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Crystal Henwood
Regulatory Affairs Officer / Clerk of the Board
Nova Scotia Utility and Review Board
3rd Floor, Summit Place
1601 Lower Water Street
Halifax, Nova Scotia B3J 3P6

Dear Ms. Henwood:

Re: Comments on Nova Scotia Power Inc.'s Final Integrated Resource Plan Report

Port Hawkesbury Paper LP ("PHP") has been an active participant in Nova Scotia Power Inc.'s ("NSPI") 2020 Integrated Resource Planning ("IRP") process, and is pleased to have the opportunity to provide its comments on NSPI's Final IRP Report, Powering a Green Nova Scotia, Together, filed with the Nova Scotia Utility and Review Board ("Board") on November 27, 2020 ("IRP Report").

It is clear from the IRP Report that NSPI's future planning is entering into an era of a new carbon constrained paradigm. A paradigm that will rely on more in-Province renewable energy resources and imports than in the past, and in which the provision of energy and capacity resources will be significantly more decoupled than previously.

As an energy intensive business and NSPI's largest customer, PHP has been fully engaged throughout the 2020 IRP development process, and has reviewed the IRP Report and supporting material in detail. It is clear to PHP that the results of the IRP process point in the direction laid out in the Action Plan NSPI has put forward in the IRP Report with respect to the need for a thermal plant retirement, redevelopment and replacement plan, a regional integration strategy, and a demand response program, and that the future development of more in-Province renewable energy and more robust and extensive regional electricity connections are the most viable path forward.

As the IRP Report also makes clear, during this paradigm shift there remains significant further analytical, technical and commercial work needed to be done to more explicitly understand the pace at which this transition should occur, and to better quantify the assumptions underlying this transition. As such, PHP is very supportive of the evergreen approach to the IRP put forward by NSPI and the continuing analysis and reporting suggested by the IRP Report. PHP intends to remain a very active participant in the ongoing evergreen IRP process.

Consistent with the modelling findings of the IRP Report and as the Board is aware, PHP has been working for some time on the development of a potential large scale wind project to support a portion of its electricity requirements. Wind data collection is underway in that regard as is continuing project development due diligence. The findings of the IRP have leant even further impetus to these already ongoing efforts, as has the subsequent release of the Federal government's recent new carbon reduction strategy, A Healthy Environment and a Healthy Economy, on December 11.

In this regard, PHP has noted with significant interest the extensive analytical comments of Synapse Energy Economics, Inc. ("Synapse") on the IRP Report, which were filed on December 23. In particular, Synapse noted at pages 6-7 of their comment document, that they analyzed the effect of valuing incremental carbon reductions (ie. beyond those associated with the Provincial SDGA's allowances for CO2 emissions for NSPI) on the resource builds and the net present value of revenue requirements differences across comparable scenarios. Synapse concluded at page 10 of its comments that in its view:

> This analytical exercise shows that the overall differences in cost exposure for ratepayers between earlier retirement of the coal fleet and later retirement of the coal fleet is relatively small. It also demonstrates that earlier wind resource installations (even with longer timelines for coal fleet retirement) can easily be seen as more beneficial to ratepayers (i.e., lower NPVRR) if either or both of (1) incremental carbon emission reduction valuation, or (2) lower cost wind through capturing of economies of scale, come to fruition.

They further concluded at page 12 that:

> Based on the above discussion concerning incremental carbon emission reductions, we recommend consideration of a retirement path that looks to close all units in the earlier part of the planning horizon, closer to 2030 than 2040. NSPI's Action Plan and Roadmap elements analyzing thermal plant retirement issues (Action Plan item #3 and Roadmap elements #6 and #3) and the overall evergreen process (Roadmap element #8) should continuously review cost and benefit assumptions concerning the retention timeline for the coal units.

Based on its review and analysis, Synapse has recommended at pages 18-19 that NSPI should initiate a wind procurement strategy targeting a potential procurement of up to 631MW of wind deployment by 2025 versus the 50-100 MW of new wind targeted by NSPI in that frame, so as to not potentially miss the economic opportunity to accelerate the deployment of in-Province resources. They note their view that any concerns with the ultimate level of wind resource integration allowed, which is premised in part on the status of the Reliability Tie and other assets that may be deployed to ensure reliable operation, can be addressed through ongoing Roadmap analysis. They also note the view expressed in certain other stakeholder comments that the larger levels of wind power could be installed but operational limitations could be used for those periods when stability or related concerns matter to reliability.

Synapse is of the view that the potential to add more renewable in-Province resources earlier than suggested by the IRP Report may be both feasible and cost effective and that at a minimum

the opportunity to do so should not be foreclosed. As PHP noted above, the direction of more in-Province renewable generation is clear from the IRP but the appropriate pace is not yet fully defined. In this regard, NSPI's IRP Report Roadmap itself calls for further system stability studies to assist in determining if higher amounts of incremental wind can be achieved earlier, and for tracking to occur with respect to the installed cost of wind and the value of incremental reductions in GHGs. To the extent continuing efforts by all parties can advance the electricity transition without causing reliability issues or uneconomic costs, PHP believes this would be beneficial to all stakeholders and looks forward to continuing to work with interested parties to achieve this, consistent with the evergreen approach to the IRP.

We hope these comments will be helpful to the Board, NSPI and all stakeholders.

Regards,

David S. MacDougall

cc. NSPI
Interested Parties