

BC Hydro 2024 Call for Power October Engagement

Package A: Call Elements and Draft Terms for Feedback

We're engaging over the next several months on our planned approach to acquire approximately 3,000 GWh/year of clean or renewable energy that can be on-line as early as Fall 2028. We're hosting in-person and virtual workshops to gather detailed feedback on the design of a competitive call for power to achieve the objectives below:

- clean or renewable energy that is cost-effective for our ratepayers
- projects that can come on-line as early as Fall 2028
- projects that provide meaningful First Nations participation

In our initial engagement, we sought input on select design elements and our overall approach. In this next phase of engagement, we have been hosting First Nations workshops on options for how First Nations can participate in the Call. We are now engaging with Independent Power Producers (IPPs) and First Nations on some of the draft key terms to be included in a specimen Electricity Purchase Agreement (EPA) and Request for Proposal (RFP) documents throughout October, November, and January.

CONSIDERING YOUR INPUT

The key elements of the Call are being shared as they are developed. We are hosting sessions in October to seek input on our first package of draft Call elements included in this document. We will consider this input along with customer interests, regulatory considerations, and our policy framework as we revise the terms. We will then host sessions in November to seek input on our second package of draft elements. Input from these sessions will inform our specimen Electricity Purchase Agreement (EPA) and Request for Proposal (RFP) documents.

The October sessions and this engagement Package A will focus on the following:

1. Options for First Nations Economic Participation
 - Three illustrative models
2. Draft Eligibility Requirements
 - Project size, target COD, location, and resource types
3. Specimen Electricity Purchase Agreement Draft Key Terms
 - Price, contract term, incentives and liquidated damages, deemed energy, environmental attributes, and termination payments

WORKSHOP DATES

In-person workshop (joint First Nations and IPP)

Thursday, October 12

Virtual workshop (joint First Nations and IPP)

Tuesday, October 17

Virtual workshop (First Nations only)

Thursday, October 19

4. Request for Proposals Draft Key Terms
 - o Proposal fee, bid security, and schedule
 - o Evaluation price adjustors – capacity credit, integration and interconnection costs
5. Interconnection Requirements

The November sessions and a subsequent engagement Package B will focus on:

1. First Nations Economic Participation Model
2. Specimen Electricity Purchase Agreement Draft Term Sheet
3. Request for Proposals Draft Key Terms

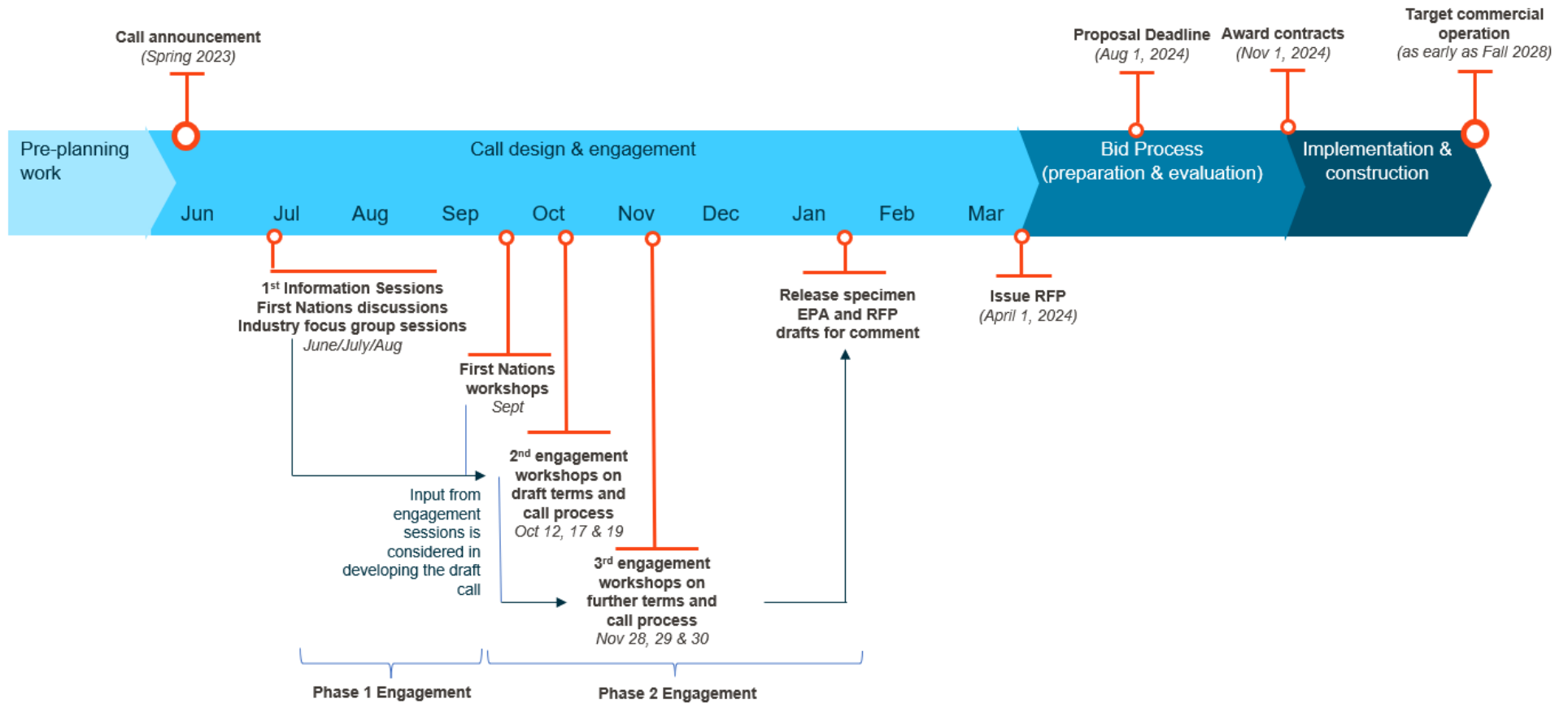
The specimen Electricity Purchase Agreement (EPA) and draft Request for Proposal (RFP) documents will be released for comment in January.

After reading through this guide, please submit your feedback through our on-line questionnaire which will be open from October 12 until October 25, 2023.

[Call for power engagement \(bchydro.com\)](http://bchydro.com)

Key themes from the input received from both the October and upcoming November engagement sessions will be summarized and shared in a report to be available on the website.

TIMELINE



1. OPTIONS FOR FIRST NATIONS ECONOMIC PARTICIPATION

BC Hydro is committed to reconciliation and the principles of the UN Declaration on the Rights of Indigenous Peoples. Through this Call for power, we are requiring First Nations participation on projects. At workshops that took place in September with First Nations, BC Hydro shared three illustrative First Nation participation models to seek feedback and input. Our goal is to settle on a First Nations participation model that advances economic reconciliation with First Nations through meaningful partnerships between First Nations and IPPs. The model must also be able to be implemented in the Call in a clear, consistent, and transparent manner.

The models presented at the workshops were based on feedback provided by Nations at 1:1 meetings. In these conversations:

- Some Nations expressed support for a model that maximizes the flexibility for Nations to define economic benefits how they wish and chose
- Some Nations expressed support for a model that requires equity ownership only
- Some Nations expressed a desire for the commercial arrangements to be left between the Nations and IPPs with minimal oversight of BC Hydro

At the workshops, BC Hydro was presented with a range of further feedback about the 3 illustrative models outlined below:

- Many Nations expressed concerns around their ability to access financing
- Many Nations expressed concerns about the timelines to meet the Fall 2028 in-service date
- Many Nations expressed support for smaller projects to maximize First Nation participation
- Some Nations expressed concerns around capacity in negotiating an agreement with IPPs
- Some Nations raised concerns about the type of documentation that would be required (i.e. they don't want a model that would obligate Nations to hand over sensitive commercial information as part of the proposal), who would be evaluating submissions (i.e. they don't want BC Hydro to act as judge and jury over First Nations interests as part of the evaluation process), and how benefits would be measured and assessed (i.e. they don't want BC Hydro to make subjective assessments about the benefits accruing to First Nations as part of the evaluation process).

The illustrative models shared below are those that were presented to First Nations at the September workshops. By presenting these illustrative models, we are not suggesting these 3 models are the best or the only approaches to First Nations economic participation in the Call for power, and we acknowledge that combinations of the 3 models may also be possible. We are seeking further feedback on these models and would like to know if other types of participation models should be considered. After you have reviewed these models, please fill out our feedback questionnaire to provide your perspective and help inform the proposed model selected.

Model	Description
<p>Participation model 1</p> <p>First Nations designated proposal</p>	<p>To participate in the Call, a proposal must have some level of endorsement from First Nation(s) impacted by the proposed project.</p> <p>This allows the developer and First Nations to develop their own participation agreement. Therefore, Nations are free to endorse as many proposals as they wish. This would be proven by way of a letter of endorsement.</p>
<p>Participation model 2</p> <p>First Nations Economic Benefits Package</p>	<p>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.</p> <p>Specific categories of benefits (e.g., resource royalty payments, jobs and training, community contributions) would be prioritized and given credit during the evaluation process. This would be proven by way of commercial agreements between developer and participating First Nations and may require an evaluation methodology.</p>
<p>Participation model 3</p> <p>First Nations Equity Ownership</p>	<p>To participate in the Call, a proposal must demonstrate a percentage of First Nations ownership.</p> <p>The model is 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 and would be proven by way of an organizational chart and an ownership agreement.</p>
<p>Additional ideas</p>	<p>Are there other models that we should be considering? Please fill out the on-line questionnaire to share your thoughts with us.</p>

2. ELIGIBILITY REQUIREMENTS

Below are draft eligibility requirements, which have taken into consideration input we have received to date. After you have reviewed these terms, please fill out our on-line feedback questionnaire to provide your comments and perspective.

Please note that these terms do not represent an exhaustive list of eligibility requirements. Draft eligibility requirements should be considered preliminary in nature and subject to change without notice. Accordingly, BC Hydro provides no representation or warranty that the draft eligibility requirements will reflect the final eligibility requirements issued in an RFP.

Eligibility Requirement	Description
<p>Eligible Project Size</p> <p>30-50 MW minimum up to 200 MW maximum</p>	<p>We plan to set a minimum project size and we are seeking input on where to set the minimum between 30 MW to 50 MW.</p> <p>Smaller projects won't meet our objectives of maximizing economies of scale or of achieving efficiencies with respect to studying, connecting, and administering a smaller number of larger projects.</p> <p>We plan to set a maximum project size of 200 MW. Projects larger than 200 MW could increase attrition risk to BC Hydro, if they fail to reach commercial operations.</p>
<p>Target Commercial Operations Date (COD)</p> <p>Projects must be capable of achieving a commercial operations date (COD) between Fall 2028 and Fall 2031</p>	<p>Proponents will be required to propose a guaranteed COD 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 addressing project development timeline concerns. In our initial engagement we heard from some First Nations and IPPs that the 2028 COD was too tight due to lengthy permitting and procurement timelines. If a three-year COD window is provided, then projects have about 4–7 years to finalize permitting, procurement and construction once EPAs are awarded.</p> <p>We are also looking at ways to encourage or incent projects to come online as early as Fall 2028, as that is when we will start to see the need for energy begin to materialize.</p>
<p>Project Location</p> <p>Projects must be located in B.C. and be able to deliver energy to the BC Hydro integrated system</p>	<p>Due to the timelines of this Call, BC Hydro is seeking projects that will have modest upgrades required to the BC Hydro transmission system.</p> <p>Typically, projects that require major upgrades to our system will not be as cost-effective and will have longer project lead times. We are currently in the process of preparing information in relation to our system which is intended to help proponents make decisions on siting of potential projects and interconnecting to our existing integrated transmission network. We're still working to prepare this information and expect to share it in late November.</p> <p>Projects that would like to connect via FortisBC's transmission system must initiate an interconnection request with FortisBC first for the project to enter BC Hydro's interconnection process. BC Hydro cannot initiate any interconnection study for its system until a sufficient FortisBC study is completed. Proponents should contact FortisBC for more information.</p> <p>Projects that wish to connect to BC Hydro's Non-Integrated Areas or to the Fort Nelson service area are not eligible for this Call.</p>

Eligibility Requirement	Description
<p>Eligible Resource Types</p> <p>Clean or renewable</p> <p>Using proven technology</p>	<p>Consistent with the Province's Clean Energy Act, we will only accept proposals from clean or renewable resources; no nuclear.</p> <p>We are seeking new (greenfield) projects or expansions of existing projects with the addition of new (greenfield) generators only. In the case of expansion projects, only the expansion would qualify and must be metered separately from the existing project.</p> <p>No load displacement arrangements are permitted. Load displacement projects should take advantage of our existing programs available through your key account manager.</p> <p>Projects must use “proven” generation technologies. “Proven” technologies are generation technologies which are readily available in commercial markets and in commercial use (not demonstration use only), as evidenced by at least 3 generation plants (which need not be owned or operated by the Proponent) generating electricity for a period of not less than 3 years, to a standard of reliability generally required by good utility practice.</p>

3. SPECIMEN ELECTRICITY PURCHASE AGREEMENT DRAFT KEY TERMS

After you have reviewed these draft terms, please fill out our feedback questionnaire to provide your perspective and help inform the specimen EPA. Please note that these terms do not represent an exhaustive list of EPA key terms. Draft key terms should be considered preliminary in nature and subject to change without notice. Accordingly, BC Hydro provides no representation or warranty that the draft key terms will reflect the final EPA terms issued in conjunction with the RFP.

EPA Term	Description
<p>Contract Price</p>	<p>The proponent will propose a fixed energy price in \$/MWh, subject to pre-COD escalation at 100% of Consumer Price Index (CPI) (up to guaranteed COD) and post-COD annual escalation of 25% of BC CPI.</p> <p>In our previous engagement we heard from developers that BC Hydro should share in some of the price risk prior to construction. As a result, we are proposing a price escalation of 100% of CPI prior to the guaranteed COD date.</p> <p>The contract pricing structure will include a time of delivery factor table to adjust the energy price based on the time that energy is delivered. The time of delivery factor table will be designed to reflect the relative value of energy to BC Hydro at different times of the year or different times of the day. In general, the value of the energy is aligned with the times during which our customers need energy the most. For example, energy has a higher value in winter months and a lower value in spring months during the freshet period. In addition, energy has a higher value during heavy load hours (e.g., business hours) versus low load hours (e.g., night) within each day.</p> <p>The time of delivery factor approach is a similar approach to that used in our recent procurement processes, such as the EPA Renewal Program.</p>

EPA Term	Description
Contract Term	<p>We are considering a standard contract term of 25 years for all projects awarded EPAs.</p> <p>In our initial engagement, we heard that contract terms longer than 20 years are easier to finance and bring down financing costs for developers, which should result in lower prices for BC Hydro and its customers. A 25-year term is also consistent with the contract terms in other jurisdictions.</p>
Exclusivity	<p>Because BC Hydro needs to manage all the energy on our system to meet customer demand, BC Hydro requires that the project will not sell or deliver any energy to any other person other than BC Hydro.</p>
Environmental Attributes	<p>Our approach to EPAs has been to retain all the Environmental Attributes associated with clean or renewable energy deliveries under each awarded EPA. The value of the Environmental Attributes is included in the energy price and there is no additional payment made to the proponent for the Environmental Attributes.</p>
Early COD Incentives and Late COD Liquidated Damages	<p>To encourage deliveries from projects to align with our projected timing for the need for energy from new resources, we are considering incentives for projects that reach commercial operations between Fall 2028 and the earlier of the project's guaranteed COD and Fall 2030. The magnitude and structure of the incentives are still under consideration, and we are seeking your input.</p> <p>To ensure we can rely on projects coming online by their guaranteed COD, liquidated damages will apply for late COD's.</p>
Liquidated Damages	<p>Generally, once operational there won't be liquidated damages for non-delivery of energy by projects.</p> <p>However, if a project commits to providing dependable capacity within its EPA and fails to meet that commitment, liquidated damages would be payable to BC Hydro.</p>
Deemed Energy (Turn-Down Period and BC Hydro System Constraint)	<p>BC Hydro can curtail generation by any project and will pay for the energy that could have been generated (net of avoided costs). If curtailment is due to a BC Hydro system constraint, payment is only after the first 72 hours of a continuous BC Hydro system constraint.</p> <p>Curtailment provisions allow BC Hydro to manage water (spill) and minimize forced exports at low or negative prices. Proponents will be paid deemed energy depending on the circumstances of the curtailment.</p>
Termination Payment	<p>In alignment with BC Hydro's standard approach in other Electricity Purchase Agreements, the EPA will include mutual termination payments in the event of the other party's default.</p>

4. REQUEST FOR PROPOSAL DRAFT KEY TERMS

Please note that these terms do not represent an exhaustive list of RFP key terms. Draft key terms should be considered preliminary in nature and subject to change without notice. Accordingly, BC Hydro provides no representation or warranty that the draft key terms will reflect the final RFP terms when issued.

Commercial Term	Description
Proposal Fee	\$13,000 per proposal to cover BC Hydro's cost for review of the proposal.
Bid Security	<p>\$25,000-40,000 per MW of plant capacity, submitted by each proponent at the time a bid is submitted in the RFP. If a proponent is awarded and executes an EPA consistent with the Specimen EPA within a specified period of time, the proponent's bid security is applied to the performance security under the EPA. If a proponent is awarded an EPA and does not execute the EPA within the specified period of time, the proponent forfeits its bid security. Proponents that are not awarded an EPA in the RFP, will have their bid security returned.</p> <p>In developing our approach to bid security, we considered the input received during our engagement sessions, and reviewed the approaches used in similar calls for power in other jurisdictions. In our initial engagement, we heard both support and opposition to having bid security. Bid security helps ensure that proponents are committed to entering into an Electricity Purchase Agreement consistent with the Specimen EPA. Bid security discourages participation by speculative bidders and therefore may lower attrition.</p>
Request For Proposals Schedule	We are planning to issue the request for proposals in April 2024. The proposal submission deadline will be four months after RFP issued, expected to be in August 2024. Electricity Purchase Agreement awards will follow three months after proposal Submission deadline, anticipated to be in November 2024.

To enable BC Hydro to assess the bids to ensure that we are acquiring energy that meets the needs of our customers, we'll be applying commercial evaluation adjustors to bid prices that are reflective of the value to the system.

Adjustors	Description
Capacity Credit	<p>BC Hydro may consider providing a capacity credit in the RFP evaluation for energy resources that can also provide dependable capacity when we need it (e.g., biomass, geothermal, and storage hydro).</p> <p>Dependable capacity is capacity that we can rely upon whenever it's needed during the year, such as cold winter evenings when demand for electricity is high.</p> <p>This Call for power is focused on acquiring energy resources, however we are interested in and value dependable capacity if a project can offer it. A capacity credit will not be given to wind, solar or run-of-river projects, as these resource types are not capable of providing dependable capacity.</p>

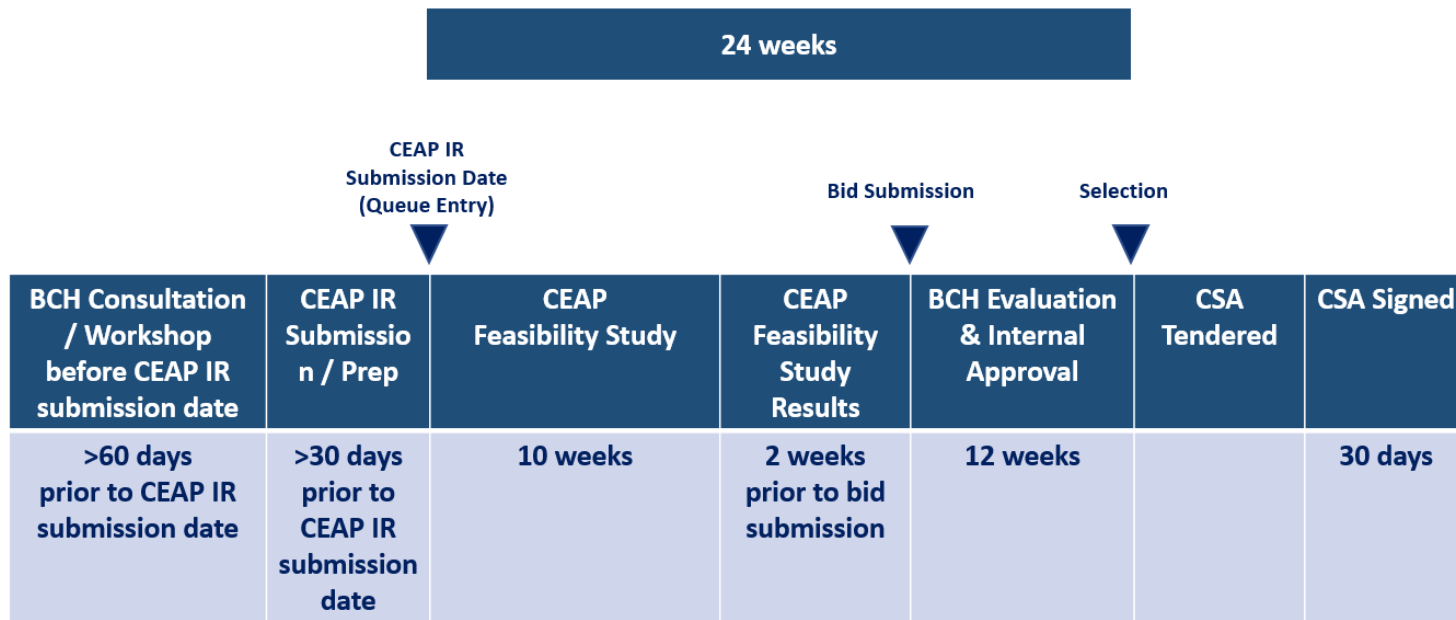
Adjustors	Description
<p>Integration Costs</p>	<p>Integration costs represent the cost to BC Hydro to integrate intermittent energy sources and ensure our customers receive electricity when these resources are fluctuating in output. The more variable a project is in delivering to our system, the more our system needs to be adaptable and available to absorb or back-stop these fluctuations.</p> <p>Run-of-river is relatively predictable based on historical records. Wider fluctuation occurs with wind and solar based on the variability of storms and cloud-cover. An integration cost of \$2/MWh will be applied for both wind and solar.</p>
<p>Interconnection Costs</p>	<p>All interconnection costs that BC Hydro is responsible for will be factored into the evaluation. BC Hydro costs can include:</p> <ul style="list-style-type: none"> ○ The network upgrade costs to connect the project to BC Hydro’s system, and ○ The costs associated with taking delivery of the energy and moving it through the transmission system.

5. INTERCONNECTION REQUIREMENTS

There are some areas of our transmission system that are constrained and significant upgrades in these areas to accommodate a new project are expected to create challenges, particularly in meeting desired timelines. We have heard from First Nations and stakeholders that they need to know the areas of the transmission system that are constrained, and we are looking into ways in which to provide such information prior to Call issuance. We are compiling this information and hope to release it late November 2023 as an indicative reference. Actual system constraints will be identified in the specific IPP feasibility studies and more detailed system impact studies that will take place later as part of the interconnection study process.

Interconnection Process

The interconnection process will follow the same process as past competitive calls; the Competitive Electricity Acquisition Process (CEAP), which is part of the Open Access Transmission Tariff (OATT). While the OATT sets out the general terms and conditions approved by the B.C. Utilities Commission for BC Hydro's transmission service, the CEAP prescribes the process for queue allocation and study processes for all submitted projects in a competitive Call.



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

The CEAP also defines the timelines for each step leading to the successful selection of the project proponents and execution of the Combined Study Agreement. The timelines for each step thereafter are defined in the Standard Generator Interconnection Procedures (SGIP).

The first interconnection study required by all proponents prior to bid submission will be a feasibility study which will be governed by the CEAP. Once successful participants have been selected and Combined Study Agreements executed, then the subsequent steps, such as the system impact study, facilities study and implementation, will all be governed by the SGIP. High-level descriptions of each step of the SGIP can be found here. [Transmission Generator Interconnections \(bchydro.com\)](https://www.bchydro.com/transmission-generator-interconnections)

Please fill out our feedback questionnaire to provide your perspective and help inform the development of the Call. You will find the feedback questionnaire at [Call for power engagement \(bchydro.com\)](https://www.bchydro.com/call-for-power-engagement) until October 25, 2023.