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JUL 25 2016

Peter Ritchie
pritchier42@gmail.com

Dear Mr. Ritchie:

As Minister of Energy, the Premier has asked me to respond to your April 20, 2016 and June 2, 2016 emails regarding the use of biomass for electricity production. This response was prepared by the Nova Scotia Department of Natural Resources, Nova Scotia Environment, and the Nova Scotia Department of Energy.

The province is involved in climate change policy development nationally and internationally; and through these venues monitors the ongoing science related to biomass energy greenhouse gas (GHG) emissions. Nova Scotia, as in other jurisdictions, adheres to the GHG emission reporting guidelines as outlined by the Intergovernmental Panel on Climate Change (IPCC). The IPCC currently does not report GHG emissions from biomass combustion in the energy sector. These emissions are accounted for in the Agriculture, Forestry and Other Land-Use (AFOLU) sector.

We recognize that the science around forest biomass carbon accounting is evolving. The Manomet report highlights the need for careful scrutiny of proposed forest biomass for energy projects, and we intend to use this report (as well as other relevant research) as a consideration moving forward. In addition, we have amended the *Renewable Electricity Regulations* so that the Port Hawkesbury biomass plant is no longer a "must-run" facility, and the Department of Natural Resources has made available a new interactive map viewer to improve public engagement around planned forest harvests in Nova Scotia woodlands.

In your letter you specifically request clarification on the biomass cap in regulations. The interpretation put forward is not what was intended with the regulation. The cap is firm at 350,000 dry tonnes. The reference to the annual average harvest is meant to reduce the biomass cap further if harvesting for other products (e.g., sawlogs or pulp) exceeds the annual average. It should be noted that the total harvest of primary forest products for all uses from Nova Scotia forests in 2014 was approximately 60 percent of the harvest rates of a decade ago, and remains within sustainable harvesting levels.

Yours very truly,

A handwritten signature in blue ink that reads "Michel P. Samson".

Michel P. Samson
Minister

c. Honourable Stephen McNeil

From: Peter Ritchie

Date: Tue, Jun 21, 2016 at 10:32 AM

Subject: No response from Minister Samson?

To: "to: Energy Correspondence" <ENCORR@novascotia.ca>, "Minister, Energy" <energyminister@gov.ns.ca>, michelsamson@ns.sympatico.ca, premier@gov.ns.ca, stephenmcneil@ns.aliantzinc.ca, Minister.Environment@novascotia.ca, margaretmillermmla@bellaliant.net, FinanceMinister@novascotia.ca, Antigonish MLA Office <office@delorey4antigonish.ca>, Sean.Fraser@parl.gc.ca
Cc: Jean LaRoche <jean.laroche@cbc.ca>, Bob Murphy <Bob.Murphy@cbc.ca>, Tim Bousquet <tim@halifaxexaminer.ca>

Good morning,

I am writing in follow up to my letter to Energy Minister Michel Samson, dated April 20, 2016 (see attached). It has been two months since I contacted Minister Samson and I have yet to receive a response from him or his representative(s). I appreciate the fact that the minister is a very busy person; however, given the serious nature of the issues addressed in my letter, I would have thought a considered, timely response to be an appropriate courtesy.

How the government of Nova Scotia chooses to address CO2 emissions, as it relates to energy production in this province, should be of serious concern to all Nova Scotians. When there is clear evidence that biomass-fuelled electricity produces more CO2 emissions than even coal, how can the Nova Scotia government endorse this form of electricity as 'green' under government-mandated limits for renewable electricity production?

Despite the rescission of the 'must run' legislation governing the operation of NSPI's Point Tupper facility, this boiler continues to consume both primary and secondary biomass to produce electricity which unequivocally releases more CO2 than a comparable coal-fired facility. How can government endorse this, given the facts?

Again, I respectfully ask that Minister Samson directly respond to the questions I clearly posed in my April 20th letter.

Thank you for your attention to this matter.

Sincerely,
Peter Ritchie

April 20, 2016

Hon. Michel Samson
Minister for the Department of Energy
Joseph Howe Building, 1690 Hollis Street,
P.O. Box 2664, Halifax, NS
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Minister Samson,

Thank you for your letter dated April 15, 2016, written in response to my March 2, 2016 letter, regarding the ongoing practice of using biomass to generate electricity in this province. I appreciate your willingness to personally address this very important issue. I hope you will afford me the courtesy of responding, directly, to the questions I raise in this letter.

You began your letter with the statement that you have, "...heard from Nova Scotians, loud and clear, that they want less primary forest biomass used to produce electricity". With respect, sir, I believe that if this is what you have truly heard, then perhaps you have not been listening closely enough to what Nova Scotians are *actually* saying.

The almost 30,000 people who have signed the anti-biomass petition, in which you are named, are not saying they want *less* harvest of biomass for electricity. In fact, they are saying that they want the complete cessation of this destructive practice. The many editorials I have read and the media coverage which I have followed, all demonstrate a strong public will to stop, altogether, the harvest of biomass for electricity production in this province.

In your letter you make reference to the cap on how much biomass can be harvested annually for electricity production, as prescribed by the *Renewable Electricity Regulations*, and that this cap has not been exceeded, to date. This cap of, "No more than 350 000 dry tonnes annually of primary forest biomass over the average amount of primary forest biomass consumed annually in the Province for the years 1995 to 2005, that average being 3.285×10^6 dry tonnes..."¹ seems unnecessarily complicated, as stated. I interpret the legislation, as written, to mean a cap of no more than 3.285×10^6 (+350 000) dry tonnes annually, or 3 635 000 dry tonnes per year. However, this is surely not correct as this value would be ridiculously large and serve little practical purpose as a realistic cap, under any meaningful analysis. As you are, no doubt, familiar with the legislation, could you please clarify this issue for me and, more importantly, define the empirical evidence used to determine the actual size of this cap? This would be very helpful in understanding whether, or not, the cap is scientifically valid and if it has, or has not, been exceeded.

There is now a well established body of scientific evidence which clearly demonstrates that burning biomass to generate electricity, as it is currently practised in this province, is far more destructive than burning even the dirtiest of fossil fuels - coal - to generate electricity. For confirmation of this fact, I would direct you to the work of Dr. Mary Booth, et.al., Dr. Timothy Searchinger, and to the seminal Manomet Study of 2010 (all attached). Even based on a strictly theoretical analysis of net energy value, carbon content and moisture content, the kind of biomass fuel used at the Point Tupper generation facility can be readily shown to produce **150% more CO2** than electricity generated from burning coal (see Ritchie, attached). By any reasonable definition, this cannot be considered 'green' electricity, yet NSPI is able to claim 'green' credit for this electricity under Nova Scotia's government-mandated limits for renewable electricity production.

How can this be the case? At a time when Canada, along with 195 other countries, has committed to reducing its green house gas emissions, how can the Nova Scotia government actively support the generation of electricity from a fuel which is (at least) 50% more CO₂-intensive than coal? At a time when carbon pricing is finally set to become a national priority, how can Nova Scotia justify the attendant costs, ultimately borne by ratepayers, which will come with this essential price on carbon?

I applaud the government's recent decision to amend the so-called 'must run' legislation which previously governed the operation of the Point Tupper biomass boiler; however, this can only be considered a very preliminary step, in light of the evidence I have cited above. I would like to know what concrete action the government intends to pursue in the elimination of the unnecessary and gravely damaging emissions which continue to be released by the Point Tupper facility. As you aptly point out, with further domestic wind energy and Muskrat Falls hydroelectric energy due to 'come on line' in the near future, where is the need for *any* dirty biomass electricity in Nova Scotia?

Time has run out for using ill-adapted fuel sources, like biomass, to produce electricity; there are far better options at our disposal. All reasonable efforts to stem the release of CO₂ into the atmosphere must be pursued now; it is the mandate of a responsible government to protect the well being of the electorate and the environment in which they live.

Thank you for your attention to this matter. I look forward to your response.

Sincerely,



Peter Ritchie
Antigonish County, NS

cc: Premier Stephen MacNeil
Hon. Margaret Miller, Minister for the Environment
Hon. Randy Delorey, Minister for Finance
Hon. Sean Fraser, MP for Central Nova

¹Renewable Electricity Regulations Made Under Section 5 of the *Electricity Act* S.N.S. 2004, c. 25 O.I.C. 2010-381 (October 12, 2010), N.S. Reg. 155/2010 as amended up to O.I.C. 2014-26 (January 28, 2014), N.S. Reg. 14/2014