dam. As I indicated I suspect this will be an issue with First Nations and I strongly recommend this approach to head off any potential issues during construction and operation. Expenses include the usual transportation, accommodation, meals and report preparation. I budgeted 4 hours for report preparation per site the Heritage Division will require that each location be treated separately and as such we will need a permit for each site ($111.00). The final expense is that we charge an overhead of 15% of the total to cover a variety of things ranging from insurance to cell phone costs and other miscellaneous items. If you want we can do up a formal quote with all of the above listed with a covering letter that outlines the methodology we would use.

Steve Davis Consulting

Appendix B

Brian

Environmental assessments can cost from $7,000 for a strait forward one to $25,000 for ones that involve a lot of meetings with government and the public. Of course that is assuming it doesn't get carried away with panels etc. I would assume yours would be around he 20K mark since they give NSP a hard time and NSP would expect the same for others

The field work for the assessment of the aquatic habitats:
Habitat overview of the watershed above with some basic water quality in major tributaries ie PH and temperature
I would assume presence and absence of fish -- so electro fishing below the site and at least three places above in the best habitat sites found in the habitat/ water quality survey. $15,000 with travel

Fishway functional design $2,000

The engineering design and plans would be extra say $2,000

So around $40,000 it should be under that no problem there is just a lot of unknowns with a first crack at this for these regulators.

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