MERRICK JAMIESON STERNS WASHINGTON & MAHODY

BARRISTERS

**John Merrick, Q.C.**
Direct Line: (902) 429-3178
jmerrick@mjswm.com

April 29, 2011

***VIA EMAIL***
25475

Ms. Nancy McNeil
Regulatory Affairs Officer/Clerk
***Nova Scotia Utility and Review Board***
1601 Lower Water Street, 3rd Floor
Halifax, NS B3J 3S3

Dear Ms. McNeil:

***Re: Renewable Energy Community Based Feed-in Tariffs; NSUARB-BRD-E-R-10***

This is the submission on behalf of the Consumer Advocate following the Community Feed-in Tariff ("COMFIT") hearing.

The Board has been given a difficult and challenging assignment. It has been instructed to set tariffs for wind, biomass, hydro and tidal power generation where the identity and characteristics of the potential owner generators and the components of the potential generation facilities will vary widely. The challenge facing the Board is to identify what rate for each class of power generation will provide a reasonable inducement for the defined owner generators to participate and yet still be a reasonable and just rate to be paid by ratepayers.

Because there is such a range of possible circumstances for potential owner generators, there are a range of possible tariffs in relation to each category.

> **MR. MERRICK:** I think you said that in choosing or making your assumptions or picking the assumptions or choosing the options, you were picking from a range of possible ones; reasonably possible ones?
>
> **MR. BIEWALD:** I wouldn't disagree with that.

[Transcript, p. 32]

| | |
|---|---|
| **MR. MERRICK:** | Well, within a certain range of reasonableness one number could have been picked as easily as another number or as suitably as another number, within that certain range. Obviously you're not going to vary by 30 percent on a tariff. |
| **Mr. BIEWALD:** | I suppose I'd agree with that, it may press for certain of the inputs, not broadly for all of them or for the result. |

[Transcript, p. 34]

Simply picking a number in the middle of the range gives no particular assurance that it will achieve the objective. It may result in some potential proponents being dissuaded and an equal number of proponents being overcompensated. Picking a number higher in the range will increase the likelihood that the tariff will be an excessive inducement and result in higher than necessary rates.

The Consumer Advocate makes the following comments in hopes that they may be of some assistance to the Board in performing the balancing analysis that the assignment requires.

***Jurisdiction of the Board***

The jurisdiction and obligation of the Board in setting tariffs is to ensure that the tariffs are just.

> 44 The Board may make from time to time such orders as it deems just in respect to the tolls, rates and charges to be paid to any public utility for services rendered or facilities provided, and amend or rescind such orders or make new orders in substitution therefor.

This legislated mandate has been described by the Nova Scotia Court of Appeal in the following words.

> The scheme of regulation established by the Act envisages and indeed compels control by the Board of all aspects of a utility's operation in providing a controlled service. Two great objects are enshrined – that all rates charged must be just, reasonable and sufficient and not discriminatory or preferential and that the service must be adequately, efficiently and reasonably supplied to the public. Almost all provisions of the Act are directed towards securing these two objects – that a public utility give adequate service and charge only reasonable and just rates. *(Nova Scotia (Public Utilities Board) v. NSPI* (1976), 18 N.S.R. (2d) 692 per C.J. MacKeigan at para. 17)

The amendments to the *Electricity Act* and to the regulations suggest the tariffs should incent a reasonable response from the defined owner generators, The policy issued by the Province (Exhibit 24) suggests that the tariffs should result in 100MW of proposed generation.

But neither those provisions nor the instructions given to the Board alter in any way the requirement that the tariffs be just and reasonable to ratepayers. Put another way, there is nothing in the *Electricity Act*, the regulations, the Policy or the instructions that authorizes ratepayers to subsidize excessive or uneconomic tariffs.

***It Is A COMFIT, NOT A Fit***

The Nova Scotia legislation limits access to four of the proposed tariffs to defined owner generators ("community organizations"). Those tariffs are to be designed to permit community organizations to take advantage of the tariffs.

This requirement appears to be unique. The Synapse witnesses had no experience with a COMFIT.

The community component of the proposed tariffs is not to be taken lightly. The tariffs are not to be designed from the perspective of a purely commercial operation and they are not to be designed to attract commercial developers. A real effort must be made, in at least four of the tariffs, to address the unique situation of potential community organizations as generators.

***The Advantages of Community Organizations***

The Consumer Advocate acknowledges that depending on the identity of the potential owner, community organizations may have disadvantages or greater challenges than commercial developers. They may, for example, lack experience and they may have to seek funding from lenders who have less confidence in them. Those considerations are to be taken into account by the Board in setting a tariff that would incent community organizations to overcome those disadvantages.

But community organizations have positive attributes as well, including:

- Some owner generators may not need to obtain debt financing. Such would be the case of St. Francis Xavier University, which could generate financing in the same fashion that it does for other capital projects. While there was no evidence of take up by other universities, once tariffs are set, if others are interested, it is probable they will be in the same position as St. FX. Similarly with the case of municipalities who may not be required to raise debt financing.

**MR. COADY:** ...And the Synapse consultants at one of the earlier technical sessions indicated that to the best of their knowledge there were no universities interest in combined heat and power in Nova Scotia. I knew that was not the case. And so I asked – I made – I spoke to the consultants at that hearing. I told them that indeed there were university interested in combined heat and power. I told them that I had been affiliated with that for a very long period of time. I presented

> them some evidence to that effect by presenting them, first of all, with a document that had been done two years ago when another assessment had been done by the university and others to develop this project. And I also submitted to them copies of former proposals that I had made in my capacity as a company called Antigonish Districting Heating Limited, Dr. Callaghan and I had. So the university – all the university sector, really, weren't aware that this was going on and I don't think they understood that it was important to their future. And so I had some discussions with the university, very preliminary, and they suggested that I ask for status to speak on their behalf. It's become a much more important endeavour now, now that they have a better understanding of how important this is to the potential of them to fix a longstanding problem on the campus. And so it was happenstance, mostly, that I got here.
>
> [Transcript, pp. 757-758]

**MR. MERRICK:** All right. Return on earnings or rate of return or internal rate of return, whatever you want to call it; I take it that in deciding whether to go ahead with a project now, possibly under the COMFIT, there is nothing that requires a university, or the university wouldn't see the requirement of earning 13 percent return on its equity or earnings as being a requirement to go ahead with the project?

**MR. COADY:** I think that's fair.

[Transcript, pp. 771-772]

- Investors may be prepared to participate at a return on equity that would be considerably below market expectations.

- As described in the filed testimony of Mr. Paul Chernick, some of the costs of a project may be donated, waived or reduced. For example access to a project location may be donated or provided at a very low rental.

- Depending on the identity of the community organization, it may have sufficient experience, status or stability that there are no disadvantages to be overcome and no premium required to access either debt or equity financing.

- A community organization may have support from reduced property taxes, streamlined permitting, or community labour or in-kind contribution

The Consumer Advocate submits community ownership assumes some form of community support and believes that government meant community projects to be aided, supported and promoted by the public. Costs for COMFIT projects, with community support and a known stable pricing scheme, should be lower than costs for purely commercial projects bidding into RFPs with no assurance of a contract.

**MR. CHERNICK:** My understanding is that this tariff is primarily addressed to a situation in which the community has some interest in developing the renewable. Now, that may be sparked by somebody like yourself coming in and point out that they have an opportunity. That's fine. But if the community doesn't get behind it, it doesn't seem to me to be a community project and eligible under – at least with the spirit of the community feed-in tariff.

[Transcript, p. 815]

**MR. CHERNICK:** One of the big issues in this case which I've already discussed a little bit in cross examination is the issue of what does it mean to have a community project and what effect does that have on return. And on the one hand, Synapse interpreted community as having no real benefits for the cost of the project or the return requirements and, in fact, increasing the return is simply an impediment. I looked at it as an indication that there should be community support and that the community, whether it's the municipality which has to cover its bond costs or individuals who are members of a CEDIF or other organizations, should be willing to participate in a community project, if it's really a community project, for less than market returns for projects of nominal or equal risk because it's something the community wants.

[Transcript, pp. 824-825]

**MR. CHERNICK:** and I just wanted to be clear that – because this was an issue raised by Mr. Biewald on cross examination, that my proposal was not that people be expected to come up with capital at what are, for them, good rates but maybe are less than a third party commercial investor would demand. And I think it's reasonable to start by assuming that communities really will get behind some of these projects and see what kind of response there is. And if that response is judged to be inadequate over a couple of years, then rethink whether community FIT should be refashioned into sort of community-flavoured commercial FIT that Synapse assumes.

[Transcript, pp. 825-826]

**MR. MERRICK:** Are you prepared to accept the proposition that apart from risk assessment many investors may be prepared to invest at a low rate of return simply because it's a community project?

**MR. COUTURE:** There's been a tradition of socially responsible investing that certainly has had quite a tradition in the past two decades. And from an individual standpoint, an individual has invested in community initiatives like that. I certainly think that in certain instances people may not expect a purely ---

**MR. MERRICK:** Market renewable.

**MR. COUTURE:** --- risk adjusted rate of return on all of their investments. That being said, I don't think it's a sound basis on which to build a policy. To assume hypothetically that that much capital enough to finance 300 gigawatt hours of – or 50 to 300 gigawatt hours of renewable electricity per year will be forthcoming by assuming goodwill and people accepting a lower than risk adjusted rate of return. I don't – I would question that as a basis on which to design policy.

[Transcript, pp. 1099-1100]

(See also 855-857)

While the Consumer Advocate commends Synapse for taking on the challenging assignment on a short time frame, they failed to adequately explore, seek out, analyze and determine the real needs of a variety of potential community organizations which is what the call for a COMFIT required.

| | |
|---|---|
| **MR. MERRICK:** | So other than overcoming community resistance and a job fair that you identified, job requirement, you identified no other advantages of the community organization? |
| **MR. KEITH:** | I think that's right. |

[Transcript, p. 66]

(See also p. 46, 48)

The major concern the Consumer Advocate has with the Synapse report and the recommended tariffs is that Synapse approached the assignment as if it were to develop commercial FITs designed to attract commercial developers.

Synapse had no experience with a COMFIT and knew very little about the particular circumstances of the commercial organizations for which the tariffs were to be designed. They had limited knowledge of the circumstances of a First Nation Band Council. They had no experience in funding a community organization project and thus no experience or awareness of the advantages a community organization might bring.

Much of the information on which they base their recommendations they obtained from developers and manufacturers. The only municipality they talked to was HRM which was hesitant about participating.

Synapse only briefly addresses the characteristics of community organizations and only to account for their perceived disadvantages.

The Consumer Advocate submits that in carrying out its balancing of considerations the Board should give recognition to the potential for the beneficial characteristics of community organizations by adjusting downward the recommended tariffs.

***TARIFFS ARE NOT TO BE SIMPLY BASED ON RECOVERY OF ALL COSTS***

The potential generators who took part in the hearing essentially compiled a list of what they anticipate their costs to be and translated that into the rate that would be necessary to allow them to recover the costs.

There was no mechanism to force potential power generators to structure a project as economically as possible and to cut costs in order to ensure the tariffs were a low as possible and still incent sufficient producers.

Having a proposed developer identify all the costs they would like to recover from the tariff and to use that as the basis of setting a tariff is not fair to the ratepayers. Nor does it result in efficient power generators.

The way to replicate competitive pressures is for the Board to set the tariffs low enough to "squeeze out the fat" so that potential generators are challenged to be as efficient as possible and to discourage inefficient or uneconomical generators.

There was evidence that, notwithstanding submissions as to the necessity to recover various costs, in particular cost of debt and return on equity, existing hydro and wind power generators are able to successfully operate at lower rates.

(See pp. 1331-1138)

***Impact on Rates***

Other than the filed evidence of Mr. Chernick there was no attempt made to assess the impact of the proposed tariff structure on rates.

But in order to achieve the mandate of fair and reasonable rates to the ratepayer, that consideration has to be taken into account in balancing where precisely the proposed tariff should be pegged.

As Mr. Chernick's evidence demonstrates (corroborated by Synapse's analyses), the COMFIT program could be very expensive for ratepayers at Synapse's proposed rates, especially if the tidal contribution is not constrained. Any upward adjustment to Synapse's proposal, as advocated by various potential developers, would exacerbate the rate effect.

Where there is a range of possible tariff levels the Board should opt for prices (and as necessary, capacity caps) at the low end of the plausible range, to protect ratepayers.

***Specific Tariff Submissions***

The Consumer Advocate makes the following comments on aspects of specific tariffs.

1. ***Tidal Power Generation***

   Tidal power is still in its developmental stage and the technology is evolving.

   Proponents for tidal projects accept the necessity to incur developmental costs and must be prepared to absorb the risk of those costs. Providing a rate that permits recovery of developmental costs and which reimburses the risk of developing the technology is an unfair transference of those costs and risks to electricity ratepayers.

The proposed tidal tariff should be low enough to ensure there is no such transference.

**MR. CHERNICK:** But I'm assuming that the equity ultimately comes from the manufacturer who'd be using the COMFIT structure as a way of testing and demonstrating the technology and being able to say we've installed these projects in cooperation with our community partners and they're working and they're actually producing some power, and would then be in a position to get contracts for commercial development that would allow them to scale up production and bring down their costs. And if they can't do that then they're going to be in a – if their costs remain near where the COMFIT values are even with my adjustments, they're not going to be commercially viable compared to other renewables.

[Transcript, pp. 926-927]

Synapse assumes that community tidal projects would be financed entirely by tidal-technology developer equity, and that those developers should be allowed to earn a very high 15% return, due to the immaturity of tidal technology. These are inconsistent assumptions, since the technology developers cannot expect to earn a risk-adjusted market return on an immature technology. Indeed, the manufacturers are lucky to receive any cash flow from their demonstration projects. Mr. Chernick proposed a rate of $381/MWh, 42% lower than Synapse's excessively generous proposal. This would be the highest tidal feed-in tariff in the world (about twice the rate Verdant would be receiving for its project in the East River, New York); combined with Nova Scotia's excellent tidal resource, this should establish the province as the preferred site for tidal technology development.

Given the possibility of many tidal developers installing demonstration projects, the Board should impose a cap on the tidal capacity included under the initial rate. For Mr. Chernick's proposed rate, a cap of 3.5 MW should be adequate to moderate the rate effect; if more than 3.5 MW of tidal capacity applies for the COMFIT, it would be an indication that the rate may be more generous than necessary, and the Board can then reconsider the rate COMFIT tidal rate.

2. ***Large Wind Generators***

As discussed in Mr. Chernick's evidence, wind projects in the size range covered by the large wind category of COMFIT have recently sought and obtained contracts with NSPI at prices considerably below those recommended by Synapse for this category. An RFP is subject to competitive pressures and is therefore a more realistic indicator of a rate that is sufficient to incent community organizations but at a reasonable level in balancing the interest of ratepayers. The Board should not set the COMFIT price higher than the average price in Exhibit PLC-2, Table 2.

Indeed, correcting Synapse's estimates by using the capacity factors forecast for new turbines, by developers (including several offering testimony in this proceeding), by NSPI, and by Hatch in its report to the Department of Energy, as well as more reasonable financing assumptions and a small amount of community support would indicate a price even lower than the prices bid by a mix of commercial and community developers in the NSPI RFPs. Incorporating even half of the correction in Chernick Table 6 would bring the large wind price down from \$139 to \$117/MWh. At that price, large wind's contribution to increased retail rates would be much reduced.

3. ***Biomass Generation***

It is acknowledged that fuel risk is a major consideration in setting a biomass tariff but the proposed tariff by Synapse compensates for that fuel risk by providing an escalation mechanism. That by itself should accommodate or mitigate much of the risk.

Synapse has gone further, however, and adjusted the cost of debt equity and return on equity upwards.

It is the submission of the Consumer Advocate that is overcompensation for the fuel risk.

Synapse's proposed \$156/MWh price for COMFIT biomass is about 50% higher than renewable energy purchased through RFPs, but is still low compared to the prices proposed for small wind and tidal. Since the opportunities for developing high-efficiency biomass cogeneration are limited, Synapse's proposal (corrected for an error in escalation of fuel costs) is reasonable.

Other parties have requested much higher rates for biomass, as well as greater leniency in the definition of combined heat and power. In particular, ANSS has requested a rate of \$320/MWh (Undertaking U-10), with the potential for extensive upward escalation in fuel price. At that rate, biomass could have significant adverse retail rate effects.

If the Board approves a biomass rate in excess of the Synapse proposal, the Board should limit the biomass capacity eligible for the COMFIT rate so that its rate impact would be no more than for the 5 MW of small wind allowed under the regulations. A rate of \$320/MWh should be accompanied by a cap of no more than 8 MW.

The recent lowering of the cap on available biomass for power generation may increase the fuel cost risk, but there is no evidence which would permit the Board to make a quantification of that risk.

4. ***Small Wind Tariff***

Small wind should be the easiest of the all the technology categories to site and develop by municipalities, universities, COMFITs and other community entities. It is also the technology most amenable to community assistance in siting, development and construction. A more reasonable cost of capital would reduce Synapse's estimated cost of $452/MWh to $400/MWh (Chernick Table 6). As in the case of Mr. Biewald's rooftop solar installation, from which he expected no return, Nova Scotians are likely to install many small wind turbines at this price, even if their expected returns are not quite what they could earn from canny investments in mutual funds. This adjustment would reduce the rate effect of small wind by about a third.

The proposed rates are significantly higher than those achieved by NSPI in recent RFP processes.

5. ***Hydro***

Synapse's recommended $140/MWh price for hydro is lower than all other categories except small wind, and opportunities for hydro development are likely to be limited. COMFIT hydro's effect on rates is thus likely to be modest. Nonetheless, the Board should adjust Synapse's proposed price downward to reflect more reasonable financing assumptions and some degree of property-tax relief for projects developed by the community (and possibly even the municipality itself). Assuming community financing and 50% tax relief, the hydro price would be $125/MWh.

6. ***Wind and Hydro Return on Equity***

Synapse defaulted to the ROE authorized by this Board in relation to Heritage Gas. However, as pointed out by Mr. Chernick, that is an inappropriate comparison and does not justify the ROE proposed.

Heritage is a commercial entity owned by a parent company whose approach to power generation facilities is commercially motivated. A 13% ROE may well be justified to incent a commercial developer where the rate of return is the primary objective of the developer. What ROE is necessary to incent a community organization is, as noted above, a completely different thing and deserves an analysis of the particular circumstances of a community organization power generator.

The Consumer Advocate requests the Board consider a lower return.

***Better to be Low Than High***

Setting a tariff that is higher than required locks in the overpayment for the 20 year duration of the tariff. There is no practical ability to adjust. Ratepayers are committed to pay an excessive tariff because of an overestimation of the requirement.

Underestimating the amount needed to incent a reasonable tableau of proposals is correctable. The tariff can be adjusted upward. Indeed, it could be adjusted several times to ensure that it was set at a level that was adequate for the purpose but without being excessive.

**MR. CHERNICK:** You're asking me about have I determined exactly how many hundreds of thousands of dollars can be mobilized through various – through municipal financing by the COMFITs, through credit unions, through individual investments, and the answer is no I haven't tried to do that. But those area all mechanisms, and if you want to – you know, if you have some evidence that this is only going to be enough to finance 5 megawatts altogether, well that would be relevant. We don't have to get 100 megawatts right off the bat. We don't have to get 100 megawatts through the COMFIT program at all. So it might make sense to start by seeing whether communities can finance these projects without turning them into stocking horses for commercial investors. And the – I don't see anything in the Regulations or anything in the Act that says – or in the energy plan, that says that this program is supposed to be providing a way for the capital markets to make a lot of money off of Nova Scotia ratepayers. It's supposed to be for the community. And when you say community to me, I think of the people who contribute to building a library, to building a community centre, to making their community a better place, to putting the photovoltaic's on the roof of my high school. And if you're saying, well, we just can't do it at this scale, well the government has laid out this mechanism. If the community wants to do it and can do it, great. If not, the government can come up with other mechanisms and not turn the community F-I-T into some kind of hybrid which is really just a front for Wall Street.

[Transcript, pp. 946-947]

**MR. CHERNICK:** By you, I meant, you, the Province of Nova Scotia through your COMFIT programs. And your community, if your community – if you and your community want to develop a

> project. If you don't want to develop a project – I don't see anything in what the government has done that says we want to coerce communities, to bribe the communities, to beat the communities into going out and finding commercial partners to build projects with a fig leaf of community participation, but with every dime coming from the major money centres. And if you can show me something where the government said that's our purpose, I will apologize.
>
> [Transcript, p. 948]

This is a particularly relevant consideration in the difficult circumstances in which the Board has to carry out its instructions. Because of the wide range of potential tariffs, the wide range of requirements of power generation facilities and the range of characteristics of the owner producers and because of the lack of experience in being able to assess the Nova Scotia market, the potential for getting the initial tariff wrong is increased.

Because of these variables and the risk of incorrectly setting the tariff level, the Board should adopt a conservative approach to establishing the initial tariff under this new regime.

If the result is that less COMFIT capacity is developed over the next couple years than the government desires, the Board can revisit the rates and if necessary raise them. If any shortfalls in RES procurement occur, NSPI can procure additional renewable energy through RFPs or build additional renewable generation. No long-term harm will be done. If, on the other hand, the Board sets rates that are unnecessarily high, and large amounts of high-cost resources are qualified as COMFIT projects, consumers will be harmed by 20 years of excessive costs, with no possible remedy.

***RECOMMENDATIONS***

It is the submission of the Consumer Advocate that in evaluating the recommended tariffs the Board adopt the lower of any potential tariff levels.

The Consumer Advocate further recommends that the tariffs include the following express provisions that are to be met by the project.

- Approval from the Energy Minister.
- The requirements of s. 20 of the Renewable Electricity Regulations are satisfied.
- That small wind projects are within the 5MW statutory limit.
- That the project will not generate more than the minimum load on the substations serving the feeder to which the generator would connect, minus the capacity of generators already connected to the feeder.

- The Board set a limit on the amount of tidal power allowed on the COMFIT rate to limit the rate impacts from the potential access to tidal tariffs to the same impact as would be achieved by the small wind limitation.

While several of these items are already contained in the regulations and the *Act*, it is prudent to ensure that they are also reflected in the tariff itself.

***CONCLUSION***

For each class of electricity generation facility for which the Board has been instructed to set a tariff there is a wide range of reasonable presumptions or criteria which the tariff should accommodate. While Synapse has recommended specific tariffs, for each class of facility there is a range of specific tariffs which reasonably could be selected.

The Board must balance the need to ensure ratepayers are only subject to just and reasonable rates with the need to ensure the proposed COMFIT tariffs provide a reasonable incentive to qualified owner generators.

In achieving the balance the Board should reflect the various considerations referenced by the Consumer Advocate and set the balance for each of the tariffs lower than recommended by Synapse.

A COMFIT tariff is unique with no experience or precedence to give guidance to the Board. Because of the difficulty of identifying a workable tariff in these circumstances and because setting a tariff to high will have greater negative consequences than setting it too low, the Board should establish the tariffs at the lower end of the reasonable possibilities.

Yours truly,

John Merrick

JM:dlb

133612.1