

**Review of Draft Regulations  
Respecting Renewable Energy Standards  
made under Section 5 of Chapter 25 of the Acts of 2004,  
the *Electricity Act***

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10 November 2006

## 1. Preliminary observations

There is no mention of RPS tags in the Regulations. Since eight EMGC recommendations dealt with RPS tags (about nine percent of the EMGC's Recommendations), it is unclear why they have been omitted.

The EMGC report referred to Renewable Portfolio Standard, not a Renewable Energy Standard. Given that the term Renewable Portfolio Standard is widely used and understood, why did the province adopt its own terminology?

There is no mention of net metering and whether this will be used to meet part of the Renewable Energy Standards for 2010 or 2013.

The purpose of the Regulations is unclear – why is the province adopting the so-called Renewable Energy Standards? Is it to help the province achieve energy security? Or is it to make reductions in the province's greenhouse gas emissions? As it stands, it does little to help the province reduce its reliance on imported energy sources. Its ad hoc nature, with no consideration to coordinating the types of renewable energy being used, means it is unlikely to achieve anything like a ten percent reduction in greenhouse gas emissions.

### Glossary

LSE – Load Serving Entity

MEU – Municipal Electrical Utility

RLIE – Renewable Low Impact Electricity

RES – Renewable Energy Standard

REGF – Renewable Energy Generation Facilities

## 2. Review of draft regulations

### Interpretation

*2 (o) “renewable low impact electricity” means electric energy produced from any source of renewable energy that is able to be replenished by natural processes within a reasonable length of time, and within 80 years at the latest, and includes, but is not limited to, all of the following: ...*

Are environmental impact assessments of these (and any other technologies) to be submitted whenever REGF are proposed?

Why has 80 years been chosen as the upper limit?

### Renewable energy standard 2010

*5 (1) By December 31, 2010, and for each year thereafter, each load serving entity must supply to its customers each year with renewable low impact electricity equal to or greater than 5% of its total annual sales for that year.*

Any growth in electrical demand (i.e., increased sales) will require the LSE to increase its

volume of RLIE. This implies a one-year lag, as the volume of RLIE needed to meet the five percent target of total annual sales will not be known until the annual sales for the year are known. This should be clarified.

*(2) Each load serving entity must meet the renewable energy standard in subsection (1) by supplying renewable low impact electricity produced by a renewable energy generation facility.*

Can the RLIE be purchased from outside Nova Scotia?

*(4) To meet the renewable energy standard in subsection (1), a municipal electric utility that purchases any of its electricity supply from a person other than NSPI must ensure that a minimum of 5% of that non-NSPI electricity supply is supplied by a generator of renewable low impact electricity.*

If a MEU fails to meet this requirement, is it penalized? If the LSE that supplies the municipal electric utility fails to supply this quantity of RLIE, are the LSE, or the MEU, or both penalized?

### **Renewable energy standard 2013**

*6 (1) By December 31, 2013, and for each year thereafter, each load serving entity must supply its customers each year with renewable low impact electricity equal to or greater than 10% of its total annual sales for that year.*

The LSE must meet the five percent RLIE target by 31 December 2010. Three years later, it must add an additional five percent (by 31 December 2013). There are several issues here:

- If the ten percent target is to be met by 31 December 2013, the LSE must increase its volume of RLIE to ten percent by 1 January 2013. Since its 2013 annual production is unknown on 1 January 2013 (and will not be known until 1 January 2014 at the earliest), it is unclear how it can achieve the ten percent target by 31 December 2013.

There are several ways in which meeting the annual target can be addressed:

- Allow an IPP to anticipate the target; if there is a shortfall or excess, allow this to be reconciled in the following year.
- The LSE could announce its expected annual growth for the following year and the IPPs could prepare accordingly.
- Have a known annual target, announced several years in advance (see below).
- As mentioned earlier, it is not clear, either from the Electricity Act or these regulations, what is the purpose of the province adopting Renewable Energy Standards. This becomes clear when reading Section **6(1)**:
  - If the purpose of the RES is to mitigate greenhouse gas emissions, the target should be set annually rather than at the end of 2013. By setting the target at the end of 2013, the LSE need not meet the target until 2013 (or, more likely, 2014), meaning that the LSE is doing nothing to offset its greenhouse gas emissions between 1

January 2011 and 31 December 2013.

The RES does nothing to require an LSE to reduce its greenhouse gas emissions. To be effective, the RES should require the LSE to reduce its use of carbon intensive fuels, replacing the electricity from these sources with RLIE.

This is an important issue, since carbon dioxide emissions accumulate and stay in the atmosphere for upwards of 100 years. Reducing emissions earlier can make a greater impact than postponing the reduction to a later date.

This holds true for the 2010 target as well – the LSE (in this case, NSPI) should be required to increase its use of RLIE using an annual RES target.

- In an earlier report<sup>1</sup>, it was proposed that annual targets of, say 100 GWh, be known several years in advance to allow IPPs and LSEs to work together to simplify the incorporation of REGF into the network.

In these Regulations, it is assumed that an IPP will be able to bring its RLIE on stream within one year. The difficulties in obtaining REGF, especially wind turbines, mean that it may be impossible for IPPs (or LSEs) to meet their obligations.

In light of this, the way the annual targets are established needs to be re-evaluated.

- If the purpose of the RES is energy security, the LSE should be required to replace the electricity obtained from imported fuel sources and with electricity from indigenous sources, ideally RLIE.

By 2014, if these regulations are followed, for every 1 GWh of electrical growth in the province, 0.90 GWh can come from imported, carbon-intensive fossil fuels, while only 0.10 GWh come from indigenous RLIE. Although this will go some way towards helping the province reduce its greenhouse gas emissions, it does little to address the issue of energy security.

The province needs to recognize how precarious Nova Scotia's situation is with respect to its security of energy supply. Either these regulations need to be changed to require each LSE to meet its growth using indigenous energy sources, preferably RLIE, or other legislation must be introduced to achieve this end.

*(3) Subject to subsection (4), NSPI shall meet the renewable energy standard in subsection (1) as follows:*

*(b) acquiring the additional renewable low impact electricity to meet the standard in subsection (1) from independent power producers or from its own renewable energy generation facilities.*

The 2013 target can be met by an LSE purchasing electricity from IPPs or itself. This means that after 2010, the province's principal LSE, NSPI, can generate electricity from

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<sup>1</sup> "Review of EMGC's Recommendations for a Renewable Portfolio Standard for Nova Scotia", Larry Hughes, Kathleen Bohan, Khosrow Jafapur, Howlan Mullally, and Jaspreet Singh, Energy Research Group, Electrical and Computer Engineering, Dalhousie University, July 2003.

its own REGF.

There is nothing in the regulations that prevents Emera, the parent company of NSPI, from setting up its own IPPs or purchasing IPPs after an IPP has established a REGF.

*(4) To meet the renewable energy standard in subsection (1), a municipal electric utility that purchases any of its electricity supply from a person other than NSPI must ensure that a minimum of 10% of that non-NSPI electricity supply is supplied by a generator of renewable low impact electricity.*

See Section 5(4).

### **Renewable energy generation facility certification**

*7 (2) The Administrator shall certify a facility that supplies a load serving entity with electricity to be a renewable energy generation facility if all of the following conditions are met:*

Recommendation 36 of the EMGC report states that “*The EMGC recommends that, for all public policy purposes relating to electricity supply, Nova Scotia adopt the EcoLogo® definition of renewable low-impact electricity.*” Will this be the certification tool used by the Administrator?

*(a) the facility is located in the Province, which include marine waters in the Province;*

Does this include waters under federal jurisdiction?

*(5) The Administrator must monitor any renewable energy generation facility to ensure all of the following:*

*(ii) that the facility’s sales levels of electricity output do not exceed production supply levels.*

Who or what will be responsible for metering the output of a REGF?

### **Standard shortfall**

*13 A load serving entity who fails by December 31 to meet a renewable energy standard prescribed in Section 5 or 6 shall, within one year from that date, make up the shortfall of the renewable low impact electricity by supplying twice the amount of the deficiency.*

Section 13 appears to contradict Sections 5 and 6, which state that an LSE must meet its RES by 31 December of any year. This section recognizes the fact that it is unlikely an LSE can meet its target by the end of a calendar year as its annual sales are unknown at that time.

See below for further comments regarding the “Standard shortfall”.

## Penalties and enforcement

*14 A person is liable to a daily penalty of not more than \$500 000, if they do any of the following:*

*(a) fail to comply with these regulations;*

This is the first mention of “person” in the Regulations. It should be clarified.

Furthermore, it is unclear how **13** and **14(a)** are to be interpreted. If an LSE fails to meet a “renewable energy standard prescribed in Section 5 and 6”, will it be subject to the \$500,000 daily penalty?

Sections **13** and **14**, dealing with the LSE failing to meet its annual target, raise several other issues:

- What if no supplier of RLIE can be found?
- What if the suppliers of RLIE fail to deliver?
- What if a supplier can be found, but the price is deemed too high?
- What if the LSE offers a price that is too low?
- What if the supplier is unable to meet its annual obligation through no fault of its own, such as a year with below-average winds (in the case of a wind operator)?

## 3. Summary

This review of the proposed Renewable Energy Standard regulations raises a number of concerns that need to be addressed before they are put into force; the most serious are:

- The issue of energy security is not considered.
- There is nothing addressing climate change.
- There is not a clear, simple, straightforward way of determining annual targets.