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Delivered by E-mail

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Regulatory Affairs Officer/Clerk
Nova Scotia Utility and Review Board
3rd Floor 1601 Lower Water Street
PO Box 1692 Unit "M"
Halifax NS B3J 3S3

File No: SM000349-15

Dear Ms. McNeil:

Re: ANSS Reply Submissions
Renewable Energy Community Feed-In Tariffs - BRD-E-R-10/Matter No: M03632

1. The Alliance of Nova Scotia Sawmillers ("ANSS") offers the following additional submissions in response to issues raised by other Intervenors in relation to the tariff to be established for a Combined Heat and Power Biomass Facility ("CHP Facility").

ECOLOGY ACTION CENTRE (EAC)

Delay of Biomass CHP is Not an Option

2. The EAC has recommended that the Board delay the approval of a biomass CHP rate arguing there is "questionable carbon neutrality" and "unresolved provincial biomass policy issues".

3. The ANSS observes that the submission of the EAC demonstrates a continued lack of acceptance of the provincial government policy and of the Renewable Energy Standards (RES) which authorize the use of biomass to meet the RES.

4. The Board is mandated, under the ***Electricity Act*** and ***Renewable Electricity Regulations*** on request by the Governor in Council, to establish a tariff for biomass CHP. That is what this hearing is about. The Board, as a statutory body, is required to establish the tariff for biomass CHP as well as other technologies; delay is not an option.

ANSS Fuel Reset Mechanism Lessens Ratepayer Risk

5. The EAC also expresses concern that ratepayers will be "burdened" by a COMFIT biomass fuel adjustment escalator.

6. There is, indeed, a risk associated with biomass costs. With the Synapse proposal, ratepayer costs can only escalate based on CPI and diesel indices. With the ANSS

biennial fuel cost reset mechanism, should biomass prices drop, the rate will also drop. This is of benefit to ratepayers and offers an advantage which the Synapse proposal does not.

7. From the perspective of the owner, the Synapse proposal places all of the initial risk of escalating fuel costs on the CHP Facility, but ultimately it is the consumer and the community which loses if these projects collapse. As noted by the Board in the Port Hawkesbury Biomass Project:

> *[153] If a private power producer's fuel costs increase to the point where it is losing money and the project is not economic, then there is a risk that one of these single purpose entities may discontinue and the RES energy may not be available.*[1]

CONSUMER ADVOCATE

The Tariffs Should be Cost-Based

8. The Consumer Advocate submits that tariffs are not to be "simply" based on recovery of all costs and urges the Board to set the tariffs "low enough to 'squeeze out the fat'" to discourage inefficient or uneconomical generators.

9. In establishing a rate based on detailed and accurate capital and operating costs, it ensures for this province the best chance of succeeding in meeting the goals of the Renewable Electricity Plan. Unlike NSPI which can return to the Board for Authority to Overspend, it is the CHP Facility which assumes the risk of capital cost overruns. While "squeezing out the fat" may have some conceptual appeal, the Consumer Advocate has entirely failed to identify any single line item in the ANSS capital cost and operating cost estimate which is overstated based on reliable evidence to the contrary.

10. The Consumer Advocate asserts that the Board is "better to be low than high" in setting the tariffs, arguing that if the result is underproduction, the Board can revisit the rates. Indeed, he suggests they could be adjusted several times to ensure they are set at an adequate level without being excessive.

11. In response, the ANSS states the rate-setting exercise is not a negotiation. The proper approach is for the Board to set the rates based on what it is satisfied, on the evidence, are the real costs to develop a reasonably representative project. If the rates for biomass CHP are set as recommended by Synapse, the ANSS states, with certainty, that none of its members will be able to develop; and the Board, with certainty, will be adjusting the tariff upwards. This, in no way, meets the goals as established by the province's Renewable Energy Plan.

No Jurisdiction to Cap Biomass Generation

12. The Consumer Advocate further suggests that if the Board approves a rate of $320/MWh as recommended by the ANSS, the Board should set a cap of no more than 8 MW.

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[1] Decision, NSUARB-P-128.10, 2010 NSUARB 196 at para.153.

13. With respect, the Board would appear to be without jurisdiction to establish such a cap. The Board is affixed with authority to establish tariffs in accordance with the ***Electricity Act*** and ***Renewable Electricity Regulations*** made thereunder. There is no express grant of power to cap the MW which may be generated by a biomass CHP Facility. The required qualifications are as set out in the Regulations. The Minister is then empowered to approve or reject an applicant for feed-in tariff approval that satisfies the qualifying requirements of the ***Act*** and the ***Regulations***. Only small wind generation facilities with a capacity of 50 kW or less, is capped at a maximum of 5 MW capacity.

14. As a practical matter, there are inherently self-limiting aspects of the COMFIT program as it applies to biomass CHP Facilities. Those most likely to seek approval under the program are the sawmillers whose interests are represented by the ANSS. Small facilities were felt to be unlikely to have the means or the incentive to undertake such a project. For obvious reasons, Bowater was not counted among those who might sign onto the COMFIT. As Mr. Travis further indicated in response to questioning by Mr. McGrath on behalf of the Nova Scotia Department of Energy and Nova Scotia Department of Environment, even if the Board were to approve the higher rate proposed by ANSS, he would only expect three to four sawmills to potentially apply.[2]

15. Further, on April 11, 2011, the Department of Energy announced that the original 500,000 tonne cap laid out in the 2010 ***Renewable Electricity Plan*** and ***Regulations*** was not conservative enough. The cap on the annual amount of new forest biomass that can be used to generate electricity is lowered by 30% to 350,000 dry tonnes per year. In addition, provincial forest biomass will not be co-fired in NSPI's generating plans to help meet the province's 2015 regulated target of 25% renewable electricity.[3]

16. The recommendation of the Consumer Advocate to cap approvals biomass CHP must be rejected as ultra vires the Board's jurisdiction.

Misunderstanding of Steam-Only Allocation

17. The ANSS had the benefit of the Consumer Advocate's Reply Submission and wishes to correct a misunderstanding with respect to allocation of steam generation costs. The Consumer Advocate's conclusion that the boiler capital cost has been discounted by Synapse means that the steam host is allocated 55% of the cost of steam generation is incorrect. Firstly, the discount to $1.65 million means that Synapse has allocated 82.5% of the standalone boiler cost to the sawmill ($1.65 million/2). However, the capital cost of the boiler is only one component of the cost of steam generation. All other components (fuel, maintenance, labour, etc.) are 100% allocated to the steam host.

18. Synapse has compared a boiler that produces no electricity to a CHP plant. ANSS offered a hypothetical as a comparator to demonstrate the other extreme. It was not the addition of a steam load to an existing electrical plant, as suggested by the Consumer Advocate. The ANSS compared the cost of a biomass plant producing electricity only versus that of a CHP plant producing the same amount of electricity. The point of the

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[2] Transcript, pp.610-611.

[3] ***Renewable Electricity Regulations***, s.8 Forest Biomass Cap, and April 11, 2011, News Release Natural Resources/Energy.

hypothetical was simply to demonstrate that neither scenario accounts for the sharing of the steam resource that takes place. It is not the basis for the ANSS rate.

19. The Consumer Advocate argues that "since ANSS's proposed biomass COMFIT rate is based on a facility inconsistent with the Regulations, the Board should not rely on ANSS's proposal." This demonstrates, regrettably that the ANSS was not sufficiently clear in its presentation. The proposal of the ANSS is based on a combined heat and power plant which is entirely consistent with the ***Regulations*** and simply suggests that costs should be divided 50/50 for areas where the steam resource is shared to produce electricity and heat. Those shared components are set out in Undertaking U-10, Attachment, Biomass CHP Cost Scenarios, column "Shared Value Steam Only Scenario" i.e. equipment and installation, maintenance reserve, equity closing costs & fees, interest during construction, routine maintenance, ash disposal, raw water, sewer, water treatment, labour, parasitic power, insurance, and annual fuel cost.

NOVA SCOTIA DEPARTMENT OF ENERGY (NSDOE) AND NOVA SCOTIA DEPARTMENT OF ENVIRONMENT (NSE) (COLLECTIVELY "THE PROVINCE")

The Regulations Do Not Mandate That Incremental Costs Only Be Recoverable in the Tariff

20. The Province suggests that allocation of 100% of the steam costs to the host and incremental costs only for electricity generation in biomass CHP projects is more consistent with the ***Regulations***. The ***Regulations*** carve out an exception in the ownership requirements for combined heat and power generation facilities if the heat is consumed or used by the renewable electricity generator or an affiliate. The ANSS agrees that combined heat and power means, by definition, a requirement to produce two separate energy outputs from the facility – heat and power. There is, however, nothing in the ***Electricity Act*** or ***Regulations*** which mandates that the heat be used 24/7. CHP Facilities are not designed to operate in full extraction mode 24/7 nor can they be as kilns have to be loaded and unloaded and shut down for maintenance, at minimum.

21. As explained in the evidence of Mr. Travis, the member sawmills in ANSS are operating at 50% to 60% of full operational capacity.[4]

22. The tariff proposed by ANSS does not assume that the CHP Facility is basically an "electricity-only plant with a nominal steam host" which is the "evil" the Synapse cost allocation was intended to address according to Mr. Keith.[5] Instead, 60% of the time the plant is available, it is expected to be using both heat and power compared to 30% of the time, power alone. As explained in the evidence of Mr. Hayes:

Synapse considered an availability of 85% (60% at full extraction and 25% at full condensing). Based on dozens of facilities we have constructed over the last 30 years, we would expect to construct a biomass CHP with an availability of 90%,

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[4] Pre-Filed Evidence of Fenton Travis, Appendix B, February 7, 2011, Submission, p.2.

[5] Transcript, pp.181-182.

of which 60% of the time would be full extraction and 30% would be considered full condensing.

We recommend using a 90% availability rate for consideration of this tariff. This puts impetus on the operator to maintain the facility which would provide higher availability and longer facility life.[6]

23. The Province suggests as a second reason for the allocation of incremental costs only, that if new facilities are going to be built anyway, then the allocation of costs proposed by Synapse is more appropriate. This submission entirely overlooks the fact that steam hosts have boilers currently operating and facilities designed to operate at low pressure saturated steam conditions. This is entirely unsuitable for a high pressure CHP Facility. As explained by Mr. Hayes in his pre-filed evidence:

Therefore, we can reasonably assume that no existing steam host has assets matching the need for cogeneration that they are simply not using and no one is going to retire assets currently operating to build the CHP plant unless the electrical tariff incentive covers a portion of the capital and operating costs for such an investment.[7]

24. There is no need to embed a punitive cost allocation in the rate. The ANSS proposal already assumes full extraction (steam for both heat and electricity) 60% of the time and the higher 90% availability rate incents efficiency and good maintenance practices.

PPA Terms to Address Reporting and Audit of Fuel Costs

25. We note that the Province supports the recommendation that the biomass tariff rate incorporate a mechanism to adjust changing biomass fuel costs and that it be subject to future price adjustment. However, the NSDOE does not support the fuel reset mechanism proposed by the ANSS in response to Undertaking U-11 "at this time" on the basis of administrative difficulties (compliance and auditing) and a lack of transparency.

26. In response, ANSS states that compliance may be addressed through a term of the PPA (which is subject to Board approval). Just as the PPA would require submitting of biomass sales information, it could likewise include submission to the Board to audit.

27. The ANSS states that the monthly reporting would be a collation of the actual invoices. Biomass suppliers sell on the basis of bone dry tons. Wood moisture content is measured and delivery weight tracked. An audit trail already exists and would be simple to follow.

28. Regular reporting of biomass prices would increase the transparency of the market, offer a reliable database against which the CPI/diesel escalator may be compared, and potentially form the basis for development of a biomass index.

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[6] Pre-Filed Evidence of Patrick M. Hayes, March 22, 2011, Exhibit B-11, p.14, lines 3-10.

[7] Pre-Filed Evidence of Patrick M. Hayes, March 22, 2011, Exhibit B-11, p.9, lines 23-27.

CONCLUSION

29. The ANSS urges the Board to accept its recommended biomass CHP rate and fuel cost reset mechanism. The mechanism, as proposed, provides the best assurance that customers will not be overcharged should biomass prices drop and helps mitigate fuel cost risk to developers. While some Intervenors have urged the adoption of a "conservative" approach to rate setting, they have failed to identify any specific cost assumptions by ANSS which have been overstated.

30. Likewise, the risk of undue costs being borne by ratepayers is tempered by the reality that only a limited number of CHP Facilities will be likely to participate due to inherent limitations in the system and the cap on biomass in the ***Act*** and ***Regulations***.

Yours Respectfully,

Nancy G. Rubin

NGR/lmc

cc Bruce Outhouse, Q.C.
Intervenors