

Clean Power 2040

Powering the future



2021 Integrated Resource Plan

Columbia Basin Regional Advisory Committee

January 21, 2021



Presentation Outline

- Welcome and introductions
- Overview of the Integrated Resource Plan (IRP)
- Planning topics
- Regional considerations
- Next steps

Overview of the Integrated Resource Plan (IRP)

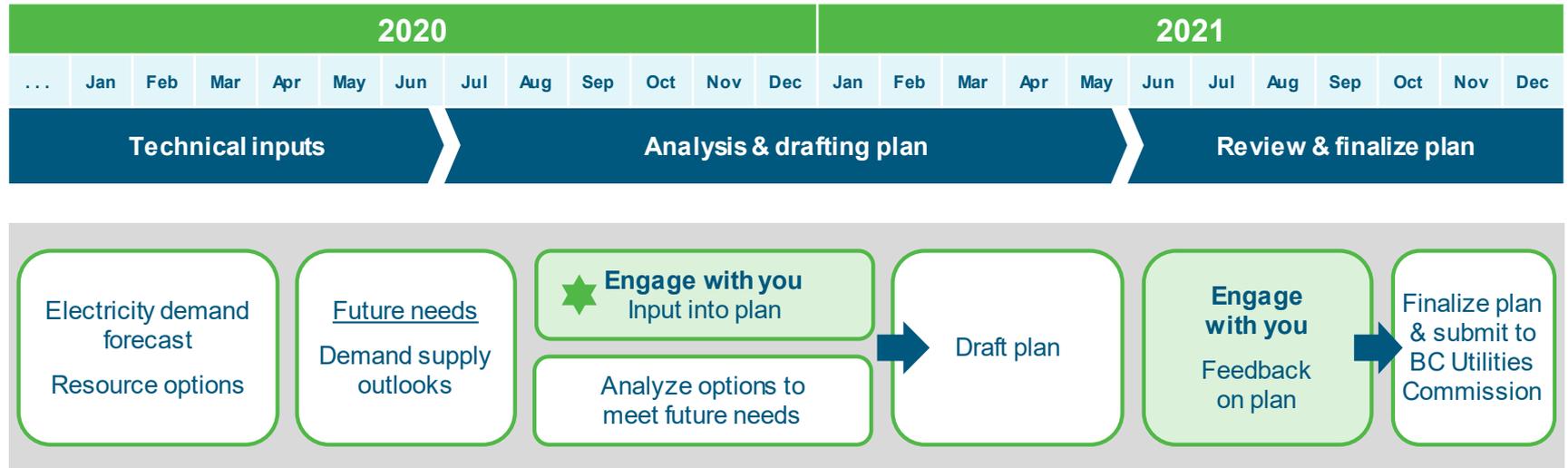
What is an Integrated Resource Plan?

The actions BC Hydro needs to make to meet our customers' future need for electricity

- BC Hydro's plan for the integrated power system
- Addresses any gap between forecast electricity demand and BC Hydro's supply
- Relies on scenarios to address the many uncertainties
- Guided by Provincial legislation and policy, such as the Clean Energy Act and CleanBC Plan
- Involves public, Indigenous, and technical consultation throughout
- Will be submitted to the BC Utilities Commission

Where are we in the schedule?

In this phase of consultation we want to hear what matters to people



Planning objectives

Providing clean, reliable power are key priorities. As we plan, we look at the lowest cost options to meet new demand, and we also consider other objectives:



- Keep costs down for customers



- Limit land and water impacts
- Reduce greenhouse gas emissions through clean electricity



- Support reconciliation with Indigenous people



- Support the growth of B.C.'s economy

Two important terms to know

Energy

The amount of electricity we produce and consume throughout the year.

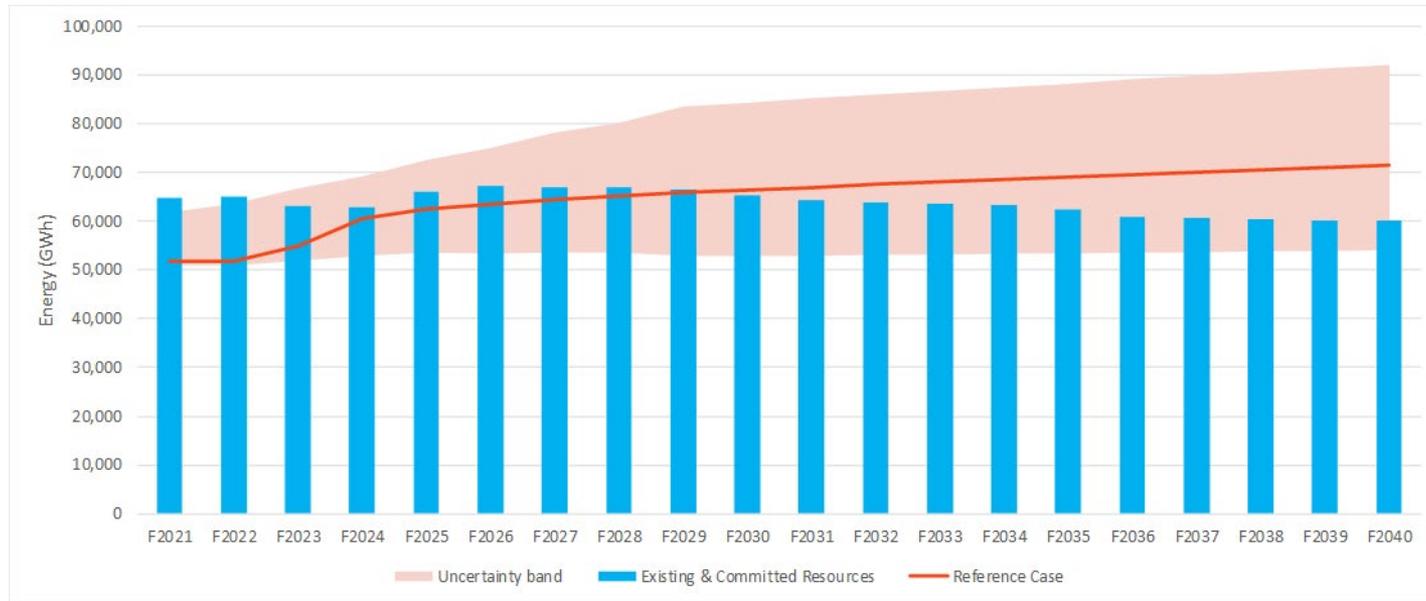


Capacity

The maximum amount of electricity that can be provided at any moment. Also known as “**peak demand**” from a customer electricity use perspective.

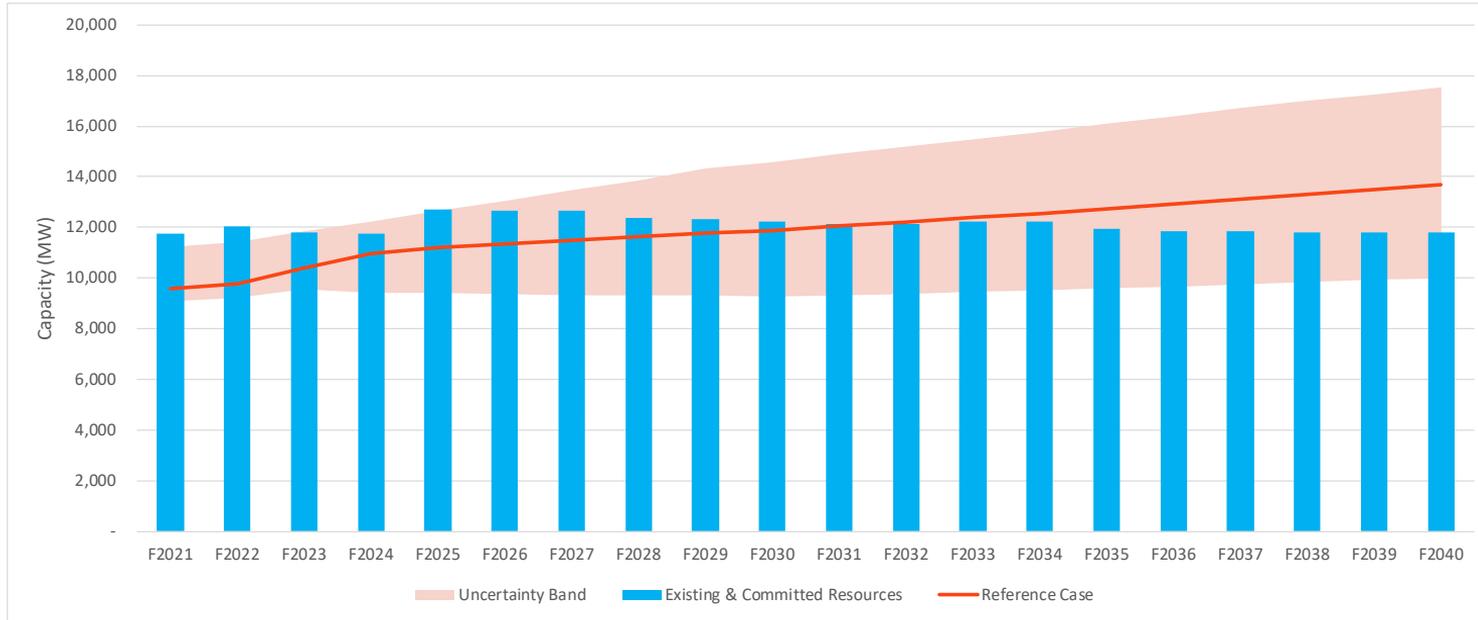
Energy 20-year outlook of supply and demand

We expect to have enough resources to meet B.C.'s energy needs for about 10 years



Capacity 20-year outlook of supply and demand

We expect to have sufficient capacity resources for about 10 years



Planning topics

2020 to 2030: Managing current resources

While we may have enough electricity, there are still choices to make

Conservation and energy management (energy and capacity)

Consider whether to maintain our current level of energy programs, and/or advance new capacity programs

Expiring electricity purchase agreements

Develop an approach for renewals while we have a enough energy and capacity

Small BC Hydro facilities reaching end-of-life

Establish principles when considering refurbishment, decommissioning, or divesting

2030 to 2040: Getting ready to explore new resources

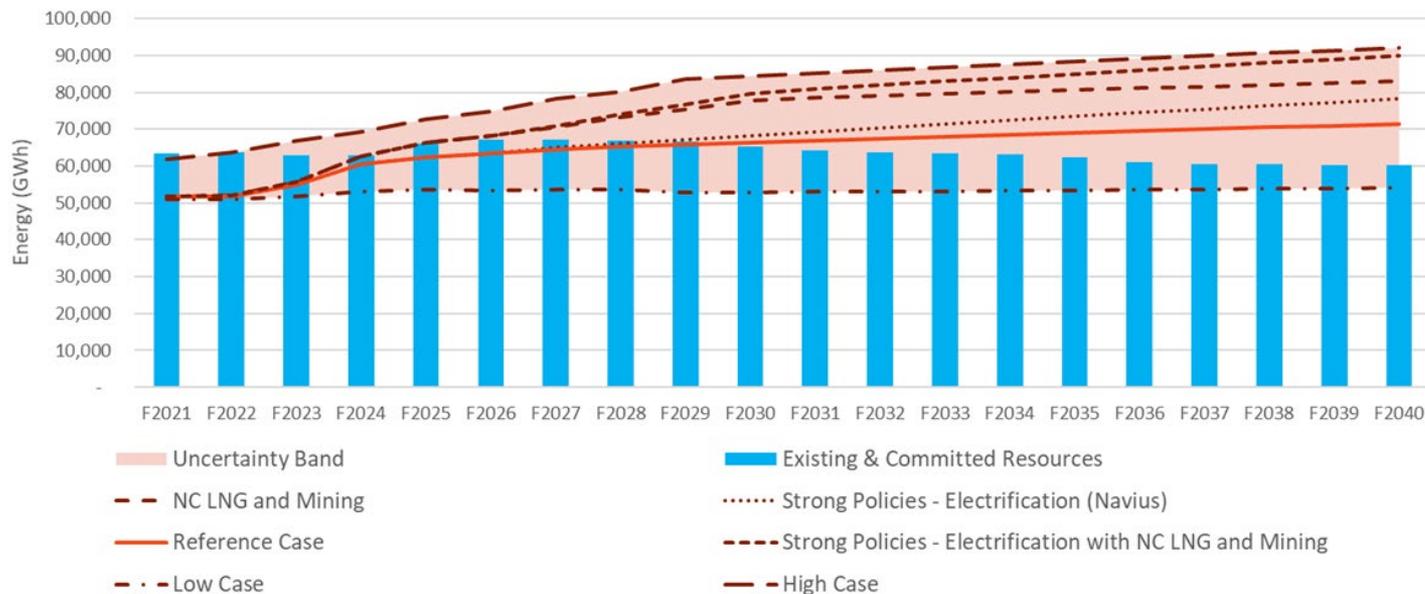
We're looking at ways to address future capacity needs



	Greater conservation and customer involvement	New or renewed local power sources	Upgrades to existing BC Hydro system
Capacity	<ul style="list-style-type: none"> • Demand response • Time varying rates 	<ul style="list-style-type: none"> • Utility scale batteries • Pumped storage 	<ul style="list-style-type: none"> • Revelstoke Unit 6 • Transmission upgrades
Energy	<ul style="list-style-type: none"> • Expanded energy efficiency programs • Customer generation 	<ul style="list-style-type: none"> • Local renewable e.g. wind and solar • Could be EPA renewals and/or new EPAs 	<ul style="list-style-type: none"> • Renewable from most cost effective sources e.g. wind and solar • Could be EPA renewals and/or new EPAs

Planning for uncertainty – Scenarios

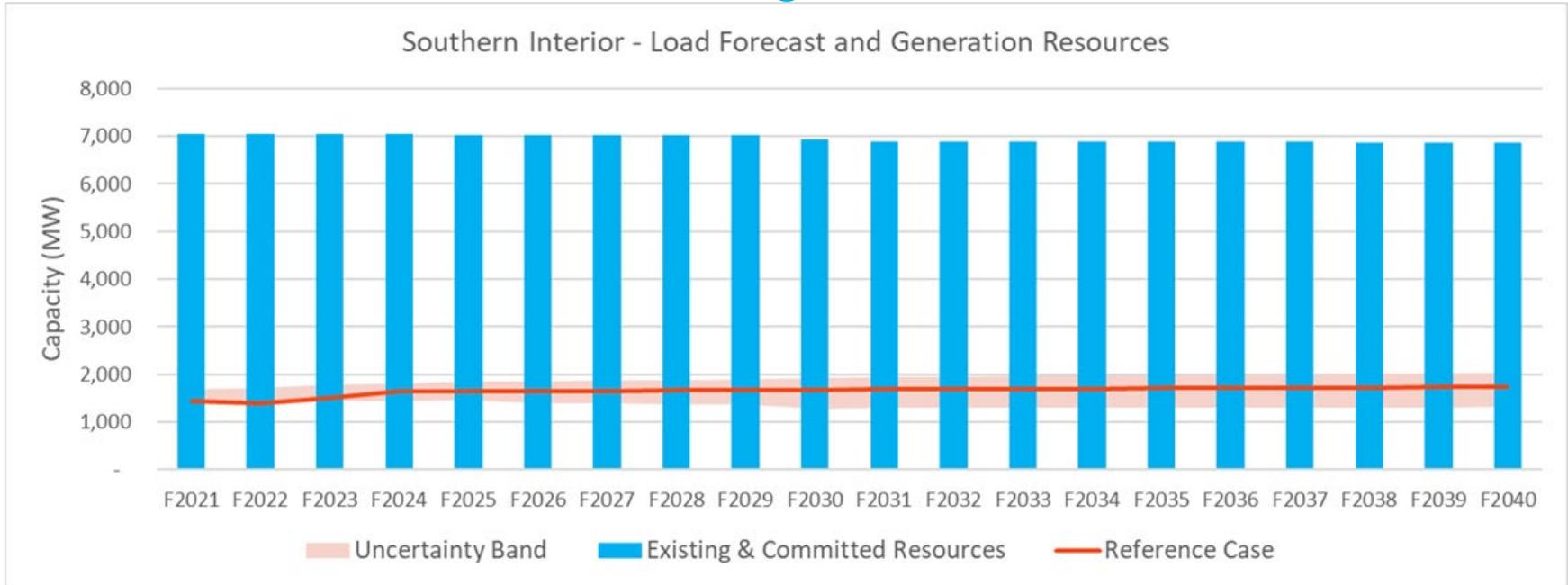
The Plan considers uncertainty when comparing our options



Regional considerations

Southern Interior supply demand outlook

Generation far exceeds load in the region



Thank you for participating

We ask for your comments for this phase of consultation by January 31, 2021

Go to bchydro.com/CleanPower2040

- Provide input through our online survey
- Contact us at cp2040@bchydro.com



BC Hydro

Power smart