

Biomass: Nova Scotia's questionable claim to be meeting legislated standards for renewable energy production.

Recent media reports detailing apparently unlawful harvesting of 'old growth' hardwood stands in Guysborough County, (see: [Chronicle Herald, Feb 23rd](#) and [CBC March 2nd](#)) raise questions about the ability and willingness of the Department of Natural Resources to effectively manage our forest resources.

On March 15 the [Chronicle-Herald](#) reported that Port Hawkesbury Paper has stated that 73 per cent of the hardwood cut in the Loon Lake area was used to fuel its co-gen facility.

This in turn reminds us that because science has shown that wood cannot be as 'green' energy, we have to ask whether Nova Scotia Power Incorporated (NSPI) can meet the legislated standard for 'renewable' electricity production.

The Healthy Forest Coalition urges you, the Members of the Legislature, to debate whether the government should treat biomass as a 'renewable' energy source in its renewable electricity regulations.

In early 2016, Nova Scotia Power Incorporated (NSPI) claimed that it had achieved (see: [NS Power news release Jan 26, 2016](#)) the government-mandated standard for 'renewable' electricity production for the year 2015 (i.e., 25% of total generation) (see: [Renewable Electricity Standard 2015](#)).

This was, ostensibly, a mark of progress for the Government of Nova Scotia in its attempt to enforce the standards set out in Section 5 of the Electricity Act.

However, not all of the electricity produced by NSPI in 2015 was, in fact, 'renewable' under the definition prescribed by Section 5 of the Electricity Act.

Instead of achieving a total proportion of energy produced by 'renewable' resources of 26.6%, NSPI had achieved only 23.8%, slightly less than the legislated 25%. That was because 2.8% of NSPI's total generation came from biomass.

Biomass, according to well established, peer-reviewed science, is not 'green energy'.

Quoting from the legislation:

“renewable low-impact electricity” means electricity produced from any of the following:

- (i) solar energy,*
- (ii) wind energy,*
- (iii) run-of-the-river hydroelectric energy,*
- (iv) ocean-powered energy,*
- (v) tidal energy,*
- (vi) wave energy,*

(vii) biomass that has been harvested in a sustainable manner,

(viii) landfill gas,

(ix) any resource that, in the opinion of the Minister and consistent with Canadian standards, is able to be replenished through natural processes or through sustainable management practices so that the resource is not depleted at current levels of consumption.

An objective analysis of this definition leads to the inevitable conclusion that just about any resource could qualify as producing "renewable low-impact electricity", item 9 (ix), so long as it is the Minister's **opinion** that this resource is, "not depleted at current levels of consumption".

As such, it is not **fact** which ultimately determines whether a resource is 'renewable', but rather the **opinion** of the Minister. Well documented evidence demonstrates that, under the language of the legislation, biomass does not qualify as a source of "renewable low-impact electricity".

In conclusion, because biomass does not satisfy the government's own definition of a 'renewable' energy resource, it stands to reason that NSPI will fail again, in 2020, to meet the legislated standard of producing 40% of its total generation using 'renewable' resources.

According to NSPI's own projections, in order to achieve this standard, the utility will need to have increased its hydro and tidal capacity to 22% and its biomass capacity to 7%.

Exactly how is the utility going to achieve this with the ongoing delivery delays of both Muskrat Falls and Fundy tidal energy, not to mention needing to more than double its current biomass output?

For a full explanation of the reasoning supporting these conclusions, please read the attached letter, titled "Letter to Jason Hollett, et. al.". This letter was originally accompanied by four supporting documents which, for the sake of memory space, have been included as hyperlinks here:

[biomass vs. coal poster](#)

<http://www.pfpi.net/wp-content/uploads/2014/04/PFPI-Biomass-is-the-New-Coal-April-2-2014.pdf>

<http://www.pfpi.net/wp-content/uploads/2017/03/Scientists-bioenergy-letter-March-15-2017.pdf>

<http://iopscience.iop.org/article/10.1088/1748-9326/aaac88>

*In addition to being a member of the Healthy Forest Coalition, Peter Ritchie is an energy analyst with a particular interest in carbon emissions associated with energy production and carbon sequestration as a means for mitigating climate change.