

# Consideration of engagement input and feedback: phase 1 and phase 2

Consultation and engagement for the Fort Nelson Long-term Resource Plan (FNLTRP) was completed in two phases. The first phase occurred throughout November 2023. BC Hydro solicited input from First Nations, community members and industrial stakeholders on the objectives and direction of the FNLTRP. We heard comments that can be grouped into a number of key common themes, and we sought to incorporate the comments into the draft of the FNLTRP (Draft Plan), where appropriate. We've outlined below how we considered this early input from the Phase 1 Engagement section.

The second phase of engagement occurred in spring 2024. We completed Phase 2 engagement in mid-April after meeting with First Nations, local government, industrial customers and the community. We gathered feedback on the Draft Plan through meetings and a survey. We heard feedback that suggests our Draft Plan was in most areas aligned with the values and priorities of First Nations, industrial stakeholders and the community at large. We've outlined below how we considered the feedback from Phase 2 Engagement.

## HOW WE CONSIDERED THE FEEDBACK FROM PHASE 2 ENGAGEMENT

Summary of Feedback	How is this feedback reflected in our Final Plan?	FNLTRP Section reference
Strong Support for the Draft Plan overall	No change in direction to what was described in the Draft Plan	3.1
Support for the advancement of a geothermal pilot	No change in the direction or pace of action with regards to the geothermal pilot as described in the Draft Plan. Final Plan reiterates that implementation of this action will entail engagement and approval processes involving First Nations and stakeholders for the individual project(s).	6
Support for investigating carbon capture technology, with some skepticism related to the future of this emerging technology	No change in the direction or pace of action with regards to the investigation of carbon capture at Fort Nelson Generating Station as described in the Draft Plan. Final Plan reiterates that implementation of this action will entail engagement and approval processes involving First Nations and stakeholders for the individual projects.	6
Support for monitoring and assessing other resource options, with a range of views expressed supporting and opposition to individual resource options	No change in direction or pace of action with regards to the monitoring and assessment of resource options as described in the Draft Plan. Final Plan re-iterates that a range of potential resource options will be assessed, including hydrogen and run-of-river resources that were not explicitly itemized in the Draft Plan.	5.3.6
Support for the timing of the next long-term resource plan with some concern that the plan won't be able to move fast enough should need arise	No change in the direction or timeline, as described in the Draft Plan. The final FNLTRP re-iterates that re-assessment can occur prior to the next long-term resource plan, should need arise.	6

## HOW WE CONSIDERED THE INPUT FROM PHASE 1 ENGAGEMENT

Key Theme	How this input is reflected in the FNLTRP	FNLTRP Section reference
Support for keeping costs low as a planning objective	BC Hydro plans to prudently invest in the maintenance of existing electrical infrastructure over the planning period to take advantage	2.2.4

	of the relatively low-cost power supply services this infrastructure provides.	
Support for energy security and reliability as fundamental requirements of the FNLTRP	Providing safe and reliable service is foundational to BC Hydro. The FNLTRP considers viable alternatives that can meet the same standard of secure and reliable supply as required on the BC Hydro integrated system.	5.3
Support for considering local economic development	The two Near-Term Actions may provide an opportunity to explore local sources of clean energy, with the potential to provide additional local community and First Nations economic benefits.	6
Preference for geothermal and carbon capture as resource options worth considering	BC Hydro plans to initiate near-term actions focused on the active exploration of geothermal and carbon capture technologies.	6
Interest in transmission interconnection to the BC Hydro integrated system as a resource option	BC Hydro has added a Resource Option that describes transmission and related infrastructure to connect the Fort Nelson grid to the BC Hydro Integrated System.	5.3.5
Concern for climate change, in terms of new aggressive clean energy regulations	BC Hydro plans to explore the range of clean energy alternatives over the next several years and make an informed decision by 2032 on how to decarbonize the Fort Nelson electricity supply.	2.2.4 and 5
Concern for climate change, in terms of wildfire risk	BC Hydro plans to address the threat of wildfires to the reliable operation of the Fort Nelson system through the mitigation and response measures carried out by the asset planning and operations functions within BC Hydro's	2.2.4 and 4.2.1

## DETAILED CONSIDERATION OF PHASE I ENGAGEMENT INPUT

Key Theme – Support for Keeping Costs Low and Local Economic Development as leading planning objectives	How this input is reflected in the FNLTRP	FNLTRP Section reference
Keeping costs low and bringing local opportunities are viewed as top priorities (survey)	<ul style="list-style-type: none"> <li>To support the objective of keeping costs low, the FNLTRP seeks to make the most of existing infrastructure. This means prudently investing in the maintenance and operation of the existing Fort Nelson Generating Station and continuing to take advantage of existing agreements with AESO to provide a cost-effective source of back-up power throughout the planning period, as well as exploring cost-effective means to transition the Fort Nelson Generating Station towards a low- or zero-emission facility as a Near-term Action.</li> <li>To support local economic development, BC Hydro will prioritize exploration and monitoring of local clean energy resources as we seek to make a decision by 2032 on how to decarbonize the supply system to Fort Nelson.</li> </ul>	2.2.4, 3.2.1, and 5
Planning objectives are a good start and seemed reasonable (First Nation)		
Moving towards more green energy as a means towards local economic development (First Nations)		

Key Theme – Energy Security and reliability	How this input is reflected in the FNLTRP	FNLTRP Section reference
With the wildfire challenges of the summer and every indication that they aren't going away, we need to be thinking of our most vulnerable populations, especially with the extreme cold, and now, extreme heat, in the Fort Nelson area (First Nation)	<ul style="list-style-type: none"> <li>BC Hydro acknowledges the reliability impacts that the community has endured due to the 2023 wildfire season. The Fort Nelson system follows the same planning criterion/standard as the integrated system.</li> <li>Beyond the scope of the FNLTRP, there is work planned and/or underway to improve the resilience of the Fort Nelson</li> </ul>	2.2.4 and 4.2.1

<p>Raised concern about those communities not as close into town, such as Prophet River, where, if an outage occurs in the winter, it is much more serious (First Nation)</p>	<p>Generating Station and the transmission line connecting to Alberta. This work is in response to the wildfires of 2023 and includes:</p> <ul style="list-style-type: none"> <li>○ Updating the wildfire contingency plans.</li> <li>○ Maintaining mobile generation connections in the town centre.</li> <li>○ Maintaining an adequate supply of replacement and maintenance parts available at the Fort Nelson Generating Station.</li> <li>○ Having cleared vegetation along the right of way of the transmission line (1L359) that runs from Rainbow Lake (Alberta) to Fort Nelson from the Fort Nelson River to the Alberta border.</li> <li>○ Installing fire protection wrap on roughly 1000 structures and over 90% of the line, with further fire wrapping planned for Spring 2024.</li> </ul>	
<p>Additional comments about the impacts of climate change in the short term – the threat of forest fire and infrastructure were top of mind (Public)</p>		

<p><b>Key Theme – Varying preferences and outlooks on different resource options</b></p>	<p><b>How this input is reflected in the FNLTRP</b></p>	<p><b>FNLTRP Section reference</b></p>
<p>Geothermal could be a really good option and is worth looking at. Acknowledged there are really good options in the area. (First Nation)</p>	<ul style="list-style-type: none"> <li>○ Geothermal resources are the preferred future resource among the First Nations and stakeholders due to the dependable generation profile, local economic benefits, and potential to serve the full community load. Geothermal technologies are mature and reliable in several jurisdictions outside of Canada, and are rapidly evolving within Canada. The application of these technologies in the Fort Nelson region has a number of important uncertainties. The FNLTRP included a Near-term Action to better understand and minimize these uncertainties by advancing a geothermal pilot project.</li> </ul>	<p>5.3.1 and 6</p>
<p>Geothermal is a direct replacement for gas with following advantages: smaller footprint, power generation on reserve, tax free, full band ownership, could have centralized heat and power for the Nation, etc.. Local companies that have the expertise and it can be non-intermittent power. (First Nation)</p>		
<p>Participants thought geothermal and biomass had the best potential. (First Nation)</p>		
<p>Geothermal appears to have good potential but we won't know for a few more years. If it's scalable, then it's a good option. (Public)</p>		
<p>Geothermal, Carbon Capture and Renewable Fuels ranked as top three preferences. (Survey)</p>	<ul style="list-style-type: none"> <li>○ Carbon Capture is generally the second most preferred resource option among First Nations and stakeholders. Unlike geothermal resources, the technologies that underpin carbon capture at a Combined Cycle Gas Turbine facility such as the Fort Nelson Generating Station are still rapidly evolving within an immature market. The uncertainties of this resource option include a generally uncertain future trajectory of carbon</li> </ul>	<p>5.3.2 and 6</p>
<p>Carbon capture and sequestration, and geothermal were interesting options and worth pursuing. (Industry and Public)</p>		

<p>Carbon capture and utilization (rather than sequestration), and geothermal were both interesting options. (First Nation)</p>	<p>capture technologies and regional markets for carbon sequestration or utilization. BC Hydro has included a Near-term Action in the FNLTRP to explore these uncertainties, specifically as it related to the inclusion of future-oriented carbon capture technologies at the Fort Nelson Generating Station. The FNLTRP also includes an engagement with regional parties interested in shared carbon capture and sequestration infrastructure in the region, as well as a monitoring of the maturation of the carbon capture and utilization market.</p>	
<p>With carbon capture and sequestration, participants didn't feel confident in the science to make it safe. Acknowledged a concern that the risks could have catastrophic consequences.</p> <p>Did acknowledge that carbon utilization might be a better option. Rather than sequestration, BC Hydro should explore more carbon utilization. (First Nation)</p>		
<p>Carbon capture and sequestration might make sense with the gas plant and the generating station so close together. Producers are really interested in this technology due to the high carbon % in the area. (Public)</p>		
<p>The region shows a lot of promise for carbon sequestration due to the spaces created from the oil and gas industry and the saline aquifer already in existence. (Industry)</p>		
<p>Participants outlined a small solar project they are installing in the community (school) and raised that the wind has been much stronger than in past years. Therefore, with changing climate patterns, wind might be more viable in future. (First Nation)</p>	<ul style="list-style-type: none"> <li>○ Wind, solar, batteries and biomass resources are not currently seen as preferred future supply options in Fort Nelson due to the current outlook on the cost and performance of local resources.</li> <li>○ However, BC Hydro's plan will include monitoring of the potential developments in this area.</li> </ul>	<p>5.3.6 and 6</p>
<p>Acknowledged that on the eastern slopes there is lots of wind, but it's nowhere near the grid and the locations aren't convenient. (First Nation)</p>		
<p>Storage should be separately considered - every grid should have a certain amount built into it, especially as we have more renewables. This could provide more opportunity for distributed generation. (First Nation)</p>		
<p>Biomass wouldn't be using the green fibre; it would be all waste due to the types of stands in the area. Plus there is now 11,000 square kilometres of burnt timber that will need to be dealt with. (Public)</p>		<p>5.3.4</p>

Expressed that smaller-sized units should be a last resort. They have no incremental benefit to the community (Public)	<ul style="list-style-type: none"> <li>BC Hydro will not actively explore this option, though their advancement will be informed by our monitoring and investigations of other options prior to the next FNLTRP.</li> </ul>	5.3.7
With the transmission line, the question was raised about whether we could bring power from B.C.'s integrated system through the transmission in Alberta and into Fort Nelson, so that it would be considered clean and renewable. (Public)	<ul style="list-style-type: none"> <li>BC Hydro has added a potential resource option for consideration that would see transmission connection from the existing BC Hydro Peace Regional system to the Fort Nelson system. Developments in the North Montney region will be monitored for implications on the cost and complexity of completing a transmission line to Fort Nelson.</li> </ul>	5.3.5
Interested in more information about how to tie into the north end of the Montney region and if transmission through Fort Nelson might be more economical. (First Nation and Public)		

Other input	How this input is reflected in the FNLTRP	FNLTRP Section reference
General interest in advancing renewable power projects and that they'd be interested in learning about how the grid could take this power if they produced it. (First Nation)	<ul style="list-style-type: none"> <li>The Draft Plan concluded that additional energy resources are not required to meet load over the planning horizon.</li> </ul>	4 and 5
Participants expressed interest in how the non-integrated or non-services areas are being included in the long-term resource planning process. (First Nation)	<ul style="list-style-type: none"> <li>Expanding the service area of the Fort Nelson system is beyond the scope of this plan.</li> </ul>	2.1 and 4.1.2
If LNG in the Northwest takes off, then economic activity could return to Fort Nelson and that this is something BC Hydro should be considering in the long-term. (First Nation)	<ul style="list-style-type: none"> <li>As part of ongoing BC Hydro planning processes, the load forecast for the Fort Nelson region will be periodically updated to account for changes in the prospects of new loads.</li> <li>We will continue to assess and monitor electrification activity in the broader oil and gas sector in the region, including the North Montney region.</li> </ul>	4.1.2
Raised that issues with economic development are very much tied to the rail line and if this issue is resolved, development could be much more likely. (First Nation)		4
There are many opportunities that are being pursued including: potential increase in the oil and gas industry, especially with LNG, that could put the Fort Nelson oil and gas fields back on the map; a pellet mill could increase demand significantly, and there are potential mines doing exploratory work that could be reactivated where ore might be brought to		4

Fort Nelson to be shipped out by rail. (Public)		
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