
In reply please quote our file number:

Lana Myatt
Nova Scotia Power Incorporated
1223 Lower Water Street
Halifax NS B3J 3S8
Lana.Myatt@nspower.ca

Dear Ms. Myatt:

The Province of Nova Scotia is committed to maintaining a healthy environment for the benefit to our citizens. Nova Scotia's approach to reducing air pollutant and greenhouse gas emissions is not in isolation but part of a larger comprehensive plan to move away from coal-based electricity generation to cleaner energy sources. This path forward helps to shield us from volatile fuel markets while protecting the environment and the health of our citizens. Nova Scotia's commitment to continual progress on emission reductions is evident when you consider the recent amendments to the Greenhouse Gas Emission (GHG) Regulations and the negotiation of a pending equivalency agreement with the federal government relating to GHG reductions from coal-fired electricity.

Nova Scotia Environment (NSE) is committed to continual reductions in air pollution to preserve the environment and protect the health of all Nova Scotians. Environmental impacts from air pollution, such as acid rain can damage vegetation, watercourses and fish habitat, as has happened in south western Nova Scotia. Health impacts from air pollution range widely from cardiac and respiratory illness to cancers and even premature death. Air pollution can make it harder to breathe, and can trigger preexisting respiratory illness such as asthma and chronic obstructive pulmonary disease. Moreover, air pollution can incite episodes of angina, irregular heart patterns and even heart attacks. The detrimental health impacts of air pollution are of significant concern to individuals of higher risk such as our children, the elderly, and individuals with pre-existing health concerns such as diabetes. According to a 2008 Canadian Medical Association Study¹, economical and health care costs are significant impacts from air pollution, for example, Nova Scotia is projected to have millions of dollars in costs attributed to air pollution over the next few decades including over a hundred premature deaths.

Through the Minister of Environment, NSE has the mandate to preserve and protect the environment, including protected areas; and to deliver on the goals outlined in the Environmental Goals and Sustainable Prosperity Act (EGSPA). The Minister of Environment is also the Executive Council lead on matters relating to climate change. As such, NSE welcomes the opportunity to provide feedback on the draft environmental assumptions as filed on March 14, 2014 as part of the 2014 IRP Assumptions and Analysis Plan.

¹ Illness Cost Of Air Pollution, 2008, Canadian Medical Association. Submitted by DSS Management Consultants

NSE believes that the scenarios related to GHG emissions are reasonable for both trajectories. Both scenarios accurately reflect emission reductions required out to 2030, consistent with the *Greenhouse Gas Emission Regulations* as amended in 2013 and the intended successful negotiation of an equivalency agreement with the federal government. The assumed reductions envisioned after 2030 are consistent with Government's long term goal for continual reductions. It is useful to be aware that the intended successful negotiation of an equivalency agreement would allow for Provincial regulations to govern to 2030. NSE would like to highlight that a 50 year end of life scenario of unit closures to mimic the federal GHG coal regulations would be within the realm of reasonable possibilities. NSE would also like to highlight the upcoming federal natural gas regulations for GHG reductions and encourages NSPI to adequately account for that within the analysis.

Nova Scotia is committed to additional regulated reductions in air pollutants from the electricity sector. Moreover, NSE is committed to amending the *Air Quality Regulations* to include new reduction requirements after 2020, for SO_x, NO_x and mercury.

"Scenario A" is a realistic assumption that depicts reductions that encompass both the current *Air Quality Regulations* and the reductions envisioned within the Amendment to Greenhouse Gas and Air Quality Emission Regulations Discussion Paper ("the Paper") (NSE June 2013) then continues the trend of reductions out to 2040. "Scenario B", however, which depicts no further reductions in air pollutants after 2020, is not within the reasonable trajectory range of future environmental constraints and requirements.

According to the approved Terms of Reference for the IRP, the objective of the IRP is, "To develop a long-term Preferred Resource Plan that establishes the direction for NS Power to meet customer demand and energy requirements, and environmental obligations in a cost effective, safe and reliable manner across a reasonable range of foreseeable futures...". "Scenario B" is not a reasonably foreseeable future, and would not result in NS Power meeting its environmental obligations.

"The Paper" (NSE 2013) was a forum for all individuals, businesses and stakeholders to be able to voice their views and provide feedback on the policy direction of air quality reductions within the electricity sector. NSE values all feedback provided from that public-wide opportunity. NSE is committed to continual air pollution reductions and re-iterates the commitment to additional air pollution reductions after 2020 for NO_x, SO_x and mercury as described.

Moreover, under the Air Quality Management System, the Government of Canada intends to introduce regulatory standards to reduce air pollution from coal-fired electricity generation. Such standards are envisioned to be benchmarked against leading jurisdictions and provide good baseline reductions. Thus, both levels of Government are committed to continual reductions after 2020.

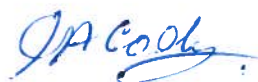
Given scenario B is outside the reasonable range of possible air pollution trajectories, NSE suggests replacing it with a more realistic scenario similar to the approach taken with the GHG emission assumptions. NSE recommends that Scenario B reflects the air pollution reduction trajectory as depicted in "the Paper" (Scenario A) until 2030, then assumes no continual reduction after 2030.

NSE appreciates NSPI's goal to reflect realistic options and constraints with the IRP analysis plan. NSE also acknowledges that certain plants and units face technical and space barriers for certain control technologies. However, NSE believes the environmental control technology assumptions as outlined on page 21 of the Assumptions are limited in scope. Certain plants or units are restricted to a single technology option; for example, only a Selective Catalytic Reduction is highlighted for Trenton 6 where sulphur control technology may also be an option. Co-firing may not be the only choice at Trenton 5 where SOx or NOx controls may be considered. NSE suggests that a broader look at a diversity of options for various types of abatement equipment would make for a more robust analysis.

NSE would also like to have additional context around "municipal solid waste" supply scenario. It should be noted that any such projects are subject to environmental regulations and the appropriate environmental approvals.

NSE appreciates the opportunity to provide feedback, input and comments on the environmental aspects within the Draft Assumptions and Analysis Plan for the 2014 IRP Analysis.

Yours truly,



Elizabeth A. Cody
Deputy Minister

c: Murray Cooligan, Deputy Minister of Energy