



Sierra Club Canada Foundation: Responding to NS Power's Integrated Resource Plan (Filed Nov 27, 2020)

Sierra Club Canada Foundation

PO Box 2007 STN B

Ottawa, ON

K1P 5W3

Greg Goubko | Clean Energy Campaigner | gregg@sierraclub.ca

Submitted: January 20, 2021

Preface

Beyond Coal Campaign Mandate

The Sierra Club Canada Foundation (SCCF) is a national registered charity that includes four chapters. In December 2020, The Atlantic Chapter launched a “Beyond Coal Atlantic” campaign which seeks to expedite the retirement of fossil fuel and biomass energy generation and replace it with non-emitting energy solutions, such as local renewable generation and storage, efficiency improvements, and through importing clean and developed electricity from neighbouring provinces. In doing so, Atlantic Canada has the opportunity to apply a social lens to the clean-energy transition, such that the inequalities that exist under the current energy regime are addressed. Thus, Atlantic Canada’s energy plan must adhere to principles of a just and inclusive recovery and community wealth building.

Supporting Goals

In addition, SCCF is committed to the following goals:

- Decarbonizing the electric and transportation sectors, reducing oil use by 50 percent by 2030, and achieving 100 percent clean energy in all sectors by 2050;
- Shifting Canadian society in ways that transform economic, racial and environmental inequity in parallel with other movements addressing environmental justice and reconciliation;
- Protecting 30 percent of our natural ecosystems by 2030 and by 2050 raise that to 50 percent so that we may more fully confront the extinction crisis;
- Ensuring all people have opportunities to explore and enjoy nature, inspiring and empowering a new generation of leaders to protect the environment;
- Mobilizing and expanding our member and supporter base to demand climate action and address the extinction crisis.

Sierra Club Canada Foundation has joined with hundreds of organizations in Canada in advocating for a just recovery¹ from the COVID-19 pandemic.

IRP Response Executive Summary

Critique Synopsis

The IRP fails to deliver a useful foundation for which to build an actionable climate strategy, primarily due to inadequate planning and faulty methodology. Thus, the final product is a “roadmap” and “action plan” with a narrow scope that does not, and cannot, integrate with broader and emerging climate solutions. This counterproductive plan was paid for with ratepayer funds and cost countless hours of dedication from a breadth of climate-concerned organizations.

¹ <https://www.sierraclub.ca/en/just-recovery--help-us-build-back-better-after-covid-19>

SCCF believes the entire IRP process is designed to allow NSP to operate on their own climate timelines, while proclaiming that stakeholders informed the plan. Nova Scotia is a national leader in Property Assessed Clean Energy (PACE) financing programs, and NSP missed an opportunity to further advance the clean-tech sector in the province. Instead, the models and scenarios tested depict the least ambitious of all provincial climate plans, thus missing out on the ever growing green boom and its employment and economic opportunities in the clean energy and efficiency sectors. Instead NSP continues to focus on GHG emitting fuels while ignoring the ecological destruction brought about by biomass deforestation and resource extraction.

The IRP puts forth bold unsubstantiated claims as evidence for NSP's energy plans, which points to the need for an independent review, follow-up IRP, and/or audit of this report.

Many of these shortcomings could be addressed through a UARB reform that adds an environmental and health lens to UARB decision-making (i.e. Environmental Justice Advocate) and/or through the establishment of a separate energy planning authority².

SCCF's IRP responses are summarized and grouped below by overarching themes. Excerpts and recommendations are used where appropriate.

2

Responses and Recommendations Summarized

Overarching Theme	IRP Response	Relevance	Recommendations
IRP Presentation	Inadequate presentation	Results in misleading information	Work with key stakeholders (including neighbouring provinces) to co-develop and expedited timelines
IRP Methodology	Weak targets and narrow scope	Weak targets may inform and hinder imminent provincial climate strategies	Work with key stakeholders (including neighbouring provinces) to co-develop and expedited timelines
	Conflict of interest	Results in the continued use of GHG emitting fossil fuels	Produce an amended roadmap and action plan that omits natural gas conversion and instead factors in environmental and health costs which make renewables (i.e. wind) and storage, that expedited the retirement of coal and biogas plants through immediate QC hydro imports
	Account for delays	Puts climate targets at risk	Work with key stakeholders (including neighbouring provinces) to co-develop and expedited timelines
	No social lens	Misses an opportunity to address a widening inequality	Develop a solution that provides subsidized rates for

		gap	those in energy poverty.
	Stakeholder engagement	Results in a subpar consultation process	Work with key stakeholders (including neighbouring provinces) to co-develop and expedited timelines
IRP Economics	Limited variables assessed	Results in the narrow breath of feasible models	Produce an amended roadmap and action plan that omits natural gas conversion and instead factors in environmental and health costs which make renewables (i.e. wind) and storage, that expedited the retirement of coal and biogas plants through immediate QC hydro imports
	Metric limitations	Models externalize health and environmental costs	Produce an amended roadmap and action plan that omits natural gas conversion and instead factors in environmental and health costs which make renewables (i.e. wind) and storage, that expedited the retirement of coal and biogas plants through immediate QC hydro imports
	Premium tariffs and subsidized tariffs	People in energy poverty should not be expected to pay the same energy rates as the wealthy	Develop a solution that forces the wealthy to subsidize rates of those in energy poverty.

	Economies of scale	A consolidated coal retirement plan would reduce costs	Produce an amended roadmap and action plan that omits natural gas conversion and instead factors in environmental and health costs which make renewables (i.e. wind) and storage, that expedited the retirement of coal and biogas plants through immediate QC hydro imports
	Remodelling investor returns	Investment risk should not be placed on ratepayers while I such that generous investor returns threatens rate affordability	Develop a solution that forces the wealthy to subsidize rates of those in energy poverty.
	Stranded assets	Coal plants should not be refurbished into natural gas plants	Produce an amended roadmap and action plan that omits natural gas conversion and instead factors in environmental and health costs which make renewables (i.e. wind) and storage, that expedited the retirement of coal and biogas plants through immediate QC hydro imports
	Wind procurement and storage strategy	A system stability study should include higher wind capacity coupled with storage solutions	Produce an amended roadmap and action plan that omits natural gas conversion and instead factors in environmental and health costs which make
IRP Roadmap and Next-Steps			

			renewables (i.e. wind) and storage, that expedited the retirement of coal and biogas plants through immediate QC hydro imports
Programs to incentivize renewables	Regulatory barriers hinders uptake in renewable development	Develop policy that supports community ownership, with a focus on a just energy transition, community wealth building, and an inclusive recovery	Produce an amended roadmap and action plan that omits natural gas conversion and instead factors in environmental and health costs which make renewables (i.e. wind) and storage, that expedited the retirement of coal and biogas plants through immediate QC hydro imports
Importing from existing Hydro Quebec projects	Coal retirement could occur much earlier than projected	A revitalized program could incentivize renewable development	Work with key stakeholders (including neighbouring provinces) to co-develop and expedited timelines
Cap-and-trade	Silos hinder interprovincial solutions	Work with key stakeholders (including neighbouring provinces) to co-develop and expedited timelines	Work with key stakeholders (including neighbouring provinces) to co-develop and expedited timelines

	Biomass retirement	Biomass is provincially considered a renewable energy source, when in reality it is ecologically destructive and contributes significantly to GHG emissions	Produce an amended roadmap and action plan that omits natural gas conversion and instead factors in environmental and health costs which make renewables (i.e. wind) and storage, that expedited the retirement of coal and biogas plants through immediate QC hydro imports
--	--------------------	---	--

Based on these above table, SCCF recommends the Province, NSP, and the UARB:

- (1) Work with key stakeholders (including neighbouring provinces) to co-develop, revisit, and expedite timelines
- (2) Factor environmental and health costs into modelling scenarios, and produce an amended roadmap and action plan that:
 - (a) Omits coal to natural gas conversion and expedites the retirement of coal and biomass plants through immediate Hydro Quebec imports
 - (b) Increases and expedites renewable capacity and storage solutions
 - (c) Institutes performance-based regulations³
- (3) Develop a social policy that:
 - (a) Subsidizes energy bills for people living in energy poverty (i.e through a wealth tax or an improved cap-and-trade program)
 - (b) Supports a just energy transition, community wealth building and asset ownership, and an inclusive recovery

³ https://www.ecologyaction.ca/files/images-documents/file/Energy/ElectricityAndNSFuture_LoRes.pdf

IRP Responses

IRP Presentation (Inadequate Presentation):

The IRP is scattered with poorly presented and misleading information, buzzwords, and bias. The author(s) should instead take a neutral stance as to what NSP has done historically, without overemphasizing minor achievements.

IRP Methodology (Weak Targets and Narrow Scope): The SDGA and NS's 2030 federal coal-retirement exemption should not be the foundation for a resource plan. SDGA goals have not been spelled out in detail through public consultation and are not proclaimed by force, thus it should not be the basis for establishing modeling targets.

While the IRP does explore a single scenario that retires coal by 2030, more ambitious scenario testing would have allowed for discussions with potential funders to subsidize costs (i.e federal funding). Thus the IRP, as drafted, misses an important opportunity to better assess barriers to an expedited clean-energy transition. As a result, critical climate solutions, such as Distributed Energy Resources (DER) are not incorporated into the IRP action plan. Instead, the IRP includes the repurposing of coal plants for other GHG emitting fossil fuels and the continued use of GHG emitting peaker plants for the foreseeable future. Since we are experiencing a climate crisis, even the worst case scenarios should have only explored DER, Demand Side Management (DSM), and coal plants retirement by 2030 without repurposing them with other environmentally damaging fuels.

We recommend that the IRP framework be constrained by climate science, and require all scenarios under consideration to achieve coal shut down before 2030 (see below: IRP Methodology: Account for delays).

IRP Methodology (Conflict of Interest): Emera owns a 12.55 percent ownership stake in the Maritime & Northeast pipeline, so it's in NSP's best interest to use this infrastructure and delay the retirement of fossil fuels. The

IRP demonstrates a bias towards natural gas retention rather than moving off fossil fuels entirely. Because the analysis and scope of the IRP is technical in nature, NSP could be withholding critical information from stakeholders and the public. How are we to know, for example, that the following statement in the IRP is not disputable? “This analysis determined that sustaining all seven of the existing diesel CTs is the lowest-cost option to meet system capacity requirements.” (page 62). A neutral body should intervene where a clear conflict of interest exists.

IRP Methodology (Account for Delays): Project buffers for delays should be built into scenario planning. Bigger buffers should be assumed to ensure targets are achievable. (i.e. if planning to get off coal by 2030, the IRP should target 2028 to account for potential delays).

IRP Methodology (Social Lens): Resource planning involves both technical and social elements. The IRP misses an important opportunity to address the inequality that exists within the current utility regime. **At minimum, the proposed roadmap should explore a just energy transition, community wealth building, and an inclusive recovery.**

IRP Methodology (Stakeholder Engagement): Despite touting the breadth of stakeholder engagement, the IRP process failed to adhere to best practices and did not incorporate any of the key IAP2 public participation practices and core values set out by the International Association for Public Participation, namely:

1. Public participation is based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.
2. 2: Public participation includes the promise that the public’s contribution will influence the decision.
3. Public participation promotes sustainable decisions by recognising and communicating the needs and interests of all participants, including decision makers.

4. Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.
5. Public participation seeks input from participants in designing how they participate.
6. Public participation provides participants with the information they need to participate in a meaningful way.
7. Public participation communicates to participants how their input affected the decision.⁴

Many organizations, communities, and peoples are affected by IRP decisions, yet key municipalities were not informed of the IRP process. At minimum, the IRP should have identified critical stakeholders, such as trail-blazing municipalities, in early stakeholder engagement planning activities.

Although several comments have redirected the IRP approach, crucial comments are often dismissed as being “not within scope.”

It is unclear if and how NSP reached out to those who are most vulnerable to climate change and energy tariffs, such as people living in energy poverty. And if they were consulted, the IRP does not document their engagement and shows no evidence that their concerns and input were included.

There was no consultation with participants to design the participation process.

Stakeholders were not well informed about how to participate in a meaningful way.

It remains to be seen whether the input of community stakeholders will be thoroughly considered and inform the outcome of the IRP, or whether they will be filed away and simply dismissed.

⁴ <https://iap2.org.au/about-us/about-iap2-australasia/core-values/>

IRP Economics (Limited Variables Assessed): The IRP scope constraints don't allow for plausible variables to be factored in, such as grant funding to subsidize costs pertaining to the early adoption of clean-tech, nor the provincial economic development associated with being first out of the gate re: clean-tech adoption and local procurement. The cost of *not* being prepared to apply funding for climate solutions is also not factored into the assessment.

IRP Economics (Metric Limitations): The price for fossil fuel externalizes the health and environmental costs associated with their use. Prior to commencing the IRP process, a metric to factor in the irreversible cost of climate damage and environmental degradation should have been better assessed. At minimum, the proposed roadmap needs to explore how to factor climate improvements (i.e. reduced healthcare and emergency response expenses) into customer rates.

IRP Economics (Premium Tariffs and Subsidized Tariffs): Premium rates for those who can afford higher energy prices should be explored as a means to subsidize bills for people in energy poverty. Understanding the UARB restricts “discriminatory” rates, a markup in prices is being considered by the utility for the NS Smart Grid project in Amherst. At minimum, a Universal Service⁵ program should be explored as a next step opportunity.

IRP Economics (Economies of Scale): The IRP should assess how all coal can be retired, in one consolidated study, instead of the proposed staggering of coal retirement and decommissioning studies.

IRP Economics (Remodelling Investor Returns): As it stands, investor returns are calculated on assets, thus most influenced by asset management (maintaining and expanding assets). This incentivizes NSP to invest in new capital projects (grow it's asset pool and have ratepayers carry financial risk). The mismatch between profit and risk is perhaps of greater concern than the profit earnings in and of itself. The IRP does not address this dilemma, nor does it provide a clear opportunity to reassess how investor returns are

calculated. As a next step, NSP and the Province should explore instituting a performance-based regulation⁶, whereby returns are tied to the achievement of specific targets (i.e. climate targets).

IRP Economics (Stranded Assets): The IRP should lay out a plan to repurpose coal-plant stranded assets for non-fossil fuel purposes (i.e. geothermal). Can the infrastructure be used for other purposes, and if so, what purpose and at what cost /benefit? Furthermore, depreciation rates need to be reevaluated as a next step as it may financially incentivize the earlier retirement for coal⁷.

IRP Roadmap and Next-Steps (Wind Procurement and Storage Strategy): The IRP should expedite the proposed wind procurement strategy and explore additional wind capacity through the proposed system stability study, as it is an inefficient use of time and resources to reproduce multiple iterations of the study as wind capacity scales. Furthermore, procurement strategies for generation should be accompanied with a broader storage solution strategy.

IRP Roadmap and Next-Steps (Programs to Incentivise Renewables): Although Independent Power Producers (IPPs) are referenced in the IRP, it's impossible to propose IPPs without first understanding the regulatory barriers imposed by existing programs and legislation. In order for there to be a diverse array of deployed renewable technologies, multiple Power Purchase Agreement (PPA) options and/or Virtual Net Metering (VNM) programs should be identified as a critical next-step.

These options must be assessed through a variety of social lenses to ensure the selected programs promote a just and inclusive recovery and community wealth building (i.e. through community ownership).

IRP Roadmap and Next-Steps (Importing From Existing Hydro Quebec Projects): Importing immediately from Hydro Quebec, using existing infrastructure, is not adequately explored. Planning and deployment for a reliability tie and a second 345kV line should occur in parallel with importing

⁶ https://www.ecologyaction.ca/files/images-documents/file/Energy/ElectricityAndNSFuture_LoRes.pdf

⁷ https://www.ecologyaction.ca/files/images-documents/file/Energy/ElectricityAndNSFuture_LoRes.pdf

clean energy from existing Hydro Quebec developments. This would quickly, and significantly, improve our provincial emissions. Furthermore, improved interconnections between provinces should not take just under a decade to deploy. The importing and system stability timelines seem to be exaggerated, and NSP should aim to expedite these interconnections by cutting proposed timelines in half.

IRP Roadmap and Next-Steps (Cap-and-Trade): The provincial cap-and-trade compliance period is set to expire in 2022. NSP needs to take a leadership role in cap-and-trade induced emission reductions. Thus, exploring a revitalized program should be reflected in the IRP Roadmap.

IRP Roadmap and Next-Steps (Regional IRP): The siloed nature of provincial IRPs hinders a plan's ability to explore interprovincial solutions and synergies. As such, NSP should propose to co-develop an IRP with neighbouring provinces (including Quebec) and states, to better analyze restrictions and opportunities, such as a collective power-pool and where demand-flexibility exists to support the energy demand of high-electrification scenarios and electrification strategies.

IRP Roadmap and Next-Steps (Biomass Retirement): A plan to immediately replace biomass plants (Brooklyn Energy Centre and Port Hawkesbury Biomass) with true renewable energy sources should be a high-priority for reasons identified, yet ignored, in the Final Submission to URB Biomass Hearing⁸.

⁸ http://www.blackriver.ns.ca/docs/br_bio.pdf