

February 9, 2011

Nancy McNeil
Regulatory Affairs Officer
Nova Scotia Utility and Review Board
1601 Lower Water Street, 3rd Floor
Halifax, NS B3J 3P6

Dear Ms. McNeil:

Re: Nova Scotia Power Inc. Regulation 3.6 – Net Metering – P-188 / Matter No. M03666

Please accept the following as the written submission of Halifax Regional Water Commission ("HRWC") to the Nova Scotia Utility and Review Board ("UARB" or the "Board") with respect to the proposed amendments by Nova Scotia Power Inc. ("NSPI") to NSPI Regulation 3.6, the Net Metering Regulation (the "Draft Regulation"). The Draft Regulation was proposed by NSPI pursuant to recent amendments (the "Amendments")¹ to the *Electricity Act*. HRWC respectfully submits that changes are warranted to NSPI's Draft Regulation for the following reasons:

1. The definition of "distribution zone" is too narrow and will likely result in very limited use of aggregated net metering, which would be inconsistent with the policy objectives of the Amendments. The Amendments permit a broader definition of "distribution zone" than that adopted by NSPI. A broader definition of this term would increase the use of aggregated net metering.
2. The 20MW cap for net metering is overly limiting and the Amendments do not suggest or require that NSPI impose such a cap. Any cap on net metering should only be imposed if there is evidence which supports such a cap.
3. There should only be a transfer or assignment of emission credits and allowances to the extent it enables NSPI to comply with the requirements of any enactment regulating emissions. There does not appear to be any evidence that the transfer or assignment of any emission credits or allowances by a net metering customer to NSPI will enable NSPI to comply with the requirements under the existing *Greenhouse Gas Regulations*. In addition, there does not appear to be any evidence that the transfer or assignment of any emission credits or allowances by a net metering customer to NSPI will enable NSPI to comply with the requirements under the existing *Renewable Electricity Regulations*.

¹ See Amendments to the Electricity Act at <http://nslegislature.ca/legc/PDFs/annual%20statutes/2010/c014.pdf>.

1. Definition of Distribution Zone

The Province of Nova Scotia's Renewable Electricity Plan explains that the intention of enhanced net metering regulations is to expand and enhance the current net metering program.² In its 2009 Energy Strategy, the Province states: "The Utility and Review Board (UARB) already allows limited use of net metering. The 2009 Energy Strategy will adjust the existing rules to encourage greater use of this technique."³ Therefore, as required by the Amendments, the Draft Regulation permits net metering aggregation whereby a single customer may net meter more than one electric service account against its generator. NSPI indicates that the enhanced net metering program would encourage small scale renewable energy.⁴ Unfortunately, the Draft Regulation will not be as effective as it could be in achieving this objective because the definition of "distribution zone" used therein with respect to aggregated net metering is too restrictive.

The Amendments require that the Net Metering Regulation permit customers to have multiple meters under one account within a defined distribution zone, but there is no definition or further articulation of a defined distribution zone, and as such NSPI indicates that its proposed definition is consistent with the statutory language.⁵ However, the Amendments do not prohibit the Net Metering Regulation from allowing customers to have multiple meters under multiple accounts within multiple defined distribution zones; so long as it permits customers to have multiple meters under one account within a defined distribution zone, this would also be consistent with the statutory language.

Despite the permissiveness of the Amendments, NSPI has chosen to take a very restrictive approach to defining "distribution zone", and as can be seen in Attachment 1 to NSPI's Response dated to HRWC's IR-1,⁶ the listed distribution zones are so narrow as to significantly limit the number of customers who could otherwise benefit from aggregated net metering. For example, if an individual had a cottage with solar photovoltaics in one area (e.g. Pugwash) and a home in another area (e.g. Windsor), the individual could not benefit from aggregated net metering. Or, if HRWC had a wind turbine in one area (e.g. Lake Major) and demand and load in another area (e.g. downtown Halifax), it could not benefit from aggregated net metering.

NSPI was asked to provide copies of any documentation or studies and explain why NSPI believes or anticipates that many customers will be able to take advantage of aggregated net metering, given that many customers with multiple electrical loads spread over a large geographical area and which are separately metered are generally not likely to have more than one meter within a distribution zone. NSPI stated that it did not conduct any such studies.⁷ HRWC respectfully submits that the Draft Regulation should be considered in the context of whether it will be effective in meeting its objectives. In this case, HRWC respectfully submits that one of the objectives of the Amendments is to increase customer uptake of net metering by, among other things, allowing aggregated net metering. HRWC's view is that the Draft Regulation will not be effective as proposed.

² See page 2 at <http://www.gov.ns.ca/energy/resources/EM/renewable/renewable-electricity-plan.pdf>.

³ See page 19 of *Towards a Greener Future: Nova Scotia's 2009 Energy Strategy* at <http://www.esans.ca/pdf/EnergyStrategy2009.pdf>.

⁴ See NSPI press release "Enhanced net metering program would encourage small scale renewable energy", November 1, 2010 at <http://www.nspower.ca/en/home/aboutnspi/mediacentre/NewsRelease/2010/netmetering.aspx>.

⁵ See section 3A (2)(d) of the *Electricity Act*.

⁶ See NSPI's Responses dated January 26, 2011 to HRWC's IR-1.

⁷ See NSPI's Responses dated January 26, 2011 to HRWC's IR-8(a).

In its IR-8(c), HRWC asked NSPI why the proposed Net Metering Regulation does not permit customers to use aggregated net metering with respect to multiple meters under multiple accounts within multiple defined distribution zones. HRWC further asked if there were technical, system impact or other concerns (e.g. safety and reliability) relating to the Nova Scotia Power System Operator ("NSPSO") with respect to the foregoing, and to explain how those concerns could be addressed to permit broader access to net aggregated metering than the limitations invoked by restricting net metering to customers with multiple meters under one account within NSPI's definition of distribution zone. NSPI responded by simply stating that its Draft Regulation is compliant with the requirement in the Amendments.⁸ However, NSPI's only justification for its proposed requirement that all eligible facilities of a net metered customer be served by a single distribution supply transformer is based on the assertion that the NSPI Open Access Transmission Tariff ("OATT") necessitates this.⁹ For the reasons discussed below, HRWC respectfully submits that this is simply not the case.

NSPI was asked by HRWC in its IR-8(b) to explain any possible definitions of "distribution zone" which could permit broader access to net metering than the limitations invoked by restricting net metering to customers with multiple meters under one account within NSPI's definition of distribution zone, and to explain why NSPI has not put such definitions forward in the Draft Regulation. NSPI responded that it chose the broadest definition of "distribution zone" possible "while respecting the revenue and eligibility requirements of the Open Access Transmission Tariff ("OATT")."¹⁰

With respect, HRWC submits that the issues presently before the Board concerning net metering aggregation in Nova Scotia are entirely unrelated to the OATT or to the use of transmission services. In its submissions, however, NSPI appears to take the position that if a customer with remote generation and load facilities (i.e., facilities not served by the same distribution supply transformer) was permitted to participate in aggregated net metering, then the use of the transmission system would be required, which in turn has implications under the OATT.¹¹ This is not the case. The model of aggregated net metering presently under discussion requires only the financial netting of a customer's electricity consumption in one location against the customer's injection of electricity in another location (i.e., a netting of absolute energy quantities for the purposes of settling the customer's account). It does not require that a customer actually transmit electricity from the location where it is a net producer of energy to the location where it is a net consumer.

Instead, the customer's net generating facility effectively operates as distributed generation on the NSPI system, serving load on the local distribution system. Provided that appropriate system studies are conducted by the NSPSO that conclude that the portion of the distribution system where the customer intends to connect its net metering generation facility is technically able to accommodate the generator, then NSPI should be indifferent as to whether or not the customer's net consumption facility is served by the same distribution supply transformer as its net generation facility. Regardless of the remoteness of the customer's facilities, transmission services are not utilized and the OATT is not implicated. In this sense, it seems more like an accounting matter than a electricity transmission system matter. As a result, it is respectfully submitted that the limitations imposed by NSPI's definition of "distribution zone" are artificial,

⁸ See NSPI's Response dated January 26, 2011 to HRWC IR-8(c).

⁹ See NSPI's Response dated January 26, 2011 to HRWC IR-1 and IR-8(b) and Multese IR-2.

¹⁰ See NSPI's Response dated January 26, 2011 to Multese IR-2.

¹¹ See NSPI's responses to HRWC IR-1 (at lines 11 – 12, page 2 of 2), IR-8(b) and Multese IR-2.

limit the accessibility of the net metering program, and should instead be based upon physical limitations of the system (NSPSO technical systems requirements).

HRWC's view is that the UARB should direct NSPI to introduce a Net Metering Regulation that achieves the objectives of the Amendments by providing for more flexible aggregated net metering that does not artificially limit aggregated net metering by requiring that the net metered customer's aggregated facilities be served by the same distribution transformer.¹² It is HRWC's submission that this would result in greater customer uptake of the net metering program, thereby increasing the likelihood of the achievement of the objectives of the Amendments.

In conclusion on this point, HRWC submits that the Draft Regulation should not be designed merely to comply with the Amendments; instead, it should be designed to achieve the objectives of the Amendments in a practical and realistic manner. Otherwise, the Amendments will not have their intended effect and the purpose of the Amendments will not be realized. Prior to finalizing and introducing the Amendments, HRWC's view is that consideration be given to approaches or definitions which would maximize the geographic area which could benefit from aggregated net metering while respecting the NSPSO's technical systems requirements for safety and reliability, in an effort to better achieve the objectives of the Amendments.

HRWC respectfully submits that the Board direct NSPI to adopt an approach to aggregated net metering which would allow the broadest access possible to aggregated net metering (including if this would permit aggregated net metering across multiple "distribution zones" as defined by NSPI in the Draft Regulation) while respecting any and all technical systems requirements safety and reliability concerns of the NSPSO, thereby better achieving the objectives of the Amendments. Specifically, HRWC requests that the Board direct NSPI to permit aggregated net metering by customers with respect to multiple meters under multiple accounts within multiple defined distribution zones so long as appropriate system studies are conducted by the NSPSO that conclude that the portion of the distribution system where the customer intends to connect its net metering generation facility is technically able to accommodate the generator.

2. 20 MW Cap

The Draft Regulation includes a maximum capacity allocation of 20 MW to net metered customers. The Amendments do not suggest or require that NSPI include such a cap. HRWC respectfully submits that a cap of 20MW (about 1% of maximum NSPI system demand) appears overly restrictive, and there has been no evidence provided by NSPI to suggest that a higher cap would not be technically feasible from the perspective of the NSPSO. Furthermore, no information has been provided with respect to the implications of a higher cap from the perspective of fuel savings benefits, reduced greenhouse gas emissions compliance costs or the implications to NSPI's fixed overhead costs.¹³

Without this information or analysis, it is respectfully submitted that it appears an overly restrictive cap of 20MW was chosen. HRWC is of the view that it would be a better approach for NSPI to propose a cap that is developed based on detailed information and evidence rather than to simply impose the overly restrictive cap of 20 MW. HRWC's view is that the limits of 5MW for Class 1 (up to and including 100kW) generators and 15 MW for Class 2 (greater than 100 kW to 1MW) were also chosen without sufficient information and analysis.

¹² See NSPI's Evidence page 9, lines 8-14 and NSPI's Response dated January 26, 2011 to HRWC IR-1.

¹³ See NSPI's Response dated January 26, 2011 to HRWC IR-1

Therefore, HRWC respectfully submits that the Board direct NSPI to remove the 20MW cap on the net metering program until evidence can be provided by NSPI to the Board supporting the reasonableness of such a cap (i.e. it is not overly restrictive). Such evidence could include consideration of the technical requirements of the electricity system as determined by the NSPSO.

3. Assignment of Emission Credits and Allowances

The Amendments require that as a condition of participation in net metering, the customer transfer or assign all emission credits or allowances arising from the use of renewable energy sources to NSPI to enable it to comply with the requirements of any enactment regulating emissions, but for no other purpose. When a customer generates its own electricity under a net metering program, certain energy will be directly used by the net metering customer if the net metering customer has a demand or load at that point in time, and certain energy will be transmitted by the net metering customer onto the electricity grid and used by another customer if the net metering customer does not have a demand or load at that point in time. In these latter circumstances the net metering customer receives credits under the net metering program. HRWC submits that under the existing *Greenhouse Gas Regulations*¹⁴ applicable to NSPI, any emission credits or allowances related to a net metering customer's generation of renewable electricity (certainly when such renewable electricity is used directly by the customer but also it seems when the electricity is transmitted to the grid) would not enable NSPI to comply with the requirements under the existing *Greenhouse Gas Regulations*, and therefore should not be transferred or assigned to NSPI.

The existing *Greenhouse Gas Regulations* apply to facilities that generate electricity for sale and which emit greenhouse gases that are owned by a facility owner (i.e. NSPI), and a hard cap is placed on direct greenhouse gas emissions from such facilities. HRWC submits that to the extent that a customer's net metering reduces demand or load which would be met by NSPI's coal, oil or gas based electricity generating facilities, there will be an indirect contribution by the net metering customer to NSPI's compliance with the existing *Greenhouse Gas Regulations*. However, it is HRWC's view that the transfer or assignment of any emission credits or allowances by a net metering customer to NSPI does not count to offset the hard cap on direct emissions from NSPI's facilities under the existing *Greenhouse Gas Regulations*. Therefore there is no need to transfer or assign such emission credits or allowances to NSPI. In HRWC's response to HRWC's IR-5, NSPI responded that if emission credits are not linked to the energy generated from net metering, NSPI would be required to add the equivalent amount of GHG emissions back into the inventory for that time period, no emission reduction would result, and the energy would have significantly less value.¹⁵ HRWC respectfully submits that it is not clear why NSPI is of the view that the existing *Greenhouse Gas Regulations* operate in such a manner as they appear to impose a hard cap on direct emissions from NSPI's electricity generating facilities. This hard cap is unrelated to and will not be reduced by the receipt of emission credits or allowances from NSPI's net metering customers.

Furthermore, even if emission credits or allowances from a net metering customer's generation of renewable electricity did enable NSPI to comply with the requirements of any enactment regulating its emissions, then once NSPI is in compliance therewith no future emission credits or allowances from subsequent net metering customers should need to be transferred or assigned to NSPI. To do so would provide a windfall to NSPI not contemplated or permitted by the Amendments. In response to HRWC's IR-5(c) in which HRWC asked what would happen to

¹⁴ See <http://www.gov.ns.ca/just/regulations/regs/envgreenhouse.htm>.

¹⁵ See NSPI's Response dated January 26, 2011 to HRWC IR-5(b).

excess emission credits or allowances once NSPI is in compliance with any enactment regulating emissions, NSPI responded that there are currently no mechanisms in place in Nova Scotia to define or value emission credits, but should there be in future, the value of any such excess credits would serve to reduce fuel costs for NSPI's customers. This suggests that NSPI is considering the possibility of selling emission credits or allowances received from net metering customers once it is in compliance with any enactment regulating NSPI's emissions. It is respectfully submitted that this seems inconsistent with the requirement in the Amendments that any transfer of emission credits or allowances from a net metering customer's generation of renewable electricity should not be provided to NSPI except for the sole purpose of compliance with the requirements of any enactment regulating its emissions.

Further, Nova Scotia's *Renewable Electricity Regulations* mandate that a percentage of the electricity supply provided by NSPI and the municipal utilities to their customers is renewable electricity (the "Renewable Energy Standard"); it is not a regulation which directly regulates emissions. However, even if the *Renewable Electricity Regulations* are considered to regulate NSPI's emissions, there does not appear to be any evidence that the transfer or assignment of any emission credits or allowances by a net metering customer to NSPI will somehow enable NSPI to comply with the requirements under the existing *Renewable Electricity Regulations*. Under the *Renewable Electricity Regulations*, in order to be approved as renewable energy that qualifies for the Renewable Electricity Standards, it appears that it must be approved in accordance with such regulations. It does not appear that net metering customers will have their generators approved under these regulations, and therefore they do not seem to be applicable.

In conclusion, it is respectfully submitted that the Board direct NSPI to amend the Draft Regulation such that the transfer of emission credits or allowances to NSPI will only occur if and when NSPI provides evidence to the Board that it requires such emission credits or allowances to comply with the requirements of any enactment regulating its emissions. It is HRWC's view that this approach would ensure that net metering customers are not required to transfer emission credits or allowances to NSPI, except in the situations specifically authorized under the Amendments.

Summary

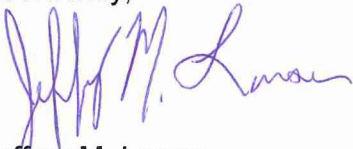
HRWC's submissions may be summarized as follows:

1. The Draft Regulation should be amended to adopt an approach to aggregated net metering which would allow the broadest access possible to aggregated net metering (including if this would permit aggregated net metering across multiple "distribution zones" as defined by NSPI in the Draft Regulation) while respecting any and all technical systems requirements safety and reliability concerns of the NSPSO, thereby better achieving the objectives of the Amendments. Specifically, HRWC requests that the Board direct NSPI to permit aggregated net metering by customers with respect to multiple meters under multiple accounts within multiple defined distribution zones so long as appropriate system studies are conducted by the NSPSO that conclude that the portion of the distribution system where the customer intends to connect its net metering generation facility is technically able to accommodate the generator.
2. The 20MW cap on the net metering program should be removed until evidence can be provided by NSPI to the Board supporting the reasonableness of such a cap (i.e. it is not overly restrictive). Such evidence could include consideration of the technical requirements of the electricity system as determined by the NSPSO.

3. The transfer of emission credits or allowances to NSPI will only occur if and when NSPI provides evidence to the Board that it requires such emission credits or allowances to comply with the requirements of any enactment regulating its emissions. It is HRWC's view that this approach would ensure that net metering customers are not required to transfer emission credits or allowances to NSPI, except in the situations specifically authorized under the Amendments.

HRWC therefore respectfully requests that the UARB direct NSPI to revise the Draft Regulations accordingly.

Yours truly,



Jeffrey M. Larsen