



Honourable David Morse
Minister of Environment
Nova Scotia Department of Environment

April 1, 2009

Dear Minister Morse:

Thank you for the opportunity to comment on the Climate Change Action Plan (CCAP), released in January, 2009. We are pleased that the province plans to reduce greenhouse gas (GHG) emissions to at least 10% below 1990 levels by 2020. We encourage your government to act decisively in reaching this very attainable target. We also suggest that a comprehensive approach is used to produce the greatest benefit to the environment over the long term.

In our opinion, this comprehensive approach should recognize that our dependence on fossil fuel for electricity generation leaves us with per capita emissions levels that are, in some cases, much greater than those of other provinces. Rather than seeing this as a challenge, we should seize the opportunity to build new domestic, and export, green energy sectors and become Canada's leading "Green Energy Province". We propose the following strategic actions to ensure that this opportunity is not missed, and that the provincial GHG emission reduction targets are met.

Mapping Nova Scotia's Energy Assets

A comprehensive Renewable Energy Atlas for Nova Scotia with maps for solar, tidal, wind, biomass, and geothermal resources should be developed. Similar to high resolution maps used by Nova Scotia's offshore energy industry, these maps will identify and quantify indigenous clean energy resources. This Renewable Energy Atlas would inform and shape decision making around increased production of renewable energy. Important first steps have been taken: Nova Scotia Department of Energy has collaborated with Green Power Labs to initiate high resolution mapping of the solar resource within the province; also, advanced maps of wind resource were developed by Nova Scotia Community College.

Ensuring Required Energy Infrastructure is in Place

Once the resources have been quantified, the next step is to facilitate the development of feasible clean energy production projects. Power transmission infrastructure should be upgraded to facilitate the development of utility-scale renewable energy production and export, as well as reliable

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integration of decentralised energy generation. On this issue our thoughts around multiple energy sources and decentralized generation mirror those of your department. Existing concerns around renewable energy and transmission capacity should be addressed to enable more renewable energy on the grid. At Green Power Labs, we share the Province's concern surrounding grid stability. For this reason, we are working with national and international partners on solar energy monitoring and forecasting tools which allow power producers and utilities to effectively manage renewable energy production.

Advancing Community Energy Planning

We encourage your department to engage Nova Scotia communities as critical partners in reducing GHG emissions. Community energy plans could enhance the capacity of municipalities to implement energy efficiency and renewable energy at the community level, and support smart growth principles. Community energy planning is an integrated approach to ensure that a local community of any size utilizes the optimal mix of high-efficiency co-generation and/or renewable energy sources backed up by the power grid and natural gas utilities. This allows for cutting transmission losses and charges, as well as increasing the robustness of the system. Energy sources and production capacity must 'match' community energy needs. Specifically, we should clearly identify the major energy end uses in Nova Scotia (like heating and transportation), energy sources available (including emerging technologies - today and tomorrow) and propose the best match between energy end users and energy sources.

Our communities need planning tools to meet energy demand through the integration of energy efficiency measures and sustainable energy technologies, while making the best use of local on-site renewable resources. In our work we focus on the solar energy resource; solutions proposed for urban communities like Dalhousie University campus could be easily replicated in large or small communities throughout Nova Scotia. Briefly, our step-by-step action plan for assessing the role of solar energy generation within the community energy mix, and for broad-scale deployment of solar technologies, begins with building regional solar resource maps to understand the spatial and temporal distribution of the regional solar resource. Combined with solar suitability assessments, the solar energy generation potential of buildings and houses can be defined, and the applicable solar technologies, recommend system configurations, return on investment, and payback period can be identified to provide support in community uptake of clean energy solar technologies.

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In closing, we encourage the Province to approach this challenge as an environmental and economic opportunity for Nova Scotia, and to realize the Province's commitment to protecting our environment by creating new industries and opportunities for Nova Scotians. The knowledge, expertise, and creativity required to find innovative clean energy solutions for Nova Scotia are here.

We look forward to having a more detail discussion at your convenience.

Best Regards,

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