OPENING STATEMENT OF THE SYNAPSE CONSULTING TEAM

Good morning Mr. Chairman, members of the Panel, other parties. We appear before you today to propose Community Feed-In Tariffs (COMFIT's). Our prefiled evidence presents our specific proposals and explains the methods and approach used in their development. In this statement we will provide an overview of our effort and highlight key aspects of it.

In our evidence we propose rates for wind projects up to 50 kW and over 50 kW as well as rates applicable to biomass Combined Heat and Power (CHP), hydro and in-stream tidal projects. The decision to propose only these five rates and no others reflects our reading of the legislation governing the development of COMFIT's and government's *Renewable Electricity Plan* dated April 2010. Had COMFIT's for additional technologies, such as solar, or additional differences in the rate paid for projects within an area been intended we believe that they would have been called for in the legislation and the plan. They were not.

In developing our proposed rates we applied the three step procedure used for utility ratemaking:

- Capital costs and operating expenses were developed for each COMFIT.
- Required revenues were then developed based on a capital structure and debt and equity costs.
- Electric output was used to convert required revenue to a rate per MWh.

Our ratemaking process was implemented with due attention to the connection between the steps, to the results of similar ratemaking exercises in other jurisdictions and to other concerns such as interest coverage, using the spreadsheet model and inputs to it discussed in our evidence.

Each of the three steps introduces substantial, unavoidable uncertainty into the ratemaking process. This uncertainty is much greater than that encountered in setting rates for a regulated utility. In considering our proposals we believe it is important for the Panel to appreciate this point and to take it into account. We note that at several places in the *Renewable Electricity Plan*, Government states that they will review and if appropriate adjust the COMFIT program in 2012. We believe that this review of the COMFIT program will be important, given the uncertainty about the kind of projects that will apply for the COMFIT and the cost of those projects.

In order to develop rates that reflect basic cost recovery as called for in the *Renewable Electricity Plan* (p.11), we specified a representative plant for each COMFIT. This required choosing a capacity in MW, a general location in relation to the distribution grid and, where there were alternatives, a specific technology. Based on the choices made, capital costs and operating expenses were developed. In this process each of the five COMFIT's posed its own unique challenges. Consider, for example, biomass CHP. For

this COMFIT we had to ensure that the representative project was really "CHP", rather than simply biomass based generation. Unfortunately, none of the materials we reviewed provided a definition of CHP. We addressed this issue by assigning capital and operating costs so that the steam host was responsible for a substantial portion of the total project costs. This allowed electricity to be generated at times when there was no use for the waste heat, while ensuring that use of the waste heat, a hallmark of CHP, was a significant "cost center."

To convert investment costs and operating expenses to annual required revenues, we made use of the capital structures and the debt and equity costs shown in our Exhibit C. The *Renewable Electricity Plan* includes the cost of capital in the basic cost recovery that COMFIT rates are to provide. Accordingly, we treated capital as a cost comparable to other COMFIT project costs. We did not rely on below market financing or voluntary contributions to fund the COMFIT projects. To determine the values shown in Exhibit C, we spoke to lenders, examined what regulators in other jurisdictions had settled upon, and considered the structures and costs approved by the Board for the major utilities in Nova Scotia. Our assumptions reflect our assessment that hydro projects will be perceived as least risky, that wind and biomass projects will be perceived as more risky and that in-stream tidal projects will be seen as most risky.

The final step in the development of our COMFIT's was the conversion of required revenues to rates per MWH. This raised two key issues. The first was the specification of a capacity factor. All else equal, the higher this factor, the higher the generation produced and so the lower the rate required to recover a given level of required revenues. The data upon which one might rely in selecting the capacity factors was quite diverse. Consider the large (over 50 kW) wind COMFIT. Historical experience in the province suggests a factor of 26%. However, NSPI has recently used a forecast value of 37%, an increase of over 40 percent. Available data suggest that wind resources differ substantially throughout the province. Thus, using an average or other mid-range value might make COMFIT wind projects uneconomic in certain areas. Taking these considerations into account, we selected factors for wind and the other COMFIT's that we believe convert required revenues to rates in a way that will reasonably facilitate project development.

The second issue raised was the treatment of year-to-year change. For all the COMFIT's except CHP, such change was accounted for by including its effects in the computation of a fixed, levelized rate applicable for 20 years. For CHP, the rate for all but fuel is also set in this way. The payment for fuel was designed to be changed periodically based on inflation and cost of diesel fuel. This removes some but not all of the risk associated with the purchase of biomass fuel. The decision to treat the CHP rate differently reflects our recognition of the fuel price risk that arises for biomass projects but not the others. The method chosen is simple and workable. It reflects costs—labor and transport—that are important in producing the fuel and has been used in a similar situation—the New Page biomass generation project. As in NSPI's FAM design, we have chosen to remove some but not all the fuel price risk, thus creating an incentive for those receiving the CHP rate to limit growth in fuel costs. We considered a full pass through of fuel costs, but rejected it primarily because it would entirely remove that incentive.

In the course of developing our COMFIT proposals we received input from stakeholders in two technical sessions, in written comments and in more informal discussions. As a result, the rates we developed changed substantially. We have also reviewed the evidence filed by intervenors and, on balance, we remain confident in the results of our modeling and with our proposed rates relative to data we have gleaned from the market on project costs. Thus, we remain comfortable in urging the Panel to adopt our recommendations.

Thank you for providing us the opportunity to make this statement. We look forward to answering your questions.