



PO Box 1749  
Halifax, Nova Scotia  
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**Item No. 10.1.8**  
**Halifax Regional Council**  
**August 3, 2010**

**TO:** Mayor Kelly and Members of Halifax Regional Council

Original Signed by

A handwritten signature in black ink, appearing to be "Wayne Anstey".

**SUBMITTED BY:**

Wayne Anstey, Acting Chief Administrative Officer

Original Signed by

A handwritten signature in black ink, appearing to be "Mike Labrecque".

Mike Labrecque, Deputy Chief Administrative Officer

**DATE:** July 29, 2010

**SUBJECT:** Renewable Electricity Plan - Feed-In Tariff - Draft Regulations

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**ORIGIN**

- Amendments to *Electricity Act*.
- Renewable Electricity Plan issued by Department of Energy.

**RECOMMENDATION**

It is recommended that Halifax Regional Council approve the attached staff comments in respect of the Province of Nova Scotia draft Renewable Electricity Plan Regulations and direct staff to file them with the Province of Nova Scotia as HRM's official input to the said Regulations..

## **BACKGROUND**

The Province of Nova Scotia (the “Province”) has written a Renewable Electricity Plan (the “Plan”). This Plan details the goals and objectives the Province has for developing renewable electricity in Nova Scotia. In Nova Scotia today over 80% of electricity is generated from fossil fuels, including coal, which is all imported. A key target is that by 2015, the Province plans that 25% of generated electricity in Nova Scotia will come from renewable electricity. The Plan and these targets have been made law with amendments to the *Electricity Act*.

By 2020, the Province plans that 40% of electricity generation should be from renewable sources; however, this additional target has not been made law. To meet the 2015 target, the Province estimates that \$1.5 billion of capital investment will be required. To implement the Plan, and the *Electricity Act*, the Province has now written draft regulations and the Province is seeking input from the public on how well the draft regulations work at achieving the Plan’s targets and underlying principles.

## **DISCUSSION**

The draft regulations, attached, target key types of renewable electricity. These include areas like wind, tidal and natural gas. Participants that the draft regulations target for implementing these types of projects include:

1. Large Scale Projects: Large projects are targeted at Independent Power Producers (50%) and NSPI (50%). These projects are not targeted at municipalities.
2. Community Projects: This category of the draft regulations has been set aside for First Nations, not-for-profits and municipalities. These are not specialized electricity generators. However, the Province sees electricity generation opportunities. Recognizing this, the Province has created a Feed-in-Tariff (“FIT”) rate specifically for this category. A FIT rate refers to what NSPI is required to pay a group that generates and supplies electricity to NSPI under this category. The FIT rate would set as a premium rate above what NSPI charges consumers. The extra cost of this premium or “clean” electricity will be passed on to the consumer. The FIT rate, according to the draft regulations, must be approved by the Utility and Review Board.

In the Plan, the Province has set up the potential that 100 MW can be generated by this category, but has not legislated this. Annually in Nova Scotia, approximately 2300 MW’s are generated and consumed.

In addition, electricity generated from solar sources is omitted from this rate as the Province considers the cost of solar too high and feels that solar energy projects would unduly impact electricity rates in Nova Scotia. More specific comments in respect of the draft regulations are in the attached FIT submission.

**BUDGET IMPLICATIONS**

Any projects would be business ventures. Capital investment would have to be determined at that time.

**FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN**

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Project and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Project and Operating reserves, as well as any relevant legislation.

**COMMUNITY ENGAGEMENT**

Any projects would be business ventures therefore, community engagement would not be required.

**ALTERNATIVES**

The only alternative is to not engage in any FIT projects.

**ATTACHMENTS**

1. Draft Regulations.
2. Draft comments on draft regulations.

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/agenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Approved by:

\_\_\_\_\_  
[Name of Director/BU/Phone #]

**Part I Interpretation**

Citation

1 These regulations may be cited as the *Renewable Electricity Regulations*.

Interpretation

2 In these regulations,

“Act” means the *Electricity Act*;

“agricultural biomass” means biomass produced from agricultural products produced in a manner that is sustainable;

“biomass” means organic materials including material that may have been processed so as to change their size, shape, density, moisture, or purity and includes forest biomass and agricultural biomass and secondary waste by-products from their manufacturing, but excluding materials for which other diversion methods are viable and the treated by-products of manufacturing processes;

“Board” means the Nova Scotia Utility and Review Board;

“community economic-development corporation” means a corporation or association that meets the criteria prescribed by the regulations made pursuant to the *Equity Tax Credit Act*, is registered as a community economic development corporation by the Minister of Finance pursuant to Section 11 of the *Equity Tax Credit Act* and has at least 25 members;

“cooperative” means a cooperative incorporated under the *Cooperative Associations Act* that has at least 25 members;

“Department” means the Department of Energy;

“designated representative” means the person authorized to act as the representative of a renewable electricity generator and whose acts and omissions are binding on it;

“developmental tidal array” means for the purposes of clause 4A(7)(d) of the Act, two or more tidal generation devices with a capacity of greater than .5 MW each, connected to one another that will interconnect with the electrical grid through the transmission system, with an overall limit of 20 MW capacity from all such arrays;

“distribution system” means a system for conveying electricity at voltages of less than 69 kV;

“former regulations” means the *Renewable Energy Standard Regulations*;

“GWh” means gigawatt hours;

“independent power producer” means a renewable electricity generator that owns or operates an electricity generation facility in the Province provided that

- (i) no load serving entity in combination with any affiliate of the load serving entity, holds more than forty nine percent of the securities entitled to vote for the election of its directors, and
- (ii) it sells electricity
  - (A) in the Province to public utilities for retail sales to the utilities' customers, or
  - (B) for export outside of the Province;

“load serving entity” means any one of the following:

- (i) NSPI,
- (ii) a municipal electric utility that purchases any or all of its electricity supply from a supplier other than NSPI,
- (iii) an independent power producer who exports electricity;

“MWh” means megawatt hours;

“municipality” means a regional municipality, town or county or district municipality;

“Minister” means the Minister of Energy;

“municipal electric utility” means the electrical utility for any one of the following:

- (i) the Town of Antigonish,
- (ii) the Town of Berwick,

- (iii) the Town of Canso,
- (iv) the Town of Lunenburg,
- (v) the Town of Mahone Bay,
- (vi) The Electric Light Commissioners for Riverport, in the County of Lunenburg;

“NSPI” means Nova Scotia Power Incorporated;

“not for profit body corporate” means a corporation operated on a not for profit basis where no member, officer, director or employee of the corporation may share in any operating surplus of the corporation;

“pre-2002 renewable electricity” means all renewable electricity owned, contracted for in Nova Scotia and operated by a load serving entity prior to January 1, 2002;

“primary forest biomass” means biomass produced from primary forest products harvested in the Province and first used as a fuel;

“primary forest products” has the same meaning as provided in the *Forests Act*;

“renewable electricity” includes all pre-2002 renewable electricity and all renewable low impact electricity generated after December 31, 2001 and imported sources of renewable electricity;

“renewable electricity generator” means a person who owns or operates a renewable electricity generation facility in the Province;

“renewable electricity generation facility” means a facility that generates renewable low impact electricity and has received all approvals and permits required under these regulations or any other applicable enactment;

“renewable electricity standard” means a target share or amount of renewable low impact electricity to be supplied by a load serving entity;

“renewable low impact electricity” for the purposes of section 3A of the Act and these regulations, means electricity produced from:

- (i) solar energy,
- (ii) wind energy,
- (iii) run-of-the-river hydroelectric energy,
- (iv) ocean-powered energy,

- (v) tidal energy,
- (vi) wave energy,
- (vii) primary forest biomass harvested in a sustainable manner;
- (viii) agricultural biomass;
- (ix) landfill gas;
- (x) the following sources so long as they are able to be replenished by natural processes within a reasonable length of time, and within 80 years at the latest:
  - (A) biomass from an aquatic or ocean source;
  - (B) liquid biofuel and other biogas energy; and
- (xi) any other source that is able to be replenished by natural processes within a reasonable length of time, and within 80 years at the latest;

“run-of-the-river hydroelectric electricity” means electricity generated from flowing water that causes minimum environmental effect on the river course and may include the use of a dam structure;

“small-scale in-stream tidal” for the purpose of clause 4A(7)(c) of the Act means a tidal or wave generation device, with a capacity of .5 MW or less, that will interconnect with the electrical grid through the distribution system;

“transmission system” means a system for conveying electricity at voltages of 69 kV or more.

3(1) A corporation shall be deemed to be an affiliate of another corporation if one of them is the subsidiary of the other or if both are subsidiaries of the same corporation or if each of them is controlled by the same person.

(2) A corporation shall be deemed to be controlled by another person or by two or more corporations if

- (a) voting securities of the first-mentioned corporation carrying more than fifty per cent of the votes for the election of directors are held, otherwise than by way of security only, by or for the benefit of the other person or by or for the benefit of the other corporations; and
- (b) the votes carried by such securities are entitled, if exercised, to elect a majority of the directors of the first-mentioned corporation.

(3) A company shall be deemed to be a subsidiary of another corporation if

(a) it is controlled by

(i) that other, or

(ii) that other and one or more corporation each of which is controlled by that other, or

(iii) two or more corporations each of which is controlled by that other; or

(b) it is a subsidiary of a corporation that is that other's subsidiary.

#### Minister's powers

4 The Minister may direct the Board to inquire into and report on any matter under the Act or these regulations that the Minister considers necessary or advisable to carry out effectively the intent and purpose of the Act.

## **Part II Renewable Electricity Standard**

### Renewable electricity standard 2011

5 (1) In each of the calendar years 2011 and 2012, each load serving entity must supply its customers with renewable low impact electricity from independent power producers in an amount equal to or greater than 5% of its total sales for that year.

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

(3) To meet the renewable electricity 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 renewable electricity generator.

### Renewable electricity standard 2013

6(1) Each year beginning with the calendar year 2013, each load serving entity must supply its customers with renewable low impact electricity in an amount equal to or greater than 10% of its total sales for that year.



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

(3) Subject to subsection (4), NSPI must meet the renewable electricity standard in subsection (1) as follows:

(a) by continuing to supply 5% of its total annual sales from an independent power producer ; and

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

(4) To meet the renewable electricity 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 renewable electricity generator.

#### Renewable electricity standard 2015

7(1) Each year beginning with the calendar year 2015, each load serving entity must supply its customers with renewable electricity in an amount equal to or greater than 25% of its total sales for that year.

(2) Subject to subsection (3) each load serving entity must meet the renewable electricity standard in subsection (1) by supplying renewable electricity produced by a renewable electricity generation facility.

(3) Subject to subsection (4), NSPI must meet the renewable electricity standard in subsection (1) from eligible renewable electricity supplies including the following:

(a) by acquiring at least an additional 300 GWh from independent power producers in addition to the renewable electricity required to meet the requirements of Section 5 and 6;

(b) by acquiring no more than 150 GWh from co-firing no more than 150,000 dry metric tonnes of forest biomass;

(c) through the contribution of any GWhs acquired under the program provided under section 4A of the Act;

(d) through the contribution from a load-serving entity's owned or operated renewable electricity generating facility including contributions of pre-2002 renewable electricity; and

(e) other forms of renewable electricity as may be allowed under Section 8.

(4) To meet the renewable electricity 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 25% of that non-NSPI electricity supply is supplied by a renewable electricity generator.

#### Shortfalls

8(1) Where NSPI is of the opinion that it may be unable to meet a renewable energy standard due to a delay or the inability of independent power producers to provide contracted electricity supplies, NSPI shall supply sufficient renewable electricity from other sources to make up the shortfall for a period not to exceed 12 months.

(2) Where, on application by NSPI, the Minister is of the opinion that NSPI may be unable to meet the renewable electricity standard due to the inability of independent power producers to provide contracted electricity supplies for a period longer than 12 months, the Minister may permit NSPI to supply sufficient renewable electricity from other sources to make up the shortfall on such terms and conditions as the Minister may determine.

#### Forest biomass cap

9(1) No more than 500,000 dry tonnes of primary forest biomass over the amount of primary forest biomass consumed in the Province in 2009 may be utilized to attain the renewable electricity standard set out in Section 7.

(2) For the purposes of a renewable electricity generation facility that uses primary forest biomass, only the amount of electricity the Minister determines is generated from the use of primary forest biomass as permitted by the subsection (1) qualifies for the renewable electricity standard set out in Section 7.

#### Renewable electricity generation facility approval

10(1) Only electricity supplied by a renewable electricity generation facility that has been approved under Section 15 qualifies to meet the renewable electricity standards set out in Sections 5, 6 and 7.

(2) Any person may apply to the Minister for approval of a facility as a renewable electricity generation facility.

#### Application

11 An application must be completed and signed by a person who is an authorized signatory of the applicant.

## Submission of application

12 An application must be submitted to the Minister and be in the form prescribed by the Minister.

## Incomplete application

13 If an application is not complete or additional information is required, the Minister shall notify the applicant in writing within 90 days of receipt of the application and request the information necessary to make the application complete.

## Rejection of incomplete application

14 If the information requested in Section 13 is not provided by the applicant within 90 days of a request, the Minister may reject the application and, if so, shall immediately notify the applicant in writing that the application has been rejected.

## Approval or rejection of application

15(1) The Minister must approve an application if

- (a) the renewable energy generation facility is to be located in the Province, including the marine waters in the Province;
- (b) it will produce renewable low impact electricity;
- (c) if it was constructed before December 31, 2001, it has
  - (i) increased its output since December 31, 2001 by expanding or through technology upgrades, or
  - (ii) have undergone a major rebuild in lieu of retirement since December 31, 2001.

(2) For a facility described in subsection (1)(c) only the incremental capacity resulting from the increase in output since December 31, 2001 qualifies under Sections 5 and 6.

(3) Where the Minister approves an application under subsection (1) the Minister will issue the applicant a renewable electricity standard approval which may be subject to such terms and conditions as the Minister determines are appropriate.

(4) An approval issued by the Minister under subsection (3) must not be transferred without the prior written approval of the Minister.

(5) A renewable energy generation facility approved under this Section must continue to meet the applicable requirements of these regulations and its sales level of output must not exceed production supply.

#### Transitional

16 A certification issued under Section 7 of the former regulations is hereby continued as a renewable electricity standard approval under Section 15 of these regulations.

#### Minister's determination

17 For each calendar year starting with the 2011 calendar year, the Minister shall determine for, each load serving entity's total electricity sales, the total renewable electricity produced and the portion of renewable electricity produced from independent power producers after December 31, 2001.

#### Penalties and enforcement

18(1) A person is liable to a daily penalty of no more than \$500 000 to an maximum aggregate of \$10,000,000 per occurrence if they do any of the following:

- (a) fail to comply with Part II of these regulations;
- (b) fail, neglect, omit or otherwise refuse to do any act or thing required under Part II of these regulations;
- (c) fail, neglect, omit or otherwise refuse to comply with a direction or order of the Minister to comply with Part II of these regulations.

(2) Unless otherwise provided in the Act, a person is not subject to a penalty under subsection (1) if the person establishes that they

- (a) exercised due diligence; or
- (b) reasonably and honestly believed in the existence of facts that, if true, would render the conduct of the person excusable.

(3) No public utility may recover any penalty imposed under this Section through its rate base.

### **Part III                      Feed-in Tariffs**

#### One Window Committee

19(1) The Ministers of Agriculture; Energy; Environment; Fisheries and Aquaculture; Natural Resources; Service Nova Scotia and Municipal Relations; Tourism, Culture and Heritage; and Transportation and Infrastructure Renewal, shall designate one or more representative to serve on a one-window committee.

(2) The one-window committee will, under the direction of the Minister of Energy, coordinate the provision of timely advice to applicants under this Part respecting permits or approvals necessary from their respective departments for an applicant's project and the expected level of service for the processing of such permits and approvals.

#### Community feed in tariff

20(1) In accordance with Section 4A of the Act the Board shall set a tariff under this Section for each of the following classes of generation facility:

- (a) wind;
- (b) biomass;
- (c) small scale in stream tidal; and
- (d) run-of-the-river hydroelectricity.

(2) In establishing a tariff under subsection (1) the Board shall determine, for each class of generator, the estimated value of the physical assets of a facility, and may, in its discretion, make allowances for the following matters:

- (a) depreciation;
- (b) cost of labour and supervision
- (c) necessary working capital
- (d) organization expenses
- (e) construction overheads in respect of engineering, superintendence, legal services, taxes and interest during construction, and like matters not included in the valuation of physical assets;
- (f) costs in whole or in part of land acquired in reasonable anticipation of future requirements;
- (g) costs to interconnect the generation facility with the electrical grid;
- (h) return on investment; and
- (i) such other matters as the Board deems appropriate.

### Developmental tidal array tariff

21(1) In accordance with Section 4A of the Act the Board shall set a tariff under this Section for developmental tidal arrays.

(2) In determining a tariff for developmental tidal arrays the Board shall take into account those matters described in subsection 20(2) except that it shall not make any allowance for the following matters:

- (a) costs covered or reimbursed through any government grant;
- (b) costs related to research and development of the technology deployed; and
- (c) costs to interconnect the generation facility with the electrical grid.

### Electricity purchases

22 Electricity purchased by a public utility under section 4A of the Act from a renewable energy generator approved under Section 28 qualifies for the renewable electricity standard set out in Sections 5,6, and 7.

### Community feed-in tariff qualification

23 In order to qualify for a tariff under Section 20 the generation facility

- (a) must be located in the Province;
- (b) must have majority ownership by:
  - (i) a municipality where the generation facility is located within the boundaries of the municipality;
  - (ii) a Mi'kmaq band council where the generation facility is located on lands owned by the Mi'kmaq band council;
  - (iii) a cooperative all of the members of which reside in Nova Scotia and 25% of which reside in the county where the generation facility is located;
  - (iv) a not-for-profit body corporate where at least 50% of its members reside in Nova Scotia and 25% of which reside in the county where the generation facility is located; and

- (v) a community economic development fund all of the members of which reside in Nova Scotia and 25% of which reside in the county where the generation facility is located;
- (c) must be a generation facility described in Section 20;
- (d) must interconnect with the electrical grid through a distribution system; and
- (e) must have been approved under Section 28.

#### Developmental tidal array tariff qualifications

- 24 In order to qualify for a tariff under section 21 the generation facility
- (a) must be located in the Province;
  - (b) must be a developmental tidal array;
  - (c) must interconnect with the electrical grid through a transmission system; and
  - (d) must have been approved under Section 28.

#### Application

- 23 An application must be completed and signed by a person who is an authorized signatory of the applicant.

#### Submission of application

- 24 An application must be submitted to the Minister in the form or manner required by the Minister which may include filing electronically through the internet.

#### Contents of application

- 25 An application must be in the form prescribed by the Minister and must:
- (a) contain the name, address, telephone, e-mail address and fax number of the applicant and where applicable, proof of current registration with the Nova Scotia Registry of Joint Stock Companies, and the name, title and address of the person to be contacted in respect of the application;
  - (b) evidence that the applicant qualifies as generator under section 4A of the Act;
  - (c) include a project concept identifying the type of generation facility proposed and the community in which the project will be located;

- (d) demonstrate that the applicant has knowledge of the municipal by-laws that apply to the project and a commitment to comply with them;
- (e) identify any local Miikmaq communities that may be impacted by the project and demonstrate an acceptable means to engage those Miikmaq communities to identify any of their concerns or interests including interests in participation as owners, investors or suppliers;
- (f) provide evidence of community support for the project;
- (g) demonstrate the applicant's knowledge and understanding of the type and scope of environmental approvals, including a statement of the environmental impact of the project;
- (h) include a business case that
  - (i) contains a resource assessment;
  - (ii) demonstrates the financial viability of the project at the appropriate tariff rate; and
  - (iii) contains the projected capital costs of the project including interconnection costs the cost and expected sources of capital;
- (j) demonstrate the applicant's knowledge of the requirements for an archaeological or heritage site review including a plan for completing the review with cost and timing implications for the project;
- (k) demonstrate the applicant's knowledge of the land ownership and access issues for the propose project site;
- (l) provide evidence of discussions with NSPI on the technology requirements for the project; the availability of capacity on the distribution or transmission system for the project, as the case may be; and demonstrate an understanding of the detailed technical studies required for the project including the costs of the studies; and
- (m) any other information required by the Minister.

#### Incomplete application

26 If an application is not complete or additional information is required, the Minister shall notify the applicant in writing within 90 days of receipt of the application and request the information necessary to make the application complete.



### Rejection of incomplete application

27 If the information requested in Section 26 is not provided by the applicant within 90 days of a request, the Minister may reject the application and, if so, shall immediately notify the applicant in writing that the application has been rejected.

### Approval or rejection of application

28(1) The Minister may approve or reject an application which satisfies the requirements under Part III of these regulations, subject to such other terms and conditions as the Minister determines are appropriate and shall notify the applicant in writing accordingly.

(2) Where the Minister approves an application under subsection (1) the Minister will issue the applicant a feed-in tariff renewable electricity approval.

(3) An approval issued by the Minister under subsection (2) must not be transferred without the prior written approval of the Minister.

(4) Where an applicant has been approved under subsection (2) the applicant must continue to meet the applicable requirements of these regulations.

### Interconnection queue

29 If an application is approved by the Minister under Section 28, NSPI must, at the request of the applicant, place the applicant's generation facility in the next available place in the queue for interconnection with the electrical grid.

### Standard power purchase agreement

30(1) The Minister, in consultation with NSPI shall prepare a standard form of power purchase agreement to be used for the purposes of this Part and have the form of power purchase agreement approved by the Board.

(2) The intended parties to a power purchase agreement may agree to changes to the standard power purchase agreement provide for in subsection (2) provided that the form of power purchase agreement is provided to the Minister.

### Deemed agreement

31 When an application is approved, the applicant and NSPI shall be deemed to have entered into a power purchase agreement in the form provided in Section 30 effective from the date NSPI accepts the applicant in the interconnection queue.

## Use of information

32 Where an applicant submits an application under this Part the applicant agrees that the information may be shared with other departments or agencies of the government or a load serving entity in order to complete the application process.

## Reporting

33 Within 30 days of the interconnection of a generation facility with the electrical grid the renewable energy generator that owns or operates the facility shall provide a report to the Minister that details:

- (a) the total capital costs for the project; and
- (b) for each project expenditure for goods or services that is \$50,000 or greater, the name and address of the supplier or contractor providing the goods or services.

## **Part IV Renewable Electricity Administrator**

### Request for proposal mandatory requirement

34 If a request for proposals under section 4B of the Act includes a request for a primary forest biomass renewable electricity generation facility, the request for proposals must require that proponents provide a forest management plan that will explain how the proponent intends to ensure that its fuel supply will meet sustainable harvesting requirements.

### Standard contract

35(1) The renewable electricity administrator must, in consultation with NSPI, prepare a standard form power purchase agreement to be used for the purposes of section 4B of the Act and have the form of power purchase agreement approved by the Board prior to any procurement.

(2) The intended parties to a power purchase agreement may agree to changes to the standard power purchase agreement provide for in subsection (2) provided that the form of power purchase agreement is provided to the Minister in the form agreed by the parties.

## **Part V General**

### Minister's powers

- 36 The Minister has all the power and authority necessary to implement, administer and enforce these regulations, including the power to issue directions or orders, and
- (a) shall establish a process for approving and auditing for compliance with these regulations renewable electricity generation facilities and renewable electricity generators;
  - (b) shall establish a process for approving and re-approving renewable electricity generation facilities and renewable electricity generators;
  - (c) shall establish accounts and records for a renewable electricity generator or its designated representative;
  - (d) shall establish registries of renewable electricity generation facilities and information that the Administrator determines to be necessary;
  - (e) may audit approved renewable electricity generation facilities as necessary to verify compliance with the Act and regulations;
  - (f) may suspend or revoke an approval issued under the regulations;
  - (g) may do anything necessary to ensure that the requirements of these regulations are met; and
  - (h) may prepare interpretations of these regulations or policies, standards and guidelines under these regulations.
- (2) The Minister may authorize a representative of the Department to exercise the Minister's powers and authority, and to undertake the Minister's responsibilities under these regulations.

#### Reporting requirements

- 37(1) Each load serving entity must report to the Minister annually, or at other intervals determined by the Minister, to outline its progress in meeting the requirements of these Part II of regulations.
- (2) The Minister may specify the form and content of the progress report.
  - (3) The Minister may issue directions or orders to ensure that the requirements of this Section are met.

#### Books and records of renewable electricity generators

38 Every renewable electricity generator shall keep or cause to be kept appropriate books, records, accounts, documents and other information related to the ownership and operation of its renewable electricity generation facility and its membership or ownership at an office in the Province.

#### Audit or examination

39 The Minister may at any time audit or examine the books and records of a renewable electricity generator to ensure the continued compliance by the renewable energy generator with the Act and regulations.

#### Duty of renewable electricity generator

40(1) A renewable electricity generator shall, for the purpose of an audit or examination made in accordance with Section 39,

- (a) make its books, records, accounts, documents and other information available at all reasonable times to any person authorized by the Minister for the purpose and shall provide the person with copies of documents requested by the person that are reasonable for the purposes of the audit or examination;
- (b) make available copies of any operating agreement or other agreements between the independent power producer and any other person in relation to the operation or ownership of its renewable electricity generation facility, at all reasonable times to any person authorized by the Minister for the purpose; and
- (c) give all reasonable assistance to a person authorized by the Minister to carry out the audit or examination, provide access to all relevant sites and answer orally or in writing all questions relating to the audit or examination in each case at such times, upon such notice and under such supervision by or on behalf of the independent power producer as is reasonable in the circumstances.

#### Order to comply

41(1) Where the Minister believes that a person has contravened, or will contravene any part of the Act or regulations, the Minister may issue an order requiring the person to cease a specified activity or to take such actions as the Minister directs.

(2) An order pursuant to subsection (1) remains in effect until it is revoked, in writing, by the Minister.

(3) A copy of an order made pursuant to subsection (1) shall be served on the person to whom it is directed.

### Compliance with order

42 Where an order is served on a person to whom it is directed, that person shall comply with the order forthwith or where a period for compliance is specified in the order, within the time period specified.

### Failure to comply

43 Where the person to whom an order is directed does not comply with the order or a part of the order, the Minister may take whatever action the Minister considers necessary to carry out the terms of the order or may cancel or suspend a power purchase agreement entered into pursuant to the provisions of Part III of these regulations, to which the person is party.

### Power purchase agreement

44 Any power purchase agreement entered into or deemed to have been entered into pursuant to the provisions of Part III of these regulations is subject to suspension or cancellation by the Minister as provided in these regulations.

### Appeals to the Board

45 (1) A person directly affected by an order or decision of the Minister made under Sections 41, 42 and 43 may, by written notice to the Board, appeal to the Board within 60 days after the later of the date of the order or decision or the issuing of the reasons for the order or decision.

(2) Where an appeal is taken under this Section, the Board may, by order, confirm the decision under appeal or make such other decision as the Board considers proper.

(3) The Minister is entitled to be heard by counsel or otherwise upon the argument of an appeal under this Section.

### Board powers

46 The powers of the Board respecting a hearing or an appeal under the *Utility and Review Board Act* and the *Public Utilities Act* and regulations made under those Acts apply to an appeal under these regulations.

### No assignment of power purchase agreement

47 No power purchase agreement entered into under Part III of these regulations may be assigned without the prior written consent of the Minister.

### Report by independent power producer

48 Where any event occurs, whether by operation of law or otherwise, that causes an independent power producer to fail to comply with the requirements for an independent power producer under these regulations, the independent power producer shall forthwith, notify the Minister in writing of the event and provide such information as the Minister may require.

Attachment 2

**HRM SUBMISSION**  
**RENEWABLE ELECTRICITY PLAN**  
**DRAFT REGULATIONS**

July 23, 2010



HRM is pleased to have the opportunity of providing its comments on the draft *Renewable Electricity Regulations* (“draft regulations”). The targets and objectives embodied in the recent amendments to the *Electricity Act* and the draft regulations are unquestionably ambitious. HRM has estimated that minimally \$250 – 300 Million in investment will be required by municipalities and non-profit sector in Nova Scotia to generate the full potential of 100 MW. As HRM is 40% of the Province’s population, HRM’s portion of that total would be approximately \$100 million plus investment. By comparison, HRM has spent approximately \$8 million on energy efficiency projects over the last five years.

Not only is the overall scale of investment significant, the speed with which the Province expects renewable energy projects to be up and running is very ambitious considering the time frame for municipal budgeting, resourcing and project development and construction approvals.

At the same time, today’s energy reality demands no less than those self-same ambitious targets. To meet these targets, it is HRM’s view that some small adjustments to the community Feed-In Tariff (“comFIT”) would be very supportive of the Province’s objectives.

## ***I Project Risk***

Risk is inherent in any project. To enable a positive decision to undertake a project, the level of risk has to be within the risk tolerance of the project proponent. The current draft regulations are structured on market principles of cost and revenue. However, the communities targeted by the comFIT rate are not businesses as such and the draft regulations to be successful, must recognize this fact. For instance, municipalities like HRM are traditionally risk averse and budget driven, and not revenue driven. The draft regulations must create a project risk level that is within reasonable levels from a municipal perspective before municipalities will consider applying scarce capital resources to energy related projects.

To encourage municipalities to take advantage of the comFIT rate, project risk must be abated to the extent possible. One such risk reduction opportunity would be entrenchment of the available MW’s for the comFIT rate. If the Province wishes distributed energy to be a significant feature of renewable energy projects in the Province, then the available comFIT MW’s should be firmly entrenched: this will reduce risk. The usual risks associated with any project such as financing, construction and performance risk are sufficiently high as to prove daunting in themselves without any added uncertainty. The draft regulations do not entrench 100 MW for the comFIT category.

To reduce risk, in recognition of the reality that most municipalities, and indeed comFIT category participants are starting at ground zero in terms of capacity building to even begin contemplation of a FIT program, the 100 MW comFIT category should be entrenched permanently in regulation as a permanent percentage of FIT programming. There is sufficient scope in the draft regulations



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under s. 8 for NSPI to respond to generation shortfalls should the comFIT category not achieve substantial generation.

Independent power producers and Nova Scotia Power have been attempting for ten (10) years to bring renewable energy onto the system. It is reasonable that the comFIT category starting with limited industry capacity have greater regulatory certainty to develop the requisite capacity to generate under the comFIT category.

To the extent that the regulations can address alleviating risk through entrenching 100 MW for the comFIT category, and guaranteeing priority to that amount of FIT tariff, then the draft regulations must also guarantee access to the grid via the interconnection queue: HRM would ask that the province carefully consider these options.

## ***II The Need to Build Capacity***

Setting 300 MW as a target for renewable low-impact electricity generation is an aggressive target which drives HRM to comment on its concerns in respect of capacity. Building capacity requires a predictable policy environment. HRM has identified the following capacity concerns for FIT:

### **1. Local Industry Capacity:**

One of the existing risks with renewable energy projects is the limited capacity to develop and deliver renewable low-impact electricity generation projects. While HRM believes it has significant internal project capacity HRM will still be extremely challenged to deliver timely renewable energy projects given that its core competencies do not include development of wind and power projects, generally. Finding staff, engineers etc. will take time. HRM believes that communities targeted by the comFIT rate, and specifically municipalities, do not have internal capacity to develop and deliver renewable low impact electricity generation projects. HRM would suggest that any public-private partnerships on the scale contemplated would be problematic, even with HRM's solid experience with public-private partnerships, as HRM does not believe that there is within Nova Scotia the capacity to bridge the gap in such a short period of time.

With the exception of municipalities that have existing municipal electrical utilities, none of whom have any generation expertise, no municipality in the province has any expertise in the development of power generation. Capacity, both community and industrial capacity, will only be built project by project.

Priority should be given to drive early comFIT success which can develop capacity and start momentum building towards a larger volume of successful comFIT projects. This is less likely to be the case if there is no priority given for comFIT project grid connection.

## 2. Capital Capacity

The Province has targeted 300 MW for the FIT, which represents a proposed capital investment of \$1.5 Billion. The proposed 100 MW comFIT category will require \$250 to \$300 million in capital investment. HRM is concerned that capital investment capacity will be difficult to source questioning whether FIT will succeed generating electricity and providing economic development in Nova Scotia. HRM has limited financial resources to invest in core capital projects. Guaranteed access and priority will be required to attract capital investment.

## 3. Cost and Revenue Variability

ComFIT projects will not have the economies of scale that can generate the returns compared to larger scale projects: success will be closer to margins and therefore will require greater project planning and support. Therefore the comFIT rate should be a sliding scale recognizing that smaller generation projects will have similar costs to larger projects while larger projects will have greater economies of scale. There must be the assurance that comFIT projects receive support in addition to the one Window committee.

Project development costs per MW under the comFIT category will be higher as compared to larger scale independent power producers or NSPI projects. The draft regulations should provide the Board with clear direction to consider the principles of distributed energy which is not only about what is the cheapest MW but also what potential does that MW have for driving economic development in various regions of Nova Scotia. The Board in setting the comFIT rate should consider this important factor.

The comFIT rate must also recognize that there is great cost diversity and revenue potential across the Province. The wind does not blow the same everywhere. If low cost is the only driver, then economic benefits deriving from the comFIT rate will happen in limited regions.

Therefore, HRM recommends that s.20(2) of the draft regulations should include the provision that the Board consider economies of scale, principles of distributed energy, and economic development when setting the comFIT rates.

## 4. Technical Capacity

NSPI requires capacity to respond to proposed projects. According to the draft regulations s.29, there is one interconnection queue. Today there are 27 projects in this queue, the oldest of which entered the queue in 2003. Such lengthy interconnection processes suggest that technical capacity is stretched. HRM's conclusion is that access that is not timely is not guaranteed.

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The draft regulations must ensure adequate technical resources. The Province must empower the Board to create reasonable project timelines. Who would make any investment in a project if there is no reasonable idea when that project can begin generating? NSPI must be encouraged to have the technical resources on hand to avoid project development delays. With the inclusion of s.8 in the draft regulations, NSPI does not need comFIT or even IPP production. If distributed energy is important to the Province, then the matter of technical capacity and the NSPI interconnection bottle neck must be addressed. HRM recommends that the draft regulations should allow for the Board to create reasonable project timelines and interconnection guidelines, encourage adequate technical capacity at NSPI, and in addition that the comFIT category be addressed by a separate interconnection queue.

### 5. DOE and NSPI Staffing

Parallel to the issue of technical capacity is staffing. If either the Department of Energy or NSPI do not commit sufficient people resources, then again, delay at the interconnection stages will act as a project brake as projects wait for attention.

If capacity is not addressed, then projects will not be developed. The first RFP's for wind generation were issued ten years ago, and today, there is limited success by independent power producers. Given that HRM estimates that municipal project and funding cycles will require two years to incubate a project to the point where it is ready for presentation as a proposal and add to that the average time span for a project of this type is approximately 4 years to completion, (and apparently longer given the interconnection queue) then this means that it is unlikely that a municipally based project can be completed in less than 5 years following finalization of the regulations and tariffs, i.e., before 2016.

### ***III Need to Preserve the Community Option***

The best policy for empowering communities to participate in the delivery and sale of green power has been determined by the province to be the set aside of 100mw for small-scale renewable-energy community projects. HRM supports the decision to set aside 100mw but this should be more firmly entrenched in regulation.

For community-based projects but because of capacity issues and the proposed restrictions, that there will be very little take-up in the 5 years prior to review. Attracting capital investment by municipalities and groups with little expertise, will require these organizations and municipalities to point to greater guarantees of access and priorities, perhaps greater than the private sphere. If this is a priority for the Province, and why else would 100 MW be proposed to be set aside for this target audience, then why not provide the certainty required by entrenching in regulation?

Municipalities by their very nature are risk averse. Up front investment in a project cannot be supported unless there is a high probability that the project will be completed. Given the lengthy

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incubation period, and the associated investment of time and resources required to incubate renewable projects, there needs to be more certainty around the investment. A permanent assignment of 100mw to community-based projects would create a more stable environment for community-based investment decisions.

### *IV Definitions*

HRM has identified several definition which it feels would benefit from wording changes. HRM recommends the following:

#### Definition of “Distribution Zone”

Debate has already commenced in respect of what constitutes a distribution zone. Inclusion of a map to better define the existing distribution zones within the province would remove this issue and create more certainty and better understanding of what the boundaries of an existing distribution zone are.

#### Definition of “Biomass”

HRM requests clarification of the definition of biomass and whether it includes residual waste generated from a source separated waste collection program where all other viable waste products have been diverted and the remaining residual waste is destined for landfill in accordance with provincial regulations.

#### Definition of “Run of River”

HRM believes that there are significant renewable low impact electricity generation opportunities from expanding the definition of run of river to include pipes. In HRM, there are significant head differentials, in some cases 500 feet, in the water and sewage system which require pressure relief valves. The same function of relieving pressure from liquid moving between those heights can be achieved with the insertion of small turbines which can power generation. Also, the flow of water and sewage increases at the same time as there is peak demand for electricity, namely in the morning and evening periods. Electricity generated by these type of devices could be very beneficial to NSPI in their management of peak demand periods. HRM recommends that “run of river” include run of pipe.

#### Definition of “Renewable low-impact electricity”

This definition does not include solar however, HRM believes that even if it is not economically feasible, certain parties may wish to invest in these options for altruistic reasons, and suggests that solar be available for equal FIT as that is made available for wind generated electricity. As well, that landfill gas be expanded to include waste to energy utilization. There is no reason that energy from landfills be restricted to the gases that those landfills generate. Making use of the landfill content is the primary objective reducing landfill mass and reducing the need for extracting new

energy sources, instead making energy from waste product in more expansive manners than simply waiting for decomposition of matter. HRM recommends that “renewable low-impact electricity” include “solar” and “waste to energy”.

## ***V Shortfalls***

HRM believes that shortfalls in meeting the renewable energy standards which may require NSPI to outsource renewable energy generation for periods longer than twelve months should be made under public scrutiny as these decisions would in effect be amendments to the regulations, and, pursuant to s. 4A(6), NSPI would be entitled to automatically recover whatever it pays under these contracts from the rate base. Once incurred, these power supply contracts covering market place shortfalls where independent power producers are not generating sufficient capacity, are unlikely to be denied by the Board. These shortfall supply contracts should receive public scrutiny. Section 8(2) of the regulations should be amended accordingly to require Board approval where the Minister may present evidence at that time, and would allow the Consumer Advocate an opportunity to present evidence.

If NSPI has ready access to purchase clean energy on the market, there is little incentive for NSPI to develop internal capacity to handle interconnection queues and also, coupled with the lack of guaranteed access for the comFIT category (comFIT only establishes a guaranteed rate not access) then project certainty is not established in sufficient degree for municipalities to seek capital investment. HRM is concerned that Nova Scotia generation projects, including the comFIT category will be competing with extra-Provincial generators. HRM recommends that any action taken by NSPI under s.8 be fully transparent and in a public forum such as before the Board.