



Scotian Carbon Services

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**Submission to Department of Energy, Province of Nova Scotia
Regarding: Draft Renewable Electricity Regulations (Electricity Act)
July 23, 2010**

RECOMMENDATION:

Page 3, Definition “renewable low impact electricity”

Ensure that Nova Scotia’s definition of “renewable low impact electricity” will meet international and domestic criteria for the terms “renewable” and “low carbon impact”. A list of criteria that meet the standard would produce a more precise and practical definition than the draft document’s catalogue of existing technologies.

Introduction

Scotian Carbon Services is a Canadian Standards Association (CSA) certified greenhouse gas inventory quantifier. We are consultants in carbon management and carbon credit sales. Our staff has international experience in carbon credit project management and credit brokerage. As a result of our involvement in carbon accounting and in the credit markets we feel it is important that Nova Scotia design their renewable electricity regulations to a rigorous protocol that allows the Province to maximize the benefits of their investment in renewable electricity and low carbon impact policies.

Environmental Goals and Sustainable Prosperity Act

The province has established some of the most aggressive ghg reduction targets in Canada and has set those targets as law in the EGSPA. The implementation of the Renewable Electricity Regulations has been instituted to address the need for a serious strategy to support the goal and to build an infrastructure that will bridge the transition to a low carbon future.

Scotian Carbon Services cautions the government to ensure that all activities and actions that are set out in the new Regulations will help them meet the goals of EGSPA. Otherwise the investment will be wasted and an undue burden will be placed on the ratepayers.

To that end, we wish to point out that global standards and protocols regarding the combustion of biomass for electricity negate the carbon neutrality of same. In fact the Intergovernmental Panel on Climate Change (IPCC) cautions that biomass be treated separately from National GHG Inventory

accounting. When reporting official emissions and emission reductions, the province of Nova Scotia will be required to comply with an international or national reporting standard that could likely negate most of the investment in biomass as a ‘renewable’ electricity source and negate the expected emission reductions from that source.

Therefore, the investment in biomass combustion for electricity might not pay off in credible emission reductions that could be counted toward EGSPA targets.

Devaluing Nova Scotia’s Renewable Electricity Exports

Similarly if biomass is included in the mix of ‘renewables’ on the Nova Scotia power grid, the value of Nova Scotia’s renewable energy will be diminished by jurisdictions that have established a rigorous criteria for the definition of renewable energy. Not only would the electricity generated from biomass be devalued, but because of the nature of electricity bundles, the value of entire renewable supply from Nova Scotia could be devalued as a result of the inclusion of ambiguous biomass sources.

Jurisdictional Standards

When Nova Scotia accounts for their greenhouse gas emissions and reports their reductions, they should follow a protocol that is integrated with domestic and international standards. Most standards isolate biomass combustion reporting because of its ambiguous carbon value.

For instance, The Climate Registry protocol is based on the widely-used global standard World Resources Institute and ISO 14064 standards and has been promoted by the province’s Climate Change Division. The Climate Registry protocol dictates that emissions from biomass be reported separately from all other Scopes. All international ghg reporting protocols treat biomass combustion as a standalone item, because of the complexity of accounting for combustion emissions versus sequestration factors and land use methodology.

From the guide, *The Climate Registry – General Reporting Protocol*, pg 49:

5.4 Reporting Emissions from Biomass Combustion

The combustion of biomass and biomass-based fuels (such as wood, wood waste, landfill gas, ethanol, etc.) emit GHGs. Unlike other fuels, you must track CO₂ emissions from biomass combustion separately from your other direct emissions. You must report CO₂ emissions from biomass combustion separately from the scopes. CO₂ emissions from biomass combustion are reported separately because the carbon in biomass is of a biogenic origin—meaning that it was recently contained in living organic matter—while the carbon in fossil fuels has been trapped in geologic formations for millennia. ***Because of this biogenic origin, the Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories requires that CO₂ emissions from biomass combustion be reported separately.*** [emphasis added]

Conclusion

By including biomass combustion for electricity in the mix of renewable energy both for meeting an RPS and for receiving incentives and funding, we are concerned that a technical misstep may result in 2 negative outcomes for the Province:

1. That the province will not be able to count emission reductions from biomass combustion toward their EGSPA goals and therefore the investment in biomass will be wasted as a climate change mitigation measure and emission reduction strategy.
2. By including biomass as a renewable source on the grid, the entire renewable supply will be devalued for export into jurisdictions that dismiss the carbon neutrality of biomass. (see note A)

Additional Studies and Notes

Note A

i)

Study finds biomass power not carbon neutral

by Martin LaMonica

http://news.cnet.com/8301-11128_3-20007484-54.html

Forested regions around the world are pursuing biomass as a renewable energy source but a study finds that the carbon footprint from burning biomass can be worse for global warming than coal.

The Manomet Center for Conservation Sciences on Thursday published the findings of a six-month study to measure the greenhouse gas impacts of using biomass, which, in many cases, does not meet claims of being "carbon neutral" over short periods of time.

The report was commissioned by the Massachusetts Department of Energy Resources, which said it will revise its regulations in response. "We can begin the process of refining our renewable energy regulations to provide incentives only for biomass energy that truly reduces our greenhouse gas emissions and protects our forests," said Massachusetts Department of Energy Resources Commissioner Phil Giudice, in a statement.

ii)

From the Government of Massachusetts website:

http://www.mass.gov/?pageID=eoeepressrelease&L=1&L0=Home&sid=Eoeea&b=pressrelease&f=100610_pr_biomass_study&csid=Eoeea

PATRICK-MURRAY ADMINISTRATION RELEASES BIOMASS SUSTAINABILITY STUDY



Report shows that *electricity from biomass compares unfavorably with coal* [emphasis added], while biomass for heat and cogeneration reduces greenhouse gas emissions over time; Department of Energy Resources to revise regulations for state's Renewable Portfolio Standard based on study

Note B

Environmental Impact Assessment Review

Volume 29, Issue 3, April 2009, Pages 165-168

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Most guidance for carbon footprinting, and most published carbon footprints or LCAs, presume that biomass heating fuels are carbon neutral. However, it is recognised increasingly that this is incorrect: biomass fuels are not always carbon neutral. Indeed, they can in some cases be far more carbon positive than fossil fuels.

This flaw in carbon footprinting guidance and practice can be remedied. In carbon footprints (not just of biomass or heating fuels, but all carbon footprints), rather than applying sequestration credits and combustion debits, a 'carbon-stock change' line item could be applied instead. Not only would this make carbon footprints more accurate, it would make them consistent with UNFCCC reporting requirements and national reporting practice.

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