

Docket BRD-E-R-10

Nova Scotia Utility and Review Board

In the Matter of: The Electricity Act and a hearing to determine Renewable Energy
Community Based Feed-in Tariffs

Opening Statement of

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on behalf of

The Consumer Advocate

RESOURCE INSIGHT, INC.

April 6, 2011

This opening statement is limited to clarification and updating my prefiled evidence. I will not repeat all the points from that evidence.

Issues Raised by Synapse Energy Economics Panel

Return and the Meaning of Community

Perhaps the most important issue in this proceeding is the nature of the financing for Community FIT projects. For the wind and hydro projects:

- Synapse assumed that returns would need to attract third-party, arms-length, market-based sources of capital, which would demand premium rates for dealing with community projects, modeled as 8% debt and 13% equity.
- I assumed that interested community organizations and entities would finance projects at the equivalent of 6% debt and 11% equity.
- Mr. Livingston suggests that half of equity would have to come from the market at 20%.
- Mr. Pynn asserts that wind projects require “returns in excess of 20–30%.”
- Scotian Windfields asserts that debt for wind projects would cost 10%.

Mr. Biewald contrasted my approach with language in the FIT regulations that says “the Board... may make allowances for any of the following matters [including] return on investment.” §19(2) For large wind, Mr. Biewald proposes a return on investment of 10.5%, while I propose rates using a return on investment of 8.5%. Both of these returns fall within the costs that the Board may include in the rate.

Synapse repeatedly characterized my analysis as assuming that the projects would be supported largely through donations. While that is certainly a possibility, I assumed that the average cost of capital for the plants would be 8.5%, far from a give-away.

Synapse assumes that community support for a COMFIT project has no value, and indeed imposes costs. This is inconsistent with any other type of community project I have ever heard of. Synapse structure the COMFIT with the community playing no role other than a burden to the commercial interests that finance and develop the projects. If communities play only that role, there is no demand for a real COMFIT, the province’s renewable objectives will be met entirely by commercial developers (and NSPI directly), and NSPI has a workable RFP process for procuring commercial projects. In fact, community projects have gone forward at prices lower than Synapse proposes, without the dependability of COMFIT pricing. I suggest that the Board set real COMFIT rates and see whether communities respond, before taking Synapse’s advice to depend entirely on for-profit market developers.

COMFIT goals

Synapse repeatedly claimed that it needed to set COMFIT rates to attract commercial, non-community investors because it had a mandate to set rates that would result in 100 MW of COMFIT projects. The basis for that purported mandate appears to be the statement

“Government will review, and if appropriate adjust, the COMFIT program in 2012, to ensure that we learn from our experience and ensure that the objective of supplying 100 MW through community/small-scale renewable electricity projects is met.” (Renewable Electricity Plan, p. 10)

That quote is interesting, in two ways. First, the Government anticipates reviewing the COMFIT program next year, and reconsidering how to promote community/small-scale renewable electricity projects. If the rates are set low, and communities are not interested in pursuing projects, the Government may find another way to pursue small projects, or ask the Board to raise rates. If rates are set unnecessarily high, we could see the “significant impact on electricity rates” about which the Renewable Electricity Plan expresses serious concern in the sentence before the one Synapse relies on.

Second, the objective is to supply 100 MW through community/small-scale renewable electricity projects, not just the COMFIT. In addition to the pre-2001 hydro and biomass projects, there are 42 MW in projects of 6 MW or less on line or under contract. NSPI has turned down proposals from several other projects at prices below the Synapse proposed wind rate and can certainly acquire more power, from those projects or others.

Regulatory arbitrage

The Board Panel was concerned about the break between the 50 kW and 1.5 MW wind project rates, and whether this creates the opportunity for regulatory arbitrage.

In the past, rates that were supposed to be set for relatively small wind or solar projects (e.g., 10 MW) were used by much larger projects (e.g., 200 MW) that split treated small groups of units (e.g., five 2 MW turbines) as separate projects. It is difficult to police the relationship between related, adjacent projects to avoid this problem.

I see no similar problem in this case. The high 50-kW rate is available only for those small, expensive installations. A proponent cannot take a 1.5 MW turbine and split its output into thirty 50-kW projects.

Mr. Livingston’s Exhibit

Mr. Livingston assumes that COMFIT hydro and wind projects can only be financed through a CEDIF, and performs some computations for a project half owned by a CEDIF and half owned by some market investor who demands a 20% return. Without endorsing Mr. Livingston’s assumptions, I note that this assumption is not necessarily inconsistent with Synapse’s assumption, since 50% equity at 20% and 50% equity at 6% averages out to Synapse’s 13%. And 6% appears to be a reasonable return for a renewable-energy CEDIF. I do not see the point in paying outsiders 20% to provide half the equity, but the numbers are equivalent.

Mr. Livingston also suggests some important changes in the inputs to the Synapse model for large wind, raising O&M and the reserve fund dramatically. I do not see that he has

introduced any evidence supporting his assumptions, but I will accept them for the purpose of reviewing his computation.

Mr. Livingston's exhibit contains two simple errors. First, he computes the cost of his inflated reserve requirement as including both the interest on the fund and the repayment of the reserve fund, as if the reserve funds would be used up over the 15 years of debt service. In fact, the reserve fund just sits there (potentially earning some interest); and can be returned to the lender at the end of the debt service. This correction reduces the cost of his reserve fund from \$80,500 to \$56,000 annually for the 2 MW unit he discusses, or about \$42,000 for the 1.5 MW unit Synapse models. Any interest earned on the \$700,000 fund would offset this value. The Watts Wind May February 2011 CEDIF offering document estimates a reserve-fund cost of \$26,000 annually for a 1.5 MW unit.

Second, he assumes that the borrowing would last 15 years (increasing the annual debt payment and the size of the reserve fund), and ignores the last 5 years of the contract, in which there is no debt payment and no debt-required reserves.

With these corrections, and using Mr. Livingston's assumption of 50% external funding at 20%, I find that the return to the CEDIF would be 4%. Coincidentally, that is the definition of "satisfactory return on investment" in the May 2002 offering document of Scotia Windfields' Cape Breton West Wind Field CEDIF. Including the tax credits to the CEDIF investors, their return would be 9.5%.

Interestingly, Mr. Livingston's Black River Wind has signed contracts with NSPI for three separate 2 MW wind projects, at prices which should be considered in relation to Synapse's proposed rates. His argument that 2 MW units cannot be built at the Synapse rates conflicts with the fact that much lower rates have been adequate.

Mr. Pynn's Evidence

Mr. Pynn suggests that large wind requires 10-year loan amortization, 20% interest during construction, equity "returns in excess of 20-30%," and a capital costs of \$4.2 million, rather than Synapse's \$3.7 million, based on the experience of Watts Wind Energy's Watts Section CEDIF-financed plant.

The February 1, 2011 Offering Memorandum from Watts Wind Energy, Inc., reports "total potential estimated installed cost of approximately \$4.1 million, or \$4.3 million with contingencies," consistent with Mr. Pynn's testimony.

Most importantly, the Offering Memorandum reports that the Watts Section Project accepted a contract paying \$124.4/MWh in 2013, with \$100/MWh fixed and \$24.4/MWh escalation with CPI inflation. The levelized value of the contract price is about \$127.5/MWh, 8% lower than Synapse's proposed rate.

Plugging the Watts Section costs and capacity factor into the Synapse model, I find that the total pre-tax return on investment would be about 8%. The equity return depends on the eventual debt and equity funding, which is not specified in the Offering Memorandum. An

8% pre-tax return on investment would result in an after-tax return of about 6.5% to 8% after-tax (over a range of no debt, 50% debt at 8%, or 50% debt at 6%). Those after-tax returns to a CEDIF would be equivalent to returns of 15%–18% to the CEDIF investors, after their tax credits.

Scotia Windfields Evidence

SWFI asserts that everyone (including NSPI and wind-energy consultants) reports wind capacity factors wrong, ignoring outages and line losses. The values I used were those accepted by NSPI in determining whether the Company is likely to meet the RES.