Synapse
Energy Economics, Inc.

September 5, 2024

Crystal Henwood
Regulatory Affairs Officer/Clerk of the Board
Nova Scotia Utility and Review Board
3rd Floor
1601 Lower Water Street
Halifax, Nova Scotia B3J 3S3

RE: M11822 – Application for Approval of the 2024/25 Time-Varying Pricing Tariffs

Dear Ms. Henwood:

Synapse Energy Economics, Inc. (Synapse) submits these comments regarding NS Power's Application for Approval of the 2024/25 Time-Varying Pricing Tariffs, which it filed on July 31, 2024, in M11822. We file these comments per the Utility and Review Board's August 8, 2024, letter in this matter.

Synapse has reviewed NS Power's Application, including the 2024 TVP Consensus Agreement attached as Appendix A, as well as responses to information requests. The Consensus Agreement proposes conversion of the Domestic TVP tariffs to standard tariffs with modest changes in the prices and increases in target enrolment, no changes to the Commercial TOU and CPP tariffs, the introduction of a pilot Multi-Unit Residential Building (MURB) TOU tariff with no demand charge, an update to the timing of TVP tariff development and evaluation, and several areas of focus relevant to the next tariff period. We provide specific comments regarding several of these proposals below.

Domestic TVP Tariffs as Standard Offerings

NS Power proposes to transition the Domestic time-of-use (TOU) and critical peak pricing (CPP) tariffs to standard offerings, rather than maintain the tariffs as pilot tariffs.[1] NS Power proposes to make this change for two reasons: (1) the Domestic pilot tariffs have been successful in achieving load shifting and customer uptake, and (2) designating the tariffs as "standard offer" tariffs will provide greater certainty to customers regarding the longevity of the tariffs, who otherwise may be hesitant to undertake significant behavioral changes and/or technology investments.[2] At the same time, NS Power states that it intends to continue to evaluate the Domestic TOU and CPP tariffs as part of its annual Evaluation,

[1] 2024 TVP Consensus Agreement, page 6.
[2] Response to NSPI(NSUARB)IR-3.

Measurement, and Verification (EM&V) filing, and that it intends for the TVP stakeholder process to continue to review and potentially recommend modifications to the tariffs on an annual basis.[3]

We agree that converting the tariffs to standard offerings would likely provide greater certainty to customers regarding the longevity of the tariffs, which could increase enrolment and investments in load-shifting technologies. We also support the Company's proposal to continue to report on the tariffs in the annual EM&V filing to ensure that the tariffs are operating successfully, and to potentially refine the tariffs through the TVP stakeholder process if modifications are warranted. We therefore do not oppose NS Power's proposal to convert the Domestic TVP tariffs to standard offerings, subject to their continued refinement through the TVP stakeholder process and the lifting of any enrolment caps, as discussed in greater detail below.

Domestic TVP Tariff Enrolment Targets

NS Power proposes to increase the target enrolment in the Domestic TOU and CPP tariffs to 7,000 and 3,500 respectively.[4] These targets appear reasonable and are aligned with NS Power's demand response targets as shown in its Load Forecast Report.[5] However, NS Power's response to our interrogatories suggests that the Company may limit enrolment if these targets are exceeded by more than a "modest" degree.[6] If these rates are no longer in the pilot stage, there is no apparent advantage of limiting enrolment in the rates, particularly because the rates provide more efficient price signals and benefits to the grid than the standard Domestic rate. Indeed, the Company's consultant, the Brattle Group, only recommended capping the number of participants "during the first couple of years," to "allow testing of customer understanding, acceptance and load response to the new rates."[7] Thus, while we support increasing the enrolment targets, we do not support capping enrolment in the Domestic TVP tariffs going forward.

Domestic TVP Tariff Modifications

NS Power proposes to update the TOU peak/off-peak pricing ratio to 2:1 relative to the standard rate, resulting in an on-peak price of 33.862 cents per kWh and an off-peak price of 11.426 cents per kWh. The Company also proposes to update its CPP price to 10 times the standard offer rate, which would increase the price to 169.31 cents per kWh. The Company explains that these changes are being

[3] Response to NSPI(Synapse)IR-1(b-c).

[4] 2024 TVP Consensus Agreement, page 6.

[5] M11689 – NS Power, 2024 Load Forecast Report, Figure 56, page 82 of 100. April 30, 2024.

[6] Response to NSPI(Synapse)IR-3 (a-b), "NS Power views these targets as goals which can be exceeded, by modest amounts, if there is sufficient customer interest."

[7] M09777 – NS Power, Time Varying Pricing Tariff Application, Appendix I. November 30, 2020, page 72.

proposed to "return these TVP Program tariffs to the initial designed price ratios [of 2:1 and 10:1] and maintain these price ratios going forward."[8] When asked to provide the rationale for maintaining these price ratios, NS Power responded that the Company initially proposed a 3:1 TOU price ratio and a 10:1 CPP price ratio based on a preliminary assessment of expected load impacts. The TOU price ratio was later revised to 2:1 following stakeholder consultation to provide "customers with a lower risk introduction to TOU rates."

While we appreciate the decision to establish the *initial* TOU and CPP price ratios at 2:1 and 10:1 respectively, these price ratios should not be blindly adhered to going forward, as they may not accurately reflect the value to the system of peak load reductions. As noted in a presentation by the Brattle Group in NS Power's 2020 TVP Application, "Rates should be cost-reflective to promote economic efficiency and equity."[9] Instead, we recommend that NS Power and stakeholders consider gradual adjustments to the price ratios in the future based on the following considerations:

1) The value of peak demand reductions, as reflected in marginal cost studies (or avoided cost analyses)
2) Customer acceptance and response
3) Maintaining relative stability of the rates (i.e., changes should be gradual)

Thus, while we support NS Power's proposed rate modifications for 2024/25, future modifications to the price ratios should be considered as part of the stakeholder process in light of customer acceptance and actual system avoided costs.

In addition, in response to Synapse(NSPI)IR-1 in M11823, NS Power proposes to revise the language in the Domestic CPP tariff regarding the hours during which a Critical Peak Event can be called to provide greater clarity to customers. The modification would replace the phrase "throughout the day" with the specific hours (6:00 am to 11:00 pm) that an event could be called. NS Power's proposed revisions are as follows:

> The Critical Peak Event is of a four-hour duration and can be called at any time between 6:00 AM and 11:00 PM~~throughout the day~~, Monday to Sunday, during the Winter Period November 1 through March 31.

[8] NSPI(Synapse)IR-2.

[9] M09777 – NS Power, Time Varying Pricing Tariff Application, Appendix I. November 30, 2020, page 27.

Synapse supports the proposed revisions to the Domestic CPP tariff language to provide greater clarity regarding the hours in which an event can be called.

Multi-Unit Residential Building Non-Demand Tariff

NS Power's proposed MURB TOU pilot tariff represents a positive development from the stakeholder engagement process, as it allows MURB customers to engage in load shifting without being penalized by the demand charge. The on-peak periods also apply to weekends and holidays, which should help address system constraints that occur any day of the year. For these reasons, Synapse supports piloting NS Power's proposed MURB TOU rate design.

However, we recommend that the MURB TOU tariff continue to be evaluated to ensure that it is cost-reflective. Specifically, we note that the on-peak to off-peak prices for the MURB tariff were not developed using the value of load shifting (i.e., avoided costs) as a benchmark. Instead, the prices were developed based on a "structural winners" comparison to ensure that (nearly) the same level of revenues is recovered from customers absent a load shift, and to provide financial benefits to MURB customers with and without load shifting to encourage enrollment in the tariff.[10] We recommend that the MURB TOU tariff continue to be refined to better reflect the value of load shifting. This should be accomplished by considering marginal costs (or avoided costs) in determining the rates in each period.

In addition, it is important that NS Power evaluate the extent to which the demand charge acts as a barrier to TOU participation for other commercial and industrial customers and continue to evaluate non-demand TVP rate designs for General Service customers, as discussed more below.

2024/2025 Areas of Focus

The Consensus Agreement lists eight Areas of Focus for 2024/2025. Synapse generally supports these areas of focus, with the following modifications:

<u>Demand Charges:</u>

We note that an assessment of demand charge impacts on General Service customers is notably absent from the Areas of Focus for 2024/2025. Synapse believes that the demand charge is likely to be a barrier to TOU and CPP participation for other General Service customers beyond the MURB sector, and therefore it is imperative that NS Power evaluate demand charge modifications or alternatives for its TVP offerings to General Service customers.

[10] NSPI(Synapse)IR-4.

Currently, NS Power's General Service TOU and CPP tariffs contain a demand charge of $10.55/kW of maximum demand, which applies during any hour of the day (i.e., a "non-coincident" demand charge). Thus, a customer that shifts load from on-peak hours to off-peak hours risks being penalized for shifting load if it results in a customer's peak demand increasing during off-peak hours. Further, non-coincident demand charges generally do not accurately reflect costs on the system, since most demand-related costs are related to coincident demands on the system (e.g., generation capacity, or aggregate customer demand at a feeder or substation).

Synapse recommends that NS Power evaluate the level of costs that are truly driven by an individual's non-coincident demands (e.g., an individual customer's transformer), and only recover those costs through a non-coincident demand charge. All other demand-related costs should be recovered through either an on-peak volumetric charge or a demand charge that only applies during on-peak hours.

Avoided Costs:

The Areas of Focus list for 2024/2025 includes a "review of system planning related values as applicable to TVP… including avoided costs." Synapse agrees with the review of avoided costs, but recommends that the discussion also include an assessment of the degree to which the TVP offering reflect avoided costs, with the potential for modifications to the tariffs to ensure that they are cost-reflective.

We thank the Board for the opportunity to provide these comments.

Sincerely,

M Whited

Melissa Whited
Vice President
Synapse Energy Economics, Inc.