

During the Engagement Sessions



- BC Hydro shared information and responses to participant questions should be considered preliminary in nature and subject to change without notice;
- Accordingly, any discussion and shared information is not to be relied upon by participants as any representation, warranty, or covenant from BC Hydro.
- We asked participants to acknowledge these conditions in accepting an invitation to participate.

Planning for a Call for Power

First Nations and IPP Workshops

October 12, October 17, and October 19

Today's Agenda

Item	Speaker
Welcome	Frank Lin
Approach to today's workshop	Monique Stevenson
First Nations Participation Models	Dina Matterson
Draft Eligibility Requirements	Chris Revell
Coffee Break	
Specimen EPA Draft Key Terms	Alan Tan
RFP Draft Key Terms	Greg Schabas and Bruce Chow
Interconnections	Sachie Morii
Wrap up and Next Steps	Monique Stevenson

Today's Goals

1. Provide information on the key elements of the Request for Proposal (RFP) and Electricity Purchase Agreement (EPA) drafted to date
2. Answer questions
3. Encourage feedback on these elements at this session and through our on-line questionnaire which will be open until October 25, 2023

How your input will be used

- In drafting the final RFP and EPA, we will need to consider and balance, the feedback received as well as our customer interests, system needs, our policy framework and regulatory requirements.
- BC Hydro will report on the input received from the engagement sessions and from the questionnaire
- The Phase 1 engagement report is available on our website

What we're looking for



Energy profile aligned with our needs: approximately 3,000 GWh/year



Connect to BC Hydro's **existing system**



Cost-effective energy



Reliable delivery: starting as early as 2028

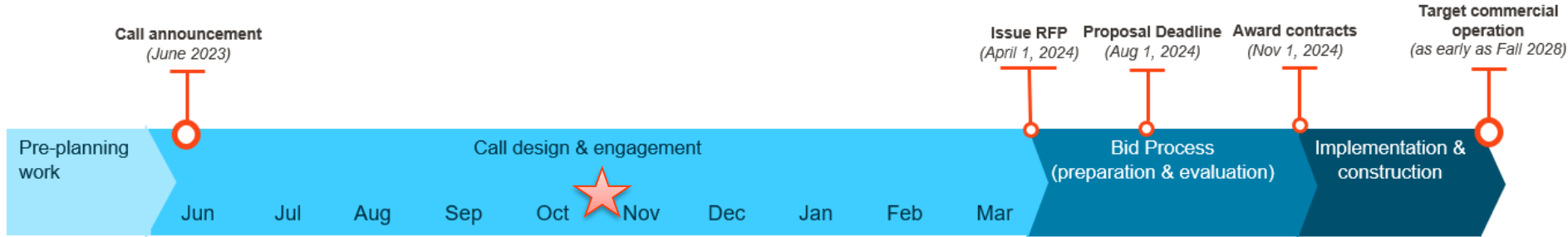


Larger clean or renewable projects



First Nations partnerships and collaboration

Engagement to Date



Phase 1 engagement
Information Sessions
First Nations Discussions
Industry focus group sessions

Phase 2 engagement
Sep: First Nations Workshops
Oct 12, 17 & 19: Engagement workshops on draft terms and call processes
Nov 28, 29 & 30: Engagement workshops on the draft EPA term sheet and call processes
Jan: Release specimen EPA and RFP drafts for comment

Engagement Schedule

October Package #A for input:

1. Options for First Nations Economic Participation
2. Draft Eligibility Requirements
3. Specimen Electricity Purchase Agreement Draft Key Terms
4. Request for Proposals Draft Key Terms and Commercial Evaluation Adjustors
5. Interconnection Requirements

Engagement Schedule

November Package #B for input:

1. First Nations economic participation model
2. Draft Term Sheet for the Specimen Electricity Purchase Agreement
3. Request for Proposals Draft Key Terms
4. Transmission system information

Engagement Schedule

October Package #A input

November Package #B input



January 2024: final draft of the following issued for comment
Request for Proposals and
Specimen Electricity Purchase
Agreement

First Nations Economic Participation Models

Dina Matterson



Feedback from First Nations

Prior to the September workshops, First Nations shared a wide spectrum of views on participation models at 1:1 meetings with BC Hydro:

- Some Nations expressed strong support for a model that maximizes the freedom of Nations to choose what benefits they receive
- Some Nations expressed strong support for a model that only requires equity ownership

The preferences expressed by First Nations at 1:1 meetings informed the 3 models that BC Hydro chose to present at the workshops.

How will the model work?

Typically, participation models follow one of two approaches:

- Eligibility Criteria
 - Scored as pass-fail
 - Often, but not always, applied at the very beginning of the evaluation life cycle
- Evaluation Criteria
 - Scored according to a predetermined set of criteria
 - Most often applied during the proposal evaluation stage

Participation Model 1: First Nations Designated Proposal

First Nations Designated Proposal

To participate in the Call, a proposal must have some level of endorsement from First Nation(s) impacted by the proposed project

Key Considerations:

- **Allows the developer and First Nations to develop their own participation agreement**
- **Nations are free to endorse as many proposals as they wish**
- **Proven by way of a letter of endorsement**

Participation Model 2: First Nations Economic Benefits Package

First Nations Economic Benefits Package

Proposals are given credit based on an assessment of the economic benefits that will accrue to First Nations during the entire life cycle of the project

Key Considerations:

- **Specific categories of benefits (e.g., resource royalty payments, jobs and training, community contributions) are prioritized and given credit during the evaluation process**
- **Proven by way of commercial agreements between developer and participating First Nations**
- **May require an evaluation methodology**

Participation Model 3: First Nations Equity Ownership

First Nations Equity Ownership

To participate in the Call, a proposal must demonstrate a percentage of First Nations ownership

Key Considerations:

- **Restricted to one form of economic participation/benefit: ownership of the company submitting the proposal**
- **Ownership can be held by one First Nation or a consortium of Nations**
- **Proven by way of an organizational chart and an ownership agreement**

First Nations feedback from workshops

Nearly 75 participants representing more than 50 First Nations participated

A wide range of views were shared in support of and against each of the three models presented at the workshops. That said, a general consensus arose among participants that supported:

- A model that includes both an eligibility and evaluation criteria
- A First Nations equity requirement (so long as reliable access to “good” capital exists)
- A model that does not force First Nations to compete against each other but rather incentivizes collaboration (e.g. consortiums).

Open Discussion and Questions

Draft Eligibility Requirements

Chris Revell

Feedback on Project Eligibility to Date

- Projects will be excluded if the minimum size is set too high
- Projects may not be able to meet a 2028 COD due to permitting and procurement timelines
- Proponents want to know where our transmission system is constrained so they know where to site projects

Eligible Project Size

30-50 MW minimum up to 200 MW maximum

Seeking input on where to set the minimum between 30 MW to 50 MW.

- Economies of scale
- Efficiencies with respect to studying, connecting, and administering a smaller number of larger projects.

Projects larger than 200 MW will increase attrition risk to BC Hydro, if they fail to reach commercial operations.

Target Commercial Operations Date

Proponents will propose a guaranteed COD date between Fall 2028 and Fall 2031 for their project

A three-year window for projects to come online strikes a balance of meeting anticipated need and enabling more projects to bid into the call.

- 4 – 7 years to finalize permitting, procurement and construction once EPAs are awarded.

Project Location

Projects must be in B.C. and be able to deliver energy to the BC Hydro integrated system

Due to the timelines of this call, BC Hydro is seeking projects that will have modest upgrades required to the BC Hydro transmission system.

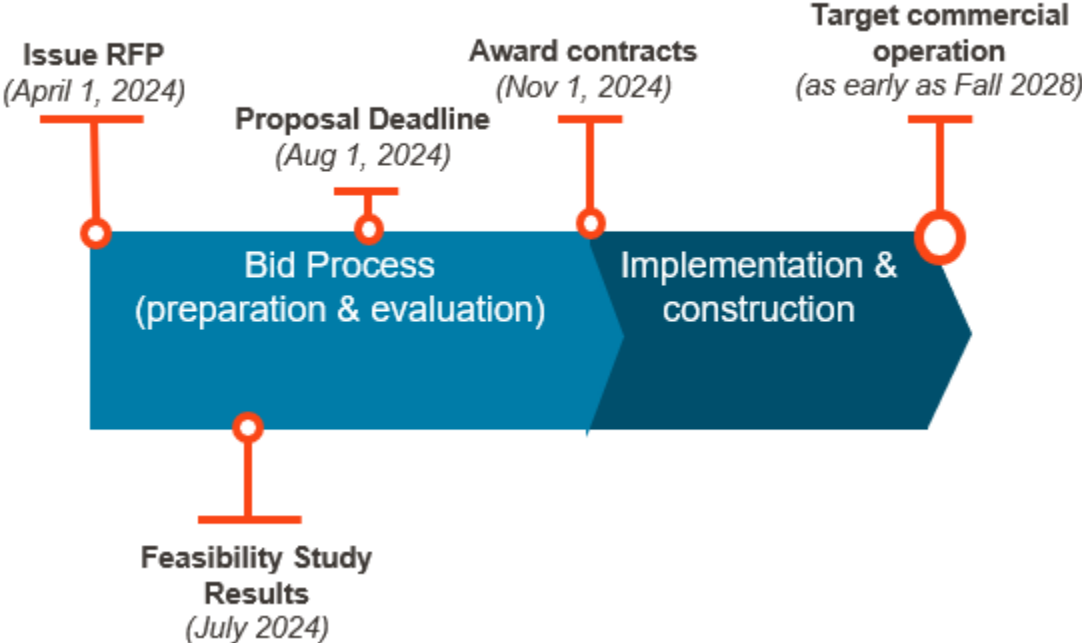
- Projects that require major upgrades may not be as cost-effective and will have longer project lead times.
- Will release system information to help proponents make decisions on siting potential projects and interconnecting to our system in November.
- Proponents in FortisBC's area should contact them to initiate an interconnection request.

Eligible Resource Types

We will only accept proposals from

- Clean or renewable resources
- New greenfield projects and expansions of existing projects
- Load displacement is not permitted
- Must be proven technologies

Request for Proposals proposed schedule



Open Discussion and Questions

Specimen EPA Draft Key Terms

Alan Tan

Feedback to date

- BC Hydro's Electricity Purchase Agreements continue to be financeable
- With increasing interest rates and supply chain issues, developers seeking mechanisms to share price risk prior to construction
- Developers expressed interest in a simpler contract:
 - Previous contracts with 3x12 table and ratchet clause too complex
 - One specimen EPA to cover all types of resources was challenging

EPA Term	Description
Contract Term	<ul style="list-style-type: none"> • 25 years commencing on COD
Contract Price	<ul style="list-style-type: none"> • Fixed energy price in \$/MWh, subject to: <ul style="list-style-type: none"> • Pre-COD escalation at 100% of BC Consumer Price Index (CPI) (up to guaranteed COD) • Post-COD escalation of 25% of BC CPI (annual) • Time of Delivery factor
Exclusivity	Project will not sell or deliver any energy to any other person

EPA Term	Description
Environmental Attributes	<ul style="list-style-type: none"> • All environmental attributes are transferred to BC Hydro
Early COD Incentives and Late COD Liquidated Damages	<ul style="list-style-type: none"> • Incentives if COD is achieved between Fall 2028 and Fall 2030 • Liquidated damages for projects that are late in achieving guaranteed COD
Liquidated Damages	<ul style="list-style-type: none"> • No liquidated damages for non-delivery of energy • If a project provides capacity, liquidated damages will be payable for delivery shortfalls on capacity commitments

EPA Term	Description
Deemed Energy (Turn-Down Period and BC Hydro System Constraint)	<ul style="list-style-type: none"> • BC Hydro has right to turn down all or portion of the project's generation • BC Hydro will pay for energy that could have been generated and delivered to the POI but for: <ul style="list-style-type: none"> • a turn-down request, net of avoided costs • a BC Hydro system constraint, only after the first 72 hours of a continuous BC Hydro system constraint and net of avoided costs
Termination Payment	<ul style="list-style-type: none"> • Mutual termination payments for either party's default

Open Discussion and Questions

RFP Draft Key Terms

Greg Schabas

Important Features of Draft Request For Proposal (RFP) Package

- We are considering a Proponent Registration Process before Proposal Submission
- RFP Package will include around 3 – 5 supporting Forms to be completed by Proponents as part of Proposal Submission
 - (e.g. Registration Form, Commercial Proposal Form, Project Information Form)
- Project Eligibility Requirements and Evaluation Process will be defined in RFP Package
- RFP Package will include a Specimen EPA defining contract terms and conditions
- There will be a submission fee and bid security

RFP Draft Fees and Securities

#	Item	Details/Description
1.	Registration Fee	<p>Payment required at registration deadline</p> <p>Amount to be determined</p> <p>One Payment per Proponent</p>
2.	Proposal Fee	<p>Payment required at Proposal Submission Deadline</p> <p>Proposed amount is \$13,000 per Proposal Submission</p>
3.	Bid Security	<p>Bid Security will be required as part of Proposal submission as Letter of Credit</p> <ul style="list-style-type: none"> Helps ensure that only quality Proposals are received <p>Proposed amount is \$25,000 to \$40,000 per MW of Project Capacity</p> <ul style="list-style-type: none"> Amount in recent Canadian calls has ranged from \$25,000 - \$40,000 per MW for utility-scale projects
4.	Performance Security	<p>Performance Security required at EPA signing</p> <p>Bid Security rolled into Performance Security for Preferred Proponents</p> <p>Amount is to be determined</p>

Commercial Evaluation Adjustors

Bruce Chow

Commercial Evaluation Adjustors

Overall approach to bid submission evaluation still under development, and subject to further input / feedback

- Some of the adjustors we are contemplating:
 - **Capacity credit**
 - **Resource integration costs**
 - **Interconnection costs and transmission losses**
- Other adjustments may be added

Capacity credit

Capacity credits may apply to energy resources that also provide dependable capacity when we need it

- This call for power is focused on acquiring energy. But, we still have an interest in dependable capacity, if a project can offer it
- Some resources can provide dependable capacity (e.g., biomass, geothermal, and storage hydro)
- Capacity credits will not be given to wind, solar or run-of-river projects
- The form and magnitude of the capacity credit is still under development and will consider our long term needs for capacity

Resource integration costs

Resource integration cost of \$2/MWh will be applied for both wind and solar projects

- Resource integration cost recognizes there is additional cost to BC Hydro for integrating resources with generation that is variable / intermittent
 - This cost is a relative cost for differentiating between resource types
- Run-of-river is relatively predictable based on historical records
- Wider fluctuations occur with wind and solar based on the variability of output due to factors such as storms and cloud-cover

Interconnection costs & transmission losses

BC Hydro will factor network upgrade costs and transmission losses into bid evaluation

- Proponents are responsible for costs to get their energy to BC Hydro's integrated system
 - Costs on the proponent's side of the Point of Interconnection are proponent's responsibility
- Network upgrade costs to connect the project to BC Hydro's system
 - Costs on BC Hydro's side of Point of Interconnection are BC Hydro's responsibility
 - Proponent must provide security for full amount of network upgrade costs
- Process for determining loss adjustment still under development
 - BC Hydro to carry out studies to determine magnitude of losses

Example Interconnection Cost Allocation & Evaluation

	BC Hydro to Pay	IPPs to Pay	Bid Evaluation Adjustment
Interconnection Infrastructure Costs			
Interconnection Study Costs		X	
Infrastructure on IPP project side of point of interconnection - If applicable, includes wheeling through and/or interconnection for a transmission asset owned by third-party		X	
Infrastructure on BC Hydro side of point of interconnection (Network Upgrades) - IPPs must provide Network Upgrade security, in accordance with Standard Generation Interconnection Agreement (SGIA)	X	cost of security only	X

Open Discussion and Questions

Interconnections Process

Sachie Morii

Interconnection Requirements

- Projects must be located in B.C. and must connect, or deliver, to BC Hydro's integrated system.
 - Projects not directly connecting to the BC Hydro system are responsible for making their own arrangements to deliver their energy to our system.
 - Projects located in FortisBC territory requires to initiate an interconnection with them before they can submit an interconnection request to BC Hydro
 - Projects connecting to a third party own Transmission asset must obtain an acknowledgement from the owner that they do not have an immediate objection for such a connection
- Minimum to modest network upgrades to the BC Hydro system
 - System information for indicative reference to come in late Nov 2023

Feedback on Interconnections to Date

- Concerns on timelines for the interconnection process
- Proponents and First Nations need to know the areas of the transmission system that are constrained and where new generation can be connected with minimum to modest system upgrades
- It is critical to know interconnection costs before the bids are due

Interconnection Process

CEAP and OATT

- Will follow the same process as past competitive calls to select successful proponents; **the Competitive Electricity Acquisition Process (CEAP)**
- Part of the Open Access Transmission Tariff (OATT)
- Sets out the terms and conditions approved by the B.C. Utilities Commission (BCUC) for BC Hydro's transmission service
- After successful proponents are selected, the rest of interconnection process will follow terms of Standard Generator Interconnection Procedures (SGIP) under OATT
 - CEAP refers to SGIP for details of interconnection studies and implementation terms

CEAP

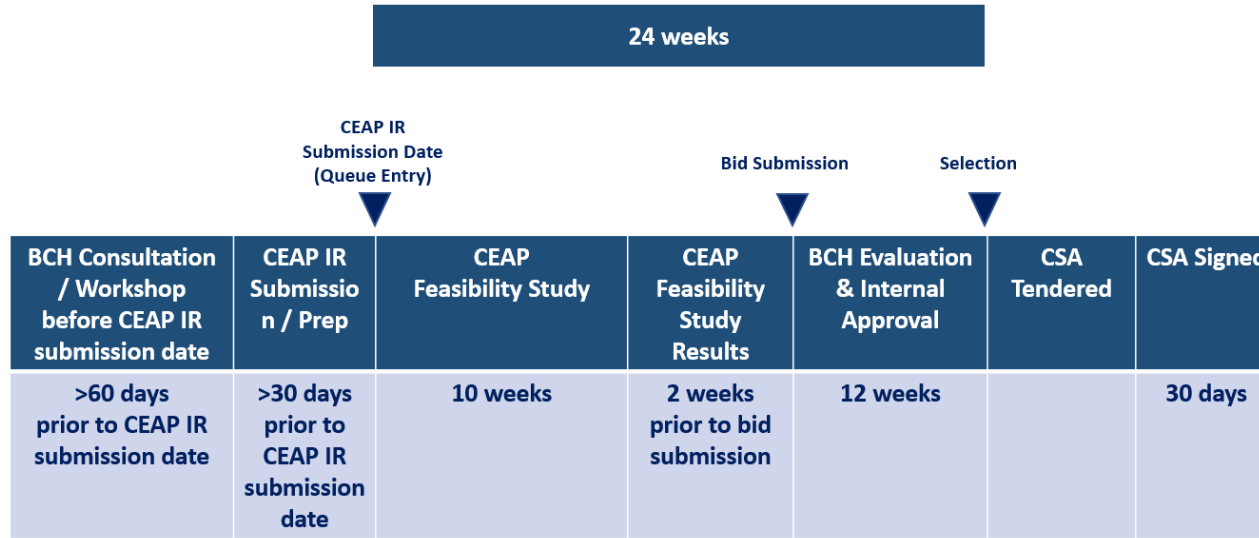
The CEAP prescribes the process for queue allocation and study processes for all submitted projects in the call

- All projects are assigned the same queue position
- All projects required to follow certain processes – steps and timelines are defined in Tariff

The mandatory interconnection study to be conducted prior to the selection of successful proponents is “Feasibility Study”

- Each request will be studied independently to identify what network upgrades each proponent is triggering
- Cost estimate (non-binding good faith estimate) of network upgrades will be provided

Proposed Schedule



CEAP: Competitive Electricity Acquisition Process
IR: Interconnection Request
CSA: Combined Study Agreement
SGIP: Standard Generator Interconnection Procedures



* The process transition to SGIP for System Impact Study, Facilities Study, Implementation



Open Discussion and Questions

Our next steps: hearing from you

June 2023		Call Announcement
Phase 1 engagement	June/July/Aug	1 st Information Sessions First Nations Discussions Industry focus group sessions
Phase 2 engagement	Sep	First Nations Workshops
	Oct 12, 17 & 19	2 nd engagement workshops on draft terms and call processes
	Nov 28, 29 & 30	3 rd engagement workshops on the draft term sheet and call processes
	January	Release specimen EPA and RFP drafts for comment
April 2024		Issue RFP

Submit written comments, feedback and questions on today's material by October 25, 2023 via our online questionnaire on bchydro.com



BC Hydro
Power smart