Nova Scotia Utility and Review Board

IN THE MATTER OF *The Public Utilities Act*, R.S.N.S. 1989, c.380, as amended

-and-

IN THE MATTER OF A Proceeding Concerning Sales of Renewable Low Impact Electricity Generated within Nova Scotia by a Retail Seller to a Retail Customer pursuant to the Electricity Act (M06214)

NS Power Rebuttal Evidence

January 8, 2016

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1.0 INTRODUCTION

On September 1, 2015, Nova Scotia Power Inc. (NS Power, the Company) submitted its Renewable to Retail (RtR) Application[1] to the Nova Scotia Utility and Review Board (UARB, Board). The Application proposes a comprehensive market design to facilitate the purchase and sale of renewable low-impact electricity as provided for under Section 3C of the *Electricity Act* and was developed after many months of consultation with stakeholders.

On October 9 and November 9, 2015, NS Power responded to Information Requests (IR)[2] from the Board, the Board's consultants, Energy Consultants International (ECI) and Multeese Consulting (Multeese), and from the Consumer Advocate (CA), Small Business Advocate (SBA), Port Hawkesbury Paper (PHP) and SWEB Development Inc. (SWEB).

Evidence was subsequently filed by ECI and Multeese as well as by the CA, SBA, and SWEB on November 20, 2015.[3] IRs on this evidence were responded to by the CA, SBA and SWEB on December 11, 2015.[4]

The Company held a Settlement Conference with Intervenors on December 15, 2015 to discuss the issues raised in the evidence filed by the Intervenors as well as those raised in the evidence of Multeese and ECI.

On December 21, 2015, NS Power filed a Settlement Report[5] in order to advise the Board on the outcome of the Settlement Conference and related efforts. NS Power was not able to arrive at a Settlement Agreement with Intervenors. However, in the Settlement Report, NS Power was able to identify those issues which it anticipates will be

[1] M06214, Renewable to Retail, Exhibit N-16.
[2] M06214, Renewable to Retail, Exhibits N-17 to N-30.
[3] M06214, Renewable to Retail, Exhibits N-31 to N-35.
[4] M06214, Renewable to Retail, Exhibits N-36 to N39.
[5] M06214, Renewable to Retail, Exhibit N-40.

contentious for the hearing based on the evidence filed and feedback received from Intervenors.

The Company has considered the evidence filed by the Intervenors and the Board's consultants and is pleased, given the complexity of the matter, with the relatively narrow range of issues that has been raised in the evidence. The CA, SBA and SWEB have made a number of recommendations, the primary focus of which are on aspects of rate design and cost recovery. Multeese has made certain recommendations with respect to some of the charges included in the proposed RtR tariffs. ECI has also made a number of recommendations with respect to revisions to the Company's proposed RtR procedures (LRS Terms and Conditions) and the Board's draft Retail Regulations, particularly as they relate to the issue of "behind-the-meter" sales.

NS Power has made considerable effort in its consultation process to be collaborative, flexible and transparent with stakeholders. This was acknowledged by the SBA's consultant. At page 11 of his evidence, Mr. Athas stated:

> **Q. What is your overall conclusion about the stakeholder process?**
> A. I felt that the information presented was excellent in both the production of the material and the quality of the presenters. I believe that NSPI invited comment, discussion and diverse opinions during these sessions for their consideration in the ultimate NSPI proposal for all the aspects of design of the RtR market. **It is evident from the Application filed by NSPI that the stakeholder sessions influenced the ultimate content of their market design and tariffs**.[6]
>
> [emphasis added]

The Company's Application reflects the input gathered from stakeholders during the consultation process as well as the principles of the legislation, in particular Section 3G(2) which provides as follows:

[6] SBA Evidence, Exhibit N-30, page 11, lines 163-169.

(2) In reviewing and approving the tariffs, procedures and standards of conduct required to be developed or amended pursuant to this Section, the Board shall be guided by the following principles:

(a) customers of Nova Scotia Power Incorporated and persons who, at the coming into force of this Section, are independent power producers or hold feed-in tariff approvals within the meaning of the regulations are not to be negatively affected if some retail customers choose to purchase renewable low-impact electricity from a retail supplier;

(b) retail suppliers and their customers are to be responsible for all costs related to the provision of service by retail suppliers to their customers that would otherwise be the responsibility of Nova Scotia Power Incorporated and its customers.

The purpose of this Rebuttal Evidence is to address the specific recommendations and issues raised in the Intervenor evidence and the evidence of the Board's consultants.

2.0 AMENDMENTS TO EXISTING REGULATIONS, TARIFFS AND PROCEDURES

The following elements of the Application have not been challenged in evidence by Intervenors or by the Board's consultants:

(1) The proposed amendments to the NS Power Regulations;

(2) The proposed amendments to the Open Access Transmission Tariff (OATT);

(3) The proposed amendments to the Generator Interconnection Procedures (GIP) (including the amendments to the Standard Generator Interconnection and Operating Agreement); and

(4) The proposed amendments to the Market Rules.

Indeed, the Company's proposed amendments to the NS Power Regulations, OATT and GIP are all supported by Multeese, who has reviewed them and recommended they be approved:

> My conclusions and recommendations are as follows:
>
> (b) NS Power's proposed changes to its Regulations are designed to accommodate the [Distribution Tariff]. They are appropriate and should be approved.
>
> …
>
> (f) NS Power's proposed modifications to OATT are designed to accommodate the RtR market in an efficient manner and should be approved.
>
> (g) The proposed changes to the GIP are appropriate.[7]

[7] Multeese Evidence, Exhibit N-31, page 3, lines 3, 7-8 and 22-24.

With respect to the proposed amendments to the Market Rules, as noted in the Settlement Report, the NS Power System Operator (NSPSO) has completed its stakeholder consultations in accordance with processes set out in Market Procedure MP-05 and concluded that the proposed amendments should be incorporated into the Market Rules. [8]

As such, the Company recommends that the above amendments, including the amendments to the Market Rules, be approved by the Board as filed, subject to adjustment for any changes required as a result of adjustments to other elements of the Company's Application.

[8] Settlement Report, Exhibit N-40, page 11, lines 16-24.

3.0 SMALL BUSINESS ADVOCATE RECOMMENDATIONS

In the evidence filed on behalf of the SBA, Mr. Athas made four recommendations to the Board:

> We would like the Board to consider the following items when finalizing their decision in this matter.
>
> (1) Energy balancing services should be priced on a real time basis.
>
> (2) Requirements for certification for renewable energy must be maintained in order to be the foundation of the transactions.
>
> (3) NSPI should maintain and report, with separate accounting for Energy Balancing services and those fuel costs to other full service bundled customers, the cost and prices for these services.
>
> (4) A Quarterly Market participation report should be required of NSPI as I describe in my testimony.[9]

NS Power will respond to each of the SBA's recommendations.

3.1 Energy balancing services should be priced on a real time basis

Mr. Athas maintains that the pricing proposed in the Energy Balancing Service (EBS) tariff is "inappropriate and will unnecessarily hinder the development of the market."[10] He further states at page 17 of his evidence as follows:

> Pricing for EBS energy and demand costs and Standby service energy and demand costs should be presented by NSPI at its marginal cost either saved by Spill energy being sent to the system or incurred when Top-up energy is provided to make up for any renewable energy production hourly shortfall. The actual costs of these service to NSPI is only known on a real time basis. NSPI has proposed to use forecasting based upon the Plexus model to establish a fixed price for these services for a one year period.[11]

[9] SBA Evidence, Exhibit N-33, page, page 7, lines 91-100.
[10] SBA Evidence, Exhibit N-33, page 7, lines 109-110.
[11] SBA Evidence, Exhibit N-33, page 17, lines 284-89.

NS Power's recommendation is to maintain the EBS tariff as proposed in the Company's Application. This method provides a reasonable estimate of the cost of providing this service across the year covered by the proposed annually adjusted rate. It also benefits from administrative simplicity, low administration costs and predictability, which should be a consideration given the uncertain pace and composition of the market opening. It is important to note that incremental fuel costs are dependent on, among other factors, the amount of wind generation on the system and this cannot be known in advance. For that reason, application of the same predetermined rates to the spill and top-up services, whether differentiated by time of day and/or season, would not be appropriate. Differentiation by time of day and/or seasons of separate cost-based rates for each of top-up and spill would also likely suffer from anomalous results because of a lack of modelling precision to do such calculations on small load changes. Identifying the actual cost to provide top-up service or the value of acquiring Spill service across the year for relatively small load increments subject to frequent change, as is expected to be the case during the early stages of RTR market development, is likely to be complex, costly and contentious. The Company submits that this market opening will be better served by the use of prospective cost-based annual figures capable of annual adjustment.

However, NS Power supports the Company undertaking a review of the issue of time differentiated rates for the EBS tariff in consultation with stakeholders in the event RtR service uptake reaches an aggregate load of 25 MW or such other threshold as determined by the Board.

3.2 Requirements for certification

Mr. Athas states at page 14 of his evidence as follows:

> During the stakeholder sessions there was discussion as to whether the renewable attributes, certified as Renewable Energy Credits ("RECs"), could be sold by the renewable energy suppliers in a separate transaction from the RtR transaction. My position is that this should not be allowed. All markets that participate in REC markets do not certify renewable energy that has sold its attributes elsewhere via a REC market. NSPI has

> clarified that they and the Province are in agreement with this position as shown in NSPI's response to SBA IR-1 (d) which states that "in a letter to the UARB dated June 2, 2015, the Department of Energy clarified that renewable low-impact electricity sold in the Renewables to Retail market must not be separated from any associated Renewable Energy Credits". If this process is not maintained in the final approvals then the letter and spirit of the enabling legislation is violated.[12]

The SBA's concern with respect to Renewable Energy Credits has been addressed in Section 24 of the *Electricity Plan Implementation (2015) Act*, which provides as follows:

> (24) Section 3C of Chapter 25, as enacted by Chapter 14 of the Acts of 2010, is amended by adding immediately after subsection (1) the following subsection:
>
> (1A) In any sale pursuant to subsection (1), the retail supplier shall transfer or assign all emission credits or allowances arising from the use of renewable energy sources to the retail customer.

As such, no adjustment is required to the Company's Application.

3.3 Accounting for EBS

NS Power agrees with the SBA's recommendation with respect to the accounting for EBS services and confirms that payments made to and received from a Licenced Retail Supplier (LRS) with respect to EBS energy (top-up and spill) will be accounted for separately.

3.4 Quarterly Reports

The SBA has recommended NS Power be required to provide a quarterly RtR market participation report containing specific information. Mr. Athas states at pages 11-12:

[12] SBA Evidence, Exhibit N-33, page 14, lines 221-231.

> In order to help facilitate continued improvement I would like to see NSPI provide quarterly reports providing key information including, but not limited to:
>
> 1. Customer participation;
> 2. Total demand and energy participation;
> 3. Number and names of Licenced Retail Suppliers ("LSR") including the extent of their customers;
> 4. Energy purchased by NSPI under the Spill tariff and its price relative to quarterly real time/actual marginal costs;
> 5. The energy sold by NSPI under the EBS and the real time/ actual marginal cost to produce that energy, and load they are serving; and
> 6. Publication of any complaints against NSPI or any renewable energy LRS.[13]

The Company notes that the NSPSO submits an annual Wholesale Market Report to the Board covering areas of RtR market activity. NS Power proposes to include an RtR market report within the Wholesale Market Report, with a semi-annual update to the Board on the specific RtR market activity. NS Power proposes the report and semi-annual update include (for the reporting period):

(1) Customer participation (i.e., number of customers by bundled service class).

(2) Total demand and energy participation.

(3) Energy received by NS Power as spill under the EBS Tariff. The Company will report on the estimated cost savings to NS Power of accepting this energy.

(4) The energy sold by NS Power as top-up under the EBS Tariff. The Company will report on the estimated cost to provide this energy.

[13] SBA Evidence, Exhibit N-33 pages 11-12, lines 175 to 187.

The remaining items requested by the SBA, namely numbers and names of Licenced Retail Suppliers and complaints will be regulated by the Board under the Retailers Regulations and as such NS Power does not propose to include them in the report.

4.0 CONSUMER ADVOCATE RECOMMENDATIONS

4.1 Ratios of Revenues to Allocated Costs

In the CA's evidence, Mr. Chernick makes the following recommendation to the Board:

> Ensure that the distribution and transmission rates charged to customers within any tariff are the same, regardless of whether a customer is a full service NS Power customer or an RtR customer, and reflect the R/C ratios in generation charges, to make the RtR transition revenue-neutral.[14]

NS Power submits that the approach proposed by the Company in the Application with respect to Ratios of Revenues to Allocated Costs (R/C ratios) is the approach that best aligns with established utility ratemaking practice for the reasons put forward in the Application[15.] Further, the charges under the proposed EBS and Standby Service (SS) tariffs and the approved OATT cannot be the same as the charges applicable under bundled service for the following reasons:

(1) The RtR charges are applied on the basis of aggregate LRS load and generation; they are not customer-class specific and are therefore incapable of adjustment in respect of individual class R/C ratios.

(2) Notwithstanding the R/C ratio adjustment above, the charges in the two markets are outcomes of two separate ratemaking processes, which differ in terms of total revenue requirement, costing methodology and rate design. The alignment of these charges would be impractical as they apply to different usage determinants.[16]

[14] CA Evidence, Exhibit N-34, page 3, lines 12-15.
[15] NS Power Application, Exhibit N-16, Appendix 11, Distribution Tariff Rate Strawman Report, Section 9.2, page 51.
[16] The generation fixed costs are recovered from bundled service customers through either both energy and non-coincident demand charges (ratcheted or non-ratcheted) or only energy charges as is the case with the residential and Small General Customer classes whereas in the RtR market they are proposed to be recovered through coincident demand charges from non-class specific LRS loads. Further, the generation-related ancillary service costs,

(3) Adjustments to the OATT to offset the effects of items 1 and 2 above for the RtR market could undermine the non-discriminatory foundation of the OATT.

NS Power recommends the Board not adopt the CA's recommendation in this regard.

4.2 Generation Energy Charges

The CA expresses concern with respect to the generation energy charges in the proposed EBS Tariff. Mr. Chernick recommends the Board make the following changes:

> Reorganize the generation energy charges, so that each LRS pays for the value of the top-up energy that it takes from NS Power and is paid the value of the energy it spills to NS Power, without the multiple levels of assumptions required in the NS Power approach.[17]

NS Power believes this recommendation is addressed through the Company's response in Section 3.1 above.

4.3 Fixed energy charge

In its evidence, the CA expressed concerns about the proposed RtR rates and recommends that the Board should "[r]educe the fixed energy charge to reflect the difference between the embedded energy-allocated costs and the marginal costs used in setting the spill rates."[18] The CA further states that the Board should, "[i]nstruct NS Power to include all

accounted for under the OATT, are all recovered through non-coincident demand charges applicable to non-class specific LRS loads. The transmission costs in the bundled service market are classified about 1/3 to demand and 2/3 to energy in the COSS and are recovered by either both energy and demand charges or only energy charges as is the case with generation costs above. Under the OATT all of the transmission costs are classified to demand and are recovered through non-coincident demand charges as applicable to non-class specific LRS loads. There are also further differences in transmission revenue requirements as applicable to Open Access and Bundled service markets.

[17] CA Evidence, Exhibit N-34 page 3, lines 16-19.

[18] CA Evidence, Exhibit N-34 page 3, lines 20-22

avoidable energy-related costs in its computation of variable generation costs, further reducing the fixed energy allocated generation charge."[19]

NS Power does not recommend the Board adopt these recommendations. NS Power confirms that energy-related generation fixed costs not recovered through the top-up rate will be recovered through the fixed cost portion of the Renewable to Retail Transition Tariff (RTT). Fuel-related savings or costs created by the RtR market will be applied through the Annual Energy Cost Adjustment of the RTT.

NS Power proposes to use a marginal cost approach to recovery of fuel costs in the RtR market because the unique nature of the RtR load, with its unpredictable pattern of hourly consumption and low load factor, makes the application of the embedded cost approach unsuitable. This is consistent with the costing treatment of similarly unique loads under the following below-the-line tariffs: Shore Power, One Part Real Time Pricing (1P-RTP), Generation Replacement and Load Following (GRLF), Wholesale Market Top-up/Backup Service and Wholesale Market Non-dispatchable Supplier Spill (BUTUS). The annually adjusted rate process applied in such cases makes for minimum fuel cost risk to bundled service customers. As is the case with other marginal cost-based below-the-line rates, it would not be appropriate to adjust the RtR rate for the difference between the marginal and average fuel costs for the purpose of keeping these rates equal.

However, fuel cost transfers between NS Power's Bundled Service customers and the RtR market will be prevented through the "Annual Energy Cost Adjustment" component of the RTT which complies with the provisions in Section 3G(2) of the *Electricity Act* that NS Power customers are not to be negatively affected by the introduction of the RtR market.

[19] CA Evidence, Exhibit N-34 page 3, lines 23-25

4.4 Stranded Fixed Energy-related Costs

The CA stated at page 10 of its Evidence as follows:

> NS Power does not appear to have provided for recovery of the full stranded fixed energy-allocated costs, since this factor would be recovered only from the top-up energy. I see no reason that the fixed-cost energy adder should not be recovered as a stranded-cost charge on all kWh delivered.[20]

NS Power confirms that energy-related generation fixed costs not recovered through the top-up energy charge in the EBS will be recovered through the fixed cost portion of the RTT. As such, no changes are required to the Company's Application to address this concern.

The Company notes that in deriving the RtR tariff rates, it has employed the Cost of Service (COS)[21] framework applicable to bundled customer rates, and cost information vetted through the most recent (2013) General Rate Application.[22]

4.5 Generation Locational Loss Factors

The CA takes issue with NS Power's proposed treatment of transmission system losses. Mr. Chernick recommends that the proposed RtR rates should "[r]ecognize the effect of renewable generator location on line losses for LRS billing."[23]

NS Power submits that the CA's recommendation with respect to this issue should not be adopted. Network Integration Transmission Service[24] will be applicable to the LRS's

[20] CA Evidence, Exhibit N-34, page 10, lines 10-13.
[21] Nova Scotia Power 2013 Cost of Service Study, Board Decision 2014 NSUARB 53, March 11, 2014.
[22] Nova Scotia Power 2013 General Rate Application, Board Decision 2012 NSUARB 227, December 21, 2012.
[23] CA Evidence, Exhibit N-34, page 4, lines 3-4.
[24] Network Integration Transmission Service is firm transmission service provided under the OATT to the Network Customer (LRS) for the delivery of capacity and energy from its designated Network Resources (RtR generation) to service its Network Loads (aggregate RtR Load plus losses) on a basis that is comparable to the NS Power's use of the transmission system to reliably serve its retail and wholesale power customers.

transactions and as such the System Average Loss Factor is applicable to LRS billing for transmission service by NS Power. RtR generation resources are designated as Network Resources. As a result, their locational effects are accounted for in the determination of the System Average Loss Factor, which is updated annually and posted to the NS Power OASIS site by the NSPSO.

The Generation Locational Loss Factors as provided in the Company's response to CA IR-1,[25] referred to by Mr. Chernick, are not applicable to the calculation of charges to the LRS for network transmission service under the OATT. The values in the Generation Locational Loss Factors table provided in CA IR-1 represent a "snapshot" of the system losses for conditions under a winter peak base case and are not applicable to all hours through a given year. Overall system losses vary on a continuous basis and result from the combined effect of the current generation mix (inclusive of NS Power, RtR and Wholesale generation mix), the NS Power transmission system configuration (i.e. which lines are in/out of service), the Nova Scotia system load, and import/export levels. As a consequence, an average loss factor is computed annually based on the hourly calculated transmission system losses from the previous calendar year.

Application of locational losses exclusively applied to the LRS' RtR transmission service could be viewed to be discriminatory treatment, if not applied to other market participants using Network Integration Transmission Service (including NS Power itself). Such application to NS Power's Network Integration Transmission Service would result in geographically differential cost structures that would have to be rationalized in the COS model, otherwise bundled service rates could differ depending on customer location.

[25] CA IR-1, Exhibit N-17.

4.6 Capacity Contribution

In the CA's evidence Mr. Chernick expresses concern with respect to the Company's approach to charging for standby capacity[26] and recommends the Board, "[r]equire that NS Power continue to work with stakeholders on the capacity contribution of wind and other renewable resources, as well as the avoided capacity-related costs."[27]

The most recent description of NS Power's methodology for recognizing the capacity contribution, or Effective Load Carrying Capability (ELCC), of wind generation is included in the NS Power 10 Year System Outlook which was filed non-confidentially with the Board in June 2015 and is publicly available.[28] The report discusses the results of two commonly used methodologies for assessing Effective Load Carrying Capability (ELCC) of wind generation: Loss of Load Expectation (LOLE) and Cumulative Frequency Analysis. Both methodologies show that the capacity value of wind generation (assumed in the 2014 IRP to be at 17% for NRIS projects and 0% for ERIS projects) are reasonable. NS Power will update wind generation ELCC studies using both of these methodologies for assessing capacity value of wind with 2015 data. The results of the studies will be published in the 2016 10-Year System Outlook.

To address the CA's concern, NS Power agrees to continue to work on updating its assessment of ELCC of wind generation and share the data with stakeholders on the capacity contribution of wind as well as the avoided capacity-related costs. NS Power's practice is to include any changes to the ELCC of wind generation in the next applicable Annually Adjusted Rates application.

[26] CA Evidence, Exhibit N-34, pages 12-13, lines 21-25 and 1-17.
[27] CA Evidence, Exhibit N-34, page 4, lines 5-7.
[28] This report is issued annually, and can be found on the UARB website under Matter Number M06966, and NS Power's OASIS website.

4.7 Language in Distribution Tariff

The CA expresses concern with respect to certain language in the proposed Distribution Tariff (DT) and recommends that NS Power "[r]econcile the RtR language on non-power charges with that in the full service tariffs."[29] Specifically, Mr. Chernick states at pages 13-14 of his evidence:

> First, in the proposed distribution tariff for RtR service, NS Power states that "the DT Charges shall include…any applicable costs incurred by NS Power resulting from performance of repairs, changes, renewals, improvements or replacements outside of normal working hours, at the RtR Customer's request" (Appendix 17, page 11). It is not clear why this language (which does not appear in the full-service tariffs) is included here, and whether it is intended to cover any situations outside those already covered by NS Power's more detailed Regulations. For example, the Regulations do not appear to contemplate charges to full-service customers for any repairs (except for vandalized streetlights). Unless NS Power can justify this language, it should be deleted. The same rules should apply to all customers.[30]

NS Power recommends the Board not adopt the CA's recommendation. The Company's practices will be consistent for both bundled service customers and RtR customers.

The language in the DT reflects NS Power's current practice for full service customers who are charged for incremental costs associated with performing work outside NS Power's normal working hours, at a customer's request. In the case of an RtR customer, such charges will be included in the LRS invoice for pass through to the applicable RtR customer.

It is appropriate that the DT language be aligned with the OATT language in this regard as both are open access tariffs. The revision of the Company's bundled service tariffs or Regulations for the purposes of consistency with the DT is not necessary or within the scope of this proceeding. NS Power's Regulations set out specific charges for customer-

[29] CA Evidence, Exhibit N-34, page 4, lines 8-9
[30] CA Evidence, Exhibit N-34, page 13-14, lines 20-21 and 1-9.

requested services such as after-hours connections, reconnections and wiring inspections. Other miscellaneous customer-requested, after-hour services are addressed under Regulation 7.1 which provides for recovery of actual costs incurred by the Company. The Regulations serve the purpose well and enable NS Power to recover appropriate costs for the transactions referred to above.

4.8 RtR Revenues

In its evidence, the CA recommends the Board direct NS Power to "[r]equire that all RtR revenues from charges for fuel, purchased power and ancillary services flow through the FAM."[31] NS Power confirms that it intends to include the fuel portion of RtR revenues, including the fuel portion for purchased power (i.e., spill) and ancillary services, in the Fuel Adjustment Mechanism (FAM). This is consistent with the treatment of other below-the-line tariffs and OATT. NS Power will make the necessary adjustments to the FAM reports.

[31] CA Evidence, Exhibit N-34, page 4, lines 10-11.

5.0 SWEB RECOMMENDATION

In its evidence, SWEB takes issue with how the proposed RtR tariffs have been calculated and recommends the Board "…remove the RTR Transition Tariff from the proposed market and reassess others to ensure they are truly cost-based..."[32]

The development of all of the proposed RtR tariffs, including the RTT, has been guided by the legislative framework and established regulatory practice. Section 3G(2) of the *Electricity Act* provides that NS Power customers are not to be negatively affected by the introduction of the RtR market and that Retail Suppliers and their customers are to be responsible for all costs related to the provision of service by the Retail Supplier to its customers that would have otherwise been the responsibility of NS Power. The RTT is required to ensure the cost of generation investment undertaken by the Company to serve current and future customers is not transferred to its remaining bundled service customers. Without the RTT, costs incurred by NS Power to serve customers opting for RtR service, either in the past or in anticipation of serving this load in the future, would be transferred to NS Power's remaining customers.

NS Power recommends that SWEB's recommendation with respect to the removal of the RTT not be adopted.

[32] SWEB Evidence, Exhibit N-35, page 2, lines 14-16.

6.0 ECI RECOMMENDATIONS

ECI recommends various changes to the Board based on its position on behind-the-meter (BtM) sales.[33] The Company's position on the issue of BtM sales is set out below in Section 8.

ECI also recommends the following changes to the Company's proposed LRS Terms and Conditions (LRS T&Cs).

(1) ECI recommends that the requirement in section 9.1 for contracts to be in writing be eliminated in order to allow contracts to be executed by telemarketing or electronic means.[34]

NS Power acknowledges that Section 30 of the Board's draft Retailers Regulations contemplate contracts between the LRS and the Retail Customer being completed through telemarketing sales over the telephone and through electronic communication as well as signed written contracts. As such, NS Power agrees to delete the requirement for a "written" contract in Section 9.1 of the LRS T&Cs in order to permit non-written contracts with respect to Small Volume Customers. However, the Company notes that an LRS will still be responsible for ensuring compliance with Section 9.4 and 9.6 of the LRS T&Cs and any other provisions with respect to the contents of such contracts.

(2) ECI recommends that Section 11.5 of the LRS T&Cs specify a maximum seven-day timeframe for NS Power to transfer a customer to Retailer-supply.[35]

NS Power agrees with an established timeframe for the transfer of customers to Retailer-supply. However, installing a new interval meter and establishing

[33] ECI Evidence, Exhibit N-32, pages 8-12.
[34] ECI Evidence, Exhibit N-32, page 4, lines 16-24.
[35] ECI Evidence, Exhibit N-32, pages 4-5, lines 26-33 and 1-20.

telecommunications in order to transfer a customer could take longer than 7 days. As such, NS Power proposes the timeframe be extended to 14 calendar days, with the understanding that this could be revisited as the market develops.

(3) ECI recommends that section 11.7 of the LRS T&Cs be amended to clarify that only outstanding indebtedness that is in arrears would preclude NS Power from transferring a customer to Retailer-supply.[36]

NS Power agrees with the recommendation and agrees to revise the LRS T&Cs to exclude current charges not yet in arrears. NS Power notes, however, that the Company will still require the right to disconnect in the event that current charges go into arrears.

(4) ECI recommends that sub-section 14.5.5 of the LRS T&Cs, which requires the form of the LRS' bill to be in a form acceptable to NS Power, be removed on the basis that ensuring NS Power's DT charges are correctly reflected on the LRS's bill is a responsibility of the Board under the Board's proposed Code of Conduct.[37]

NS Power agrees with this recommendation and will revise the LRS T&Cs s.14.5.5, based on the understanding that ss.10.3 of the Board's Code of Conduct remains as currently written.

[36] ECI Evidence, Exhibit N-32, pages 5-6, lines 22-23 and 1-12.
[37] ECI Evidence, Exhibit N-32, page 7, lines 9-20.

7.0 MULTEESE RECOMMENDATIONS

In in addition to its support for the Company's proposed amendments to the NS Power Regulations, the OATT, GIP and Market Rules, the evidence filed by the Board's consultant, Multeese, indicates support for the proposed DT, EBS, SS and RTT, subject to certain adjustments to the charges.[38]

7.1 Deferred Costs

With respect to the DT, Multeese stated as follows:

> I support NS Power's approach to the development of the charges in its DT, but the charges themselves are likely too high because the cost of service on which they are based includes $83 million of deferred costs. They should be adjusted.[39]

Multeese further confirms that it supports the design of the EBS, SS and RTT but recommends these rates also be adjusted to remove the $83 million of deferred costs.[40] Multeese also recommends that in doing so the Company use a proration method:

> Given that the Company does not have a functional breakdown of the $83.3 million, and given that the $83.3 million is all fixed costs, one way to remove it from the cost of service would be to prorate it across the four functions (generation, transmission, distribution and retail) on the basis of the fixed portion of revenue requirement in each.[41]

The deferral amount of $83.3 million is a cumulative amount over the 2013 and 2014 test years. The difference between the revenue requirements that gave rise to the current bundled service rates and the revenue requirement on which Cost of Service Study was based is $35.2 million.

[38] Multeese Evidence, Exhibit N-31, page 3.
[39] Multeese Evidence, Exhibit N-31, page 3, lines 4-6
[40] Multeese Evidence, Exhibit N-31, pages 3, 9, 11 and 13.
[41] Multeese Evidence, Exhibit N-31, page 5, lines 26-29.

NS Power agrees that the revenue requirement should be reduced by the deferral in the DT, EBS and SS and RTT tariffs and accepts Multeese's recommendation to apportion this reduction among the generation and distribution and retail functional areas on the basis of relative shares of these areas in the total fixed cost revenue requirement. The amount to be credited to generation is $20.5 million and distribution and retail is $10.2 million for a total of $30.7 million. Removal of the deferred amounts represents an overall reduction in the RtR tariffs by approximately 4%. The Company proposes to include this update to the DT, EBS and SS and RTT tariffs in its Compliance Filing.

7.2 Calculation of Top-up and Spill Rates in the EBS

While Multeese supports the administrative charge of the EBS, in addition to the removal of deferred costs, it has recommended the calculation of the top-up and spill rates be adjusted. Specifically, Multeese recommended as follows:

> The other components of the top-up rate and the spill rate are inappropriately calculated from avoided costs that are levelized over ten future years, the first of which is 2018. These could be recalculated for 2016. However, I do not believe this is necessary. Given the developing nature of the RtR market, and given NS Power's proposal to annually adjust components of rates such as those based on avoided costs, I would suggest setting both the portion of the top-up rate that is dependent on avoided costs, and the spill rate to be equal to the Load Following rate.[42]

NS Power supports the use of annually adjusted rates but, does not recommend the Board adopt this recommendation. As discussed in the following section, it is important the rate reflect the cost differential between providing top-up service to the LRS and acquiring Spill service from the LRS. Further comments on this issue are provided in the Company's response to the SBA's recommendation that EBS services be priced on a real time basis. Please refer to Section 3.1 above.

[42] Multeese Evidence, Exhibit N-31, page 9, lines 19-26.

7.3 Incremental Cost in the EBS Top-Up Rate

Multeese has recommended NS Power provide further justification for the 1.38 cents kWh adder included in the EBS top-up rate:

> The 1.38 cents per Kwh adder that is included in the top-up rate needs further justification. In NSPI (Multeese) IR-7(c), the Company explains that this incremental adder is to cover the cost of ramping dispatchable generation up and down to follow the LRS net load and the cost of sometimes having to operate units at sub-optimal heat rates. However, costs such as these should already be captured within the Plexos simulations. An alternative explanation for this adder is provided in Section 5.5.2 of the Cary report, where it is proposed that a spread be created between the top-up and spill rates as a simple way to address any systematic variances in LRS loads and generation. In my view, such refinement is premature, and the approach used by the Company to assess it is based on an unlikely assumption of an LRS load that is the same in all hours. Once the RtR market develops and there are actual LRS loads and generation sources, this could be revisited.[43]

The 1.38 cents per kWh that is included in the EBS top-up rate represents the differential between the top-up costs over spill savings, determined through ten year cost simulations in the 2018-2027 period.[44] The information included in the Company's Application was illustrative of this cost differential and based on information developed in the most recent Integrated Resource Planning initiative. Commencing with the 2016 filing process for the 2017 Annually Adjusted Rates, the Company intends to use a fuel cost adder derived from a single test year.

In general, the costs of top-up energy are expected to be higher than energy savings from spill due to a high correlation of wind patterns across the province of Nova Scotia (i.e. energy spill from wind generation in the RtR market is expected to coincide with high wind generation on NS Power's system and deliveries of top-up energy would coincide with low levels of wind generation on NS Power's system). Under the economic dispatch

[43] Multeese Evidence, Exhibit N-31 pages 9-10, lines 27-31 and 1-8.
[44] Please refer to Attachment 1 of Multeese DR 25, provided in the Application, Exhibit N-16 (iii), provided electronically.

order, the Company avoids running more expensive thermal generation during periods of high wind generation. Thus, the avoided cost of thermal generation displaced by spill, occurring at the time of already high NS Power/contract wind generation, is lower than the incremental costs of thermal generation provided under top-up when NS Power/contract wind generation is low.

The derivation of the 1.38 cents/kWh was provided in Appendix 19A of the Application. The company notes this calculation will be adjusted in the Compliance Filing and future Annually Adjusted Rates applications**.**

8.0 BEHIND-THE-METER

A question has arisen as to the applicability of the RtR framework to generation behind the customer's meter (BtM). In the CA's evidence, Mr. Chernick stated as follows:

> In addition, I urge the Board to clarify that the RtR and LRS rates do not apply to generation behind the Customer's meter.[45]

The CA provided the following clarification on this point in response to an IR request from Port Hawkesbury Paper:

> Mr. Chernick believes that the RtR arrangement was intended to apply to a new service, in which renewable generators deliver energy to the NS Power distribution or transmission system and NS Power delivers that energy to the RtR customers, who contract for the bundled service from an LRS.
>
> With behind-the-meter generation, NS Power is not accepting renewable energy onto its system and transporting to the RtR customer. The customer remains an NS Power customer for all the power flowing through its meter. In general, the same tariffs are charged to all customers, regardless of what they do behind their meter.
>
> Mr. Chernick does not see any important ratemaking difference between a customer reducing its load with an energy-efficiency measure, conversion from electricity to another fuel, or distributed generation (renewable or otherwise). Nor does he see any relevance to whether the distributed generation is owned by the customer or another party.
>
> Whether the Board should consider generation located off the customer's property, but connected to the customer's load by non-utility lines, to be behind the meter is a matter of jurisdictional law, related to the nature of a public utility. [46]

Similarly, the Board's Consultant, ECI, has stated:

[45] CA Evidence, Exhibit N-34, page 4, lines 12-13.
[46] CA (PHP) IR-1, Exhibit N-39, Dec 11, 2015, lines 9-23.

> The Retailers Regulations are drafted such that BtM arrangements are excluded from the licensing compliance requirement that the renewable low-impact electricity generation exceeds sales and allow a customer to use Bundled Service as a backup supply. NS Power's RtR Application contemplates BtM sales being subject to RtR and Distribution Tariffs. Depending whether the Board finds that BtM sales are within the RtR framework or are permitted outside the RtR framework, the Retailers Regulations should be amended.[47]

The issue of the application of the RtR framework to BtM transactions, as both Mr. Chernick and ECI note, is primarily one of legal interpretation which should be the subject of argument in closing submissions. NS Power sets out its position in this Rebuttal Evidence to assist the Board in understanding the Company's position, however, reserves the right to include its legal argument on this issue in its closing submission.

In response to NSUARB IR-3(a), NS Power had identified two scenarios where BtM generation is currently permitted, namely net metering arrangements (as provided under s. 3A of the *Electricity Act*) and generation operating under the terms and conditions of the GRLF tariff. The Company notes, however, that net metering arrangements under s. 3A of the *Electricity Act* would not have any bearing on RtR service as the net metering provisions of section 3A apply only to a customer generating electricity for its own consumption.

A question which has arisen in the context of this Application, is whether sales of renewable low-impact electricity by a BtM generator to a single customer *which is not otherwise subject to regulation under the Public Utilities Act*, is subject to the RtR framework, including the Board Electricity Retailers Regulations.

The activities or services to which the RtR framework applies are now determined by the RtR provisions in the *Electricity Act*, regardless of whether it is a "new" service or one that displaces prior services that had been provided by NS Power. NS Power acknowledges that there may be some ambiguity in the RtR provisions in the *Electricity*

[47] ECI Evidence, Exhibit N-32, p. 8, lines 2-8.

Act. However, based on the Company's review of the legislation, BtM service by a generator would come within the RtR framework as such an entity would fall under the definition of "retail supplier" if it was supplying renewable low-impact electricity to its customer for that customer's own consumption in the Province. The term "retail supplier" and the term "retail customer" are defined in subsection 2(1) of the *Electricity Act* as follows:

> (c) "retail customer" means a person who uses, for the person's own consumption in the Province, electricity that the person did not generate;
>
> (d) "retail supplier" means a person who is authorized to sell renewable low-impact electricity in accordance with this Act and the regulations, but does not include a wholesale customer (defined in subsection 2(1)(d) as NSPI or a municipal utility);

As such, if the electricity generated and sold is "renewable low-impact electricity," and otherwise meets all the other aspects of RtR transactions, the generator/supplier will fall within the definition of "retail supplier" and would be required to obtain a retail supplier licence from the UARB whether it was selling to one customer or multiple customers. Upon licencing, all the benefits and burdens of RtR framework would apply, including the RtR tariffs. Sections 3C-3E provide as follows:

> 3C (1) Effective on the date prescribed in the regulations,
>
> (a) a retail supplier who meets the requirements in Section 3D may sell to a retail customer; and
>
> (b) a retail customer, other than a customer of a municipal utility, may purchase from such a retail supplier, renewable low-impact electricity generated within the Province.
>
> …
>
> (3) The Board has all the power and authority necessary to implement this Section.
>
> 3D (1) No person shall act or purport to act as a retail supplier unless the person has been issued a retail supplier license pursuant to Section 3E.

(2) Subsection (1) does not apply to a person who is

(a) deemed to be a public utility by the regulations; or

(b) a member of a class or category of retail suppliers prescribed by the regulations.

3E (1) A person may apply for a retail supplier license in the form and manner prescribed by the regulations.

(2) Subject to any qualifications prescribed by the regulations, the Board may issue a retail supplier license to an applicant, subject to any terms and conditions the Board considers appropriate and any terms and conditions prescribed by the regulations.

The existing Regulations do not prescribe any class or category of retail suppliers that are exempted from the requirement under subsection 3D(1) of the *Electricity Act* that every retail supplier obtain a licence before selling renewable low-impact electricity to a retail customer.

If the Board determines the RtR provisions of the *Electricity Act* do not apply to all sales of renewable low-impact electricity from BtM generation, the Board's Retailer Regulations and the licencing requirements established by the Board would not apply to such transactions as the BtM generator would not be a "retail supplier" under the *Electricity Act* unless it specifically made application and became licenced as a retail supplier. However, if RtR provisions did not apply and the supplier was not licenced, the Company notes that such transactions could still be impacted by and subject to the *Public Utilities Act* as it is only on being licenced as a retail supplier that a BtM generator would be deemed not to be a public utility.

9.0 CONCLUSION

NS Power requests that the Board approve the Company's Application as filed subject to the revisions recommended by NS Power in response to the evidence filed by the Intervenors and the Board's Consultants as set out above. Specifically, NS Power requests:

(1) The Board not adopt the SBA's recommendation that Energy Balancing Services be priced on a real time basis.

(2) In response to the SBA's request for a Quarterly Market participation report, the Board accept the submission of an RtR market report within the annual Wholesale Market Report with a semi-annual update to the Board on the specific RtR market activity. The contents of the report and the update shall be as set out in Section 3.4 above.

(3) The Board not adopt the CA's recommendation that the distribution and transmission rates be the same as for full service customers, and reflect the R/C ratios in generation charges, to make the RtR transition revenue-neutral.

(4) The Board not adopt the CA's recommendations to "[r]educe the fixed energy charge to reflect the difference between the embedded energy-allocated costs and the marginal costs used in setting the spill rates" or to "[i]nstruct NS Power to include all avoidable energy-related costs in its computation of variable generation costs, further reducing the fixed energy allocated generation charge."

(5) The Board not adopt the CA's recommendation that the RtR rates recognize the effect of renewable generator location on line losses for LRS billing.

(6) To address the CA's concern with respect to the capacity factor of wind, NS Power agrees to continue to work on updating its assessment of ELCC of wind

generation and share the data with stakeholders on the capacity contribution of wind as well as the avoided capacity-related costs.

(7) The Board not adopt the CA's recommendation that the Company reconcile the RtR language on non-power charges with that in the full service tariffs.

(8) The Board not adopt SWEB's recommendation with respect to the removal of the RTT.

(9) The Board adopt ECI's recommendation that Section 9.1 of the LRS T&Cs be amended by deleting the word "written".

(10) In response to ECI's recommendation, Section 11.5 of the LRS T&Cs be amended to specify a maximum 14 day timeframe for NS Power to transfer a customer to Retailer-supply.

(11) The Board adopt ECI's recommendation that section 11.7 of the LRS T&Cs be amended to exclude current charges not yet in arrears.

(12) The Board adopt ECI's recommendation to remove Section 14.5.5 of the LRS T&Cs, which requires the form of the LRS' bill to be in a form acceptable to NS Power.

(13) The revenue requirement in the DT, EBS, SS and RTT tariffs be reduced by the amount of the $83.3 million deferral and the Board adopt Multeese's recommendation to apportion this reduction among the generation and distribution and retail functional areas on the basis of relative shares of these areas in the total fixed cost revenue requirement.

(14) The Board not adopt Multeese's recommendation regarding the adjustment to the calculation of the top-up and spill rates in the EBS tariff.