

SUBMISSION TO THE ENERGY AND UTILITIES BOARD: NB POWER 2023/2024 GENERAL RATE APPLICATION, MATTER 541

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CONSERVATION COUNCIL OF NEW BRUNSWICK

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Conservation Council of New Brunswick
Conseil de conservation *du* Nouveau-Brunswick
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INTRODUCTION

- The rate hearing process is complex and overwhelming for New Brunswick non-profit groups.
- Our capacity is limited.
- We are here because the EUB process is an important opportunity to engage on electricity issues in New Brunswick.
- Our contribution colours outside the lines somewhat.
- Understand that our concerns likely cannot be fully addressed immediately, but believe our recommendations can help us avoid ongoing higher than required rate increases.

TODAY'S FOCUS

- Today's presentation mirrors the Conservation Council's submission, including our concerns about:
 1. Carbon pricing liabilities
 2. Worsening energy poverty
 3. Underinvestment in renewable energy and its longer-term effects on rates.

NOT SHIFTING QUICKLY ENOUGH

- Rate increase is significantly beyond expectations set out in the 2019 Ten-Year [Plan](#) of 1.75%.
- NB Power attributes 47% of the proposed rate increase to increased fuel and purchased power costs.
- Agree last year and this year present challenges. Despite global factors, the rate increase is at least partly due to NB Power being:
 1. Over reliant on fossil fuels and unreliable nuclear increasing its carbon liability.
 2. Under investing in renewable energy and energy efficiency.

CARBON LIABILITY IS NOT GOING AWAY

- The fossil-dependent generating stations represent a significant carbon liability.
- A commitment to least cost should include avoiding dispatch decisions that increase carbon pricing payments.
- NB Power shows a budgeted carbon charge of \$22.2-million for next year, a significant jump over the expected payment for this fiscal of \$4.6-million, an increase of \$17.6-million.
- We urge the EUB to further investigate the dynamics behind the expected jump in carbon price to determine the contributing factors.
 - Determine what proportion of the cost is from the carbon price increase versus in-province dispatch, and imports or export sales decisions that affect greenhouse gas emissions, and exceed emissions intensity standards.

RENEWABLE PORTFOLIO STANDARD SHOULD BE MET

- NB Power forecasting sourcing 35% renewable energy for 2023/2024 instead of the required 40% RPS
 - Kent Hills wind farm will be offline for part of the year, and increased costs from importing of renewable energy from out of province (p. 53).
- NB Power has also run a sensitivity run in PROMOD to close that 5% gap. The cost of compliance was estimated at \$14.2 million.
- The cost to comply with the RPS is lower than the cost of carbon.
- The least-cost response is to avoid the carbon price, especially as it rises year over year.

POINT LEPREAU IS UNDERPERFORMING

- The Point Lepreau Nuclear Generating Station is a costly and unreliable source of electricity relative to NB Power's post-refurbishment expectations.
- The outcome is that NB Power has higher capital costs than budgeted, is burning more dirty and expensive fossil fuels than it should, paying more carbon tax than it needs to, and buying high-priced power on the open market to meet winter peak demands.
- The Board should independently assess the non-nuclear and nuclear operations of Point Lepreau Generating Station based on actual experience, rather than NB Power capacity factor and outage projections.

RATE INCREASE WORSENS ENERGY POVERTY

- NB Power's proposed rate increase constitutes a risk for low-to-moderate income households.
- Efficiency Nova Scotia's energy poverty [tracking tool](#) shows that for every one cent rate increase, the number of households experiencing energy poverty in that province increases two to three per cent.
- A household is considered to be in energy poverty if after-tax income energy expenditures (household and transportation) are double the national average of three percent (e.g., 6%).

RATE INCREASE WORSENS ENERGY POVERTY

- The Canadian Urban Sustainability Practitioners ([CUSP](#)), an organization studying energy poverty, there are 114,790 households in New Brunswick meeting the six percent energy expenditure threshold.
- NB Power says there are 40,000 households meeting the utility's Enhanced Energy Savings Program ([EESP](#)) threshold of earning \$70,000 or less.
 - 13,000 households on the wait list for this program.
 - The target investment, given available funding, is 3,000 electric and 700 oil-heated homes per year.
 - The average NB Power investment in these homes is \$10,000.

RATE INCREASE WORSENS ENERGY POVERTY

- NB Power estimates that the rate increase proposed (e.g., 8.9%) will increase the average customer's electricity bill by \$200 per year, while the average participant in the EESP achieves approximately \$500 per year in bill savings.
- These potential savings suggest the need to significantly expand the program's reach to assist households that need it and to prevent growth in energy poverty.
- At the current rate of home retrofits under the Enhanced Energy Savings Program, it will take about 10 years to reach all 40,000 eligible homes.
- Using the CUSP estimate, it will take 31 years to reach all households currently dealing with some level of energy poverty.

RATE INCREASE WORSENS ENERGY POVERTY

- Assuming the EUB does not agree energy poverty is a safety and equity issue within the meaning of the *Electricity Act*, another perspective is that targeting lower income households has system benefits in terms of reducing load, and peak demand given these households tend to be older and less energy efficient.
- These dynamics are worth exploring now or in future hearings given metrics suggesting up to 40 per cent of NB households face energy poverty, and that the residential sector is the biggest load on the system.
- We urge the EUB to mandate NB Power to complete such a study and submit it as part of its rate hearing this year or for 2024/2025.

WE CAN DO BETTER ON ENERGY EFFICIENCY

- To keep families financially whole, it is important to consider the value of energy efficiency in muting the effects of rate increases.
- The energy efficiency [regulation](#) requires an investment of 0.5 percent of retail sales for 2023/2024, rising to only 0.75 percent in 2029, a level well below our potential of at least 1.7 percent identified by Dunsky Energy Consulting in 2020.
- The report says almost \$80-million annual investment could put NB on the path to achieving greater savings. We can lower household bills even as rates increase.

SCENARIO MODELING CAN HELP MAP THE PATH FORWARD

- The Ecology Action Centre, in collaboration with the Conservation Council, commissioned modeling by EnviroEconomics and Navius Research in 2022 to explore the implications of four net zero scenarios.
- The analysis shows that interties like the Atlantic Loop offer cost and pollution benefits, but that in-province supply is also competitive, and minimizes wealth transfer through imports.
- New Brunswick needs both in-province renewable energy supply and storage, as well as interties to enhance reliability and electricity trade.

SCENARIO MODELING CAN HELP MAP THE PATH FORWARD

- Our modeling experts note two important insights relating to NB risk of being a slow adopter:
 - Storage, coupled with low-cost renewables, reduces electricity system costs in most provinces in the Atlantic region.
 - The greatest benefit is experienced in PEI, where electric batteries could reduce electricity costs by almost 17% in 2050 (from what they otherwise would have been). The benefit is largest in PEI due to the high share of generation from new renewables in that province. New Brunswick doesn't experience this magnitude of benefit because greater adoption of storage in other regions reduces demand for its electricity exports.
 - The renewables with storage scenarios indicate that total system costs can be kept down with an approach that adds more renewables generation and storage starting as soon as possible.

OUR RECOMMENDATIONS

- The Conservation Council recommends that before the EUB makes its determination on the proposed 8.9 percent rate increase that clarification be sought on the:
 - Details behind the planned increase in carbon tax liability for 2023/2024 with a break out of the contributing factors, including from the price increase itself, planned in-province fossil fuel use, and imports and exports.
 - Contribution to reduced overall and peak demand from an aggressive low-to-moderate income household retrofit strategy reaching more than 110,000 households over the next five years.

OUR RECOMMENDATIONS

- Clarification be sought on the:
 - Non-nuclear and nuclear operations of Point Lepreau Generating Station based on actual experience, rather than NB Power capacity factor and outage projections. The analysis should be completed by external experts.
- Finally, we suggest the EUB investigate the operations of [NB Power Energy Marketing Corporation](#) to investigate how participation in clean energy, renewable energy credit markets, and market trading generally, affect the dispatch of NB fossil fuel assets, greenhouse gas emissions, and rates, and the achievement of the renewable energy portfolio standard.

THANK YOU

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