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To: Cheryl Blundon
Board Secretary
The Board of Commissioners of Public Utilities
Province of Newfoundland and Labrador
Torbay Road
St. John's, NL

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OF PUBLIC UTILITIES
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APR 28 2014

April 28, 2014

Dear Ms Blundon

ST. JOHN'S, NL

On behalf of the Atlantic Canada Chapter of Sierra Club Canada we write to request intervenor status concerning the application by Newfoundland and Labrador Hydro to purchase and install a 100MW Combustion Turbine at the Holyrood Generating station to be in service for the winter of 2014-2015.

The Sierra Club, both internationally and across Canada, has long been an advocate for reducing fossil fuel consumption, and thereby reducing greenhouse gas emissions, acid rain, and ocean acidification. Similarly the Club has long been an advocate for energy conservation, and employing green renewable energy sources.

It is our understanding that the proposed Combustion Turbine will be fuelled by low grade oil. According to information provided by Newfoundland and Labrador Hydro, burning such oil at the Holyrood Generating Station produces over 800,000 tonnes of carbon dioxide (CO₂) annually. These greenhouse gas emissions are released into the atmosphere upwind of Conception Bay and the urban population residing on the North-east Avalon. Such emissions have been proven to contribute to global warming, the warming of ocean surface temperatures and ocean acidification.

This proposal, it would appear, runs contrary to stated greenhouse gas reduction policies and goals of the Government of Newfoundland and Labrador to reduce greenhouse gas emissions in the province.

This proposal would probably seem more plausible if there were no other energy generation or conservation options available. However the technological and administrative advances in many other jurisdictions over the past 25 years have revealed many energy generation and conservation opportunities which have few, if any, negative environmental side effects. These include: off peak rates, much expanded energy efficiency programs and technologies, energy audits and retrofits, and the development of green renewable energy generation technologies which do not produce greenhouse gas emissions. At present there is little information available on the energy efficiency profile of existing buildings and dwellings in Newfoundland and Labrador.

Administratively the development of Feed in Tariff legislation in Germany and many other jurisdictions has permitted private citizens, groups, and companies to generate green electricity for their own use and sell the surplus on the electricity grid. This legislation has been recognized by the International Panel on Climate Change (IPCC) as a major factor in raising public awareness of global warming and climate change. Introducing such legislation in Newfoundland and Labrador could contribute much to develop self financing, small scale, electricity production by individuals and administrative bodies such as municipalities. This has proved successful in two other Canadian jurisdictions, Ontario, and Nova Scotia. Several other Canadian provinces give credit to surplus electricity produced for their electricity grids.

In Newfoundland and Labrador decentralized small scale electricity production would reduce risks of large power outages from single source providers, while offering many communities self

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sustaining energy independence. This would be of particular importance to the Avalon Peninsula which with its comparatively large population and few electricity producing sources on the peninsula beyond the Holyrood Thermal Generating Station.

Research on the compatibility of various energy sources on the electricity grid have shown that wind and solar energies to be a complementary fit with hydro power. (See Mark Jacobson and Mark Delucchi, "Providing all global energy with wind water and solar power, Part 1: Technologies, energy sources, quantities, and areas of infrastructure and materials," Energy Policy, Elsevier Ltd., 2010.)

Newfoundland and Labrador has some of the best wind supplies in North America. For example, a comparison of wind energy densities between Ottawa, Ontario and St. John's, Newfoundland reveals that St. John's has approximately 10 times the wind density than Ottawa. (See Canada's Wind Energy Atlas online). The price of wind generated electricity in Ottawa, Canada's capital city -including a modest profit - is 11.5 cents a kilowatt hour.

The major comparative advantages of this technology for Newfoundland and particularly the Avalon Peninsula are location and fuel costs. Wind turbines can be erected relatively near transmission lines and consumers. There are no directly associated fuel costs. Given the rapidly changing face of electricity-generating technologies combined with potential energy efficiency savings from effective off peak rates (recent Ontario Energy Board statistics show Ontario households use almost two thirds of their electricity during off-peak hours) to consider an expanded thermal generating option as a "solution" seems incongruous at this time. We, as stewards of the ocean around us and as responsible citizens need to do our part and the right thing. We have the resources : wind, water, and sun. As a long term solution energy efficiency, combined with additional wind energy infrastructure appears to be the least cost option in this situation.

Sincerely



Fred Winsor

Conservation Chair
Atlantic Canada Chapter
Sierra Club Canada
St. John's, Newfoundland