BC Hydro
Power smart

2025 Competitive Electricity Acquisition Process

June 26, 2025

BC Hydro
Power smart

Welcome

During the CEAP Workshop

- BC Hydro-shared information and responses to participants' questions are limited to CEAP-related topics. No information related to 2025 Call for Power RFP will be provided
- If any information related to 2025 Call for Power or its RFP is shared, it is not to be relied upon by participants as any representation, warranty, or covenant from BC Hydro
- Recordings are not permitted under any circumstances, including any recordings or detailed note taking in the form of AI

Territorial Acknowledgement

Agenda

Time	Topic	Speaker
9:00	Opening	Sachie Morii
9:10	Competitive Electricity Acquisition Process	Adam Tulloch
10:10	Break	
10:20	Standard Generator Interconnection Procedures	Dean Saldanha
10:40	Pre-Submission CEAP IR Requirements	Pierre Ledesma
10:55	Indirect Interconnections	Pierre Ledesma
11:10	Break	
11:20	Technical Interconnection Requirements Q&A	Sachie Morii & Technical SME's
11:50	Next Steps and Closing	Sachie Morii

Context for our discussion

- This presentation is for informational purposes only. If there are any conflict with terms of Open Access Transmission Tariff (OATT), OATT supersedes. BC Hydro assumes no responsibility for the completeness of the information presented
- Tips and examples shared are for informational purposes only. They may not apply to your specific situation
- Anyone with questions about the Call for Power rules, terms and conditions should consult the draft RFP document for answers or, in the alternative, seek independent legal or professional advice. All Call for Power information, including documents, questions and answers, can be found at www.bchydro.com/callforpower

Competitive Electricity Acquisition Process (CEAP)

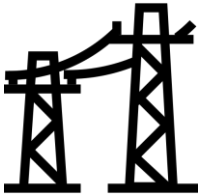
Adam Tulloch

Call for Power RFP vs. Interconnection Process

The Call for Power RFP and the interconnection process are distinct processes happening in parallel

Call for Power RFP is a competitive energy procurement process, which may result in Electricity Purchase Agreements (EPAs) between BC Hydro and a power generator.

RFP questions should be directed to
2025Call@bchydro.com



Interconnection Process refers to the process to connect generation to the grid. **BC Hydro follows the Competitive Electricity Acquisition Process (CEAP)** under Open Access Transmission Tariff (OATT) to support Call for Power RFPs.

CEAP questions should be directed to
CEAP2025@bchydro.com

2025 Call for Power's Eligibility Requirements & the Interconnection Request

It is the participant's responsibility to ensure the Interconnection Request is aligned with the eligibility requirements of the 2025 Call for Power RFP

Including but not limited to:

1. **Installed Capacity (MW)** – 40 MW or greater
2. **Point-of-Interconnection** – Must connect to the BC Hydro Integrated System, excluding the Fort Nelson and non-integrated areas. Could be direct or indirect connections. Projects that interconnect with other utilities (e.g. FortisBC) are not eligible
3. **Commercial Operation Date** – No later than Oct. 1, 2033

The CEAP will not identify if an Interconnection Request does not meet the 2025 Call for Power's RFP's eligibility requirements

CEAP Purpose & Documentation

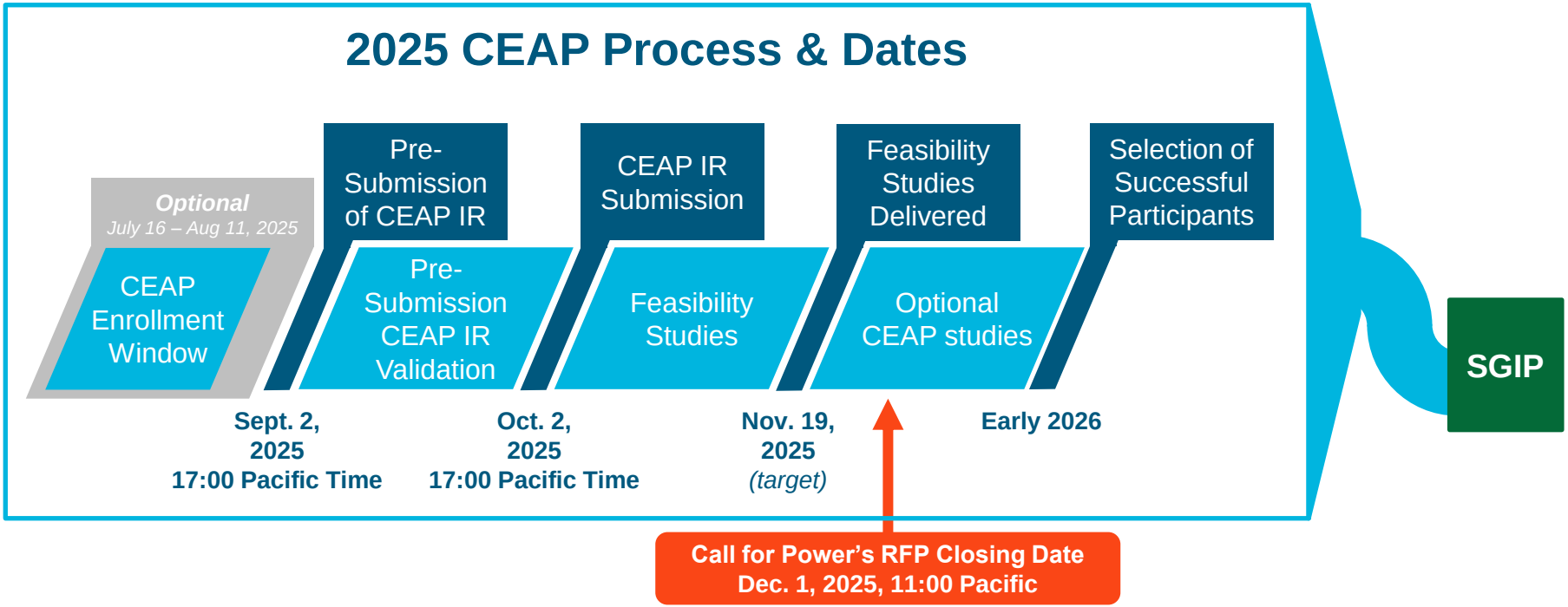
The CEAP is governed by the British Columbia Utilities Commission (BCUC), under BC Hydro's Open Access Transmission Tariff (OATT), *Attachment M-2: Transmission Service and Interconnection Service Procedures for CEAPs*

When the CEAP is complete, successful participants will move into the Standard Generator Interconnection Procedures (SGIP)

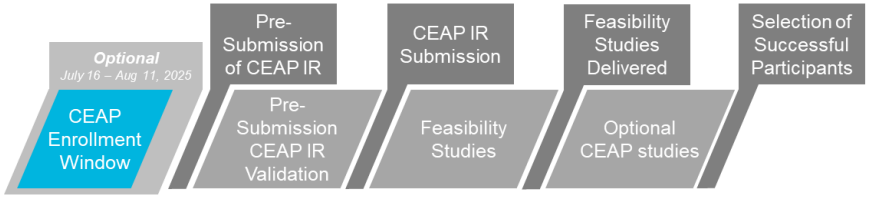
Process Requirement Classifications

- ***Mandatory*: <u>Missing a mandatory step will cause the CEAP Interconnection Request to be deemed withdrawn</u>**
- *Optional*: Completed at the CEAP Participant's will (no consequence of non-completion)
- *No CEAP Participant Action:* BC Hydro action only

CEAP Process



CEAP Process:
CEAP Enrollment Window



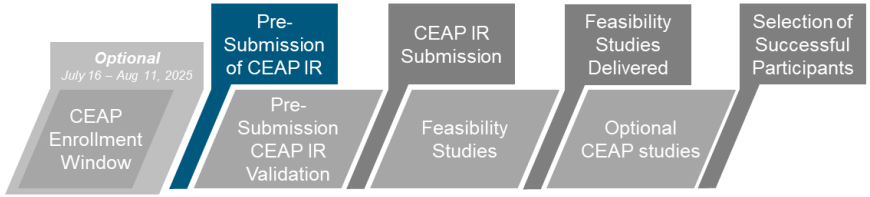
Requirement: **Optional**
Dates: **July 16 – Aug. 11, 2025**

Process for optional enrollment:

1. **Sign up** for enrollment by completing form on the **CEAP webpage** (available on July 16, 2025)
2. **BC Hydro will send an enrollment form**, requesting:
   - Legal entity name, address, contact information for payments
   - List of expected Interconnection Requests under that entity
3. **CEAP Participant complete enrollment** form and return to BC Hydro
4. **BC Hydro will provide a unique CEAP IR Number –** this number is to be referenced by the CEAP Participant with all submissions/communications throughout the CEAP

Deposit invoices will be sent to CEAP participants upon receipt of pre-submission CEAP IRs

CEAP Process: Pre-Submission of CEAP IR



Requirement: **Mandatory**

Start Date: **July 16, 2025**

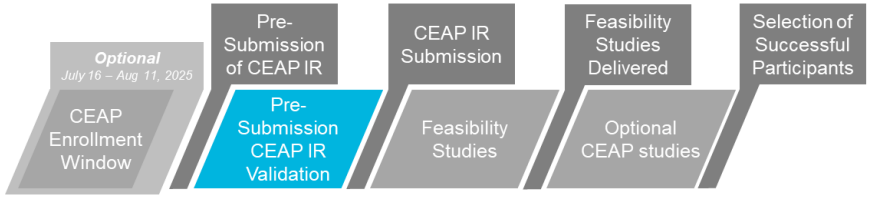
Deadline: **Sept. 2, 2025, 17:00 Pacific Time**

CEAP Participants must submit the following by the deadline:

1. *Interconnection Request for a Generating Facility – CEAP* Form in PDF format.
2. Two duplicated copies of the *Interconnection Request – Generator Interconnection Data Form*
   - *One copy as a PDF, sealed by a Professional Engineer Licensed in BC or Registered in BC*
   - *One copy as a Microsoft Excel file*

Submission instructions will be posted on the **CEAP webpage**

CEAP Process: Pre-Submission of CEAP IR Validation



Requirement: **Mandatory**
Dates: **Sept. 3/CEAP IR Pre-Submission date – Oct. 2, 2025, 17:00 Pacific Time**

Data Review & Validation of Pre-Submission of CEAP IR

1. BC Hydro will review the pre-submission of CEAP IRs for completeness and consistency. The CEAP Participant will receive a deficiency list if there are any deficiencies
2. CEAP Participants have 10 business days to cure deficiencies **from receipt of notification of deficiencies**

BCH will tender a Feasibility Study Agreement & send invoice for $30,000 deposit (if invoice was not already sent earlier)

CEAP Process: Pre-Submission of CEAP IR Validation

Only Pre-Submission CEAP IRs BC Hydro has on Sept. 2, 2025 at 17:00 will be considered*

An early Pre-Submission of a CEAP IR may allow multiple rounds of data review

***EXAMPLE*: Early Pre-Submission of CEAP IR**

If Company X's IR is deemed withdrawn before the CEAP IR Pre-Submission Deadline, the IR can be re-submitted!

July 16, 2025
Pre-Submission of CEAP IR Start Date

5 Business Days

July 21
Company X Submits Pre-Submission IR

July 28
BC Hydro Sends Deficiency List

10 Business Days

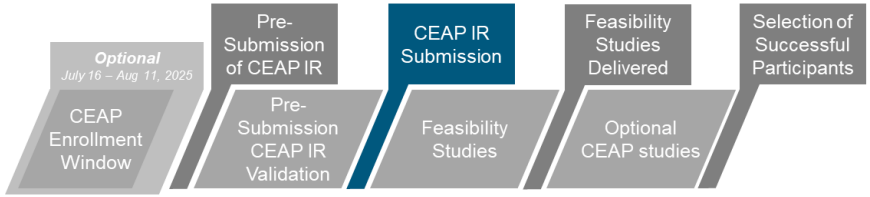
Aug. 12
Company X does not cure deficiencies within 10 days; ***IR is deemed withdrawn***

Company X Submits Pre-Submission IR ***Again***

Sept. 2, 2025 17:00 Pacific Time
Pre-Submission of CEAP IR Deadline

***Does not include those deemed withdrawn**

CEAP Process:
CEAP IR Submission



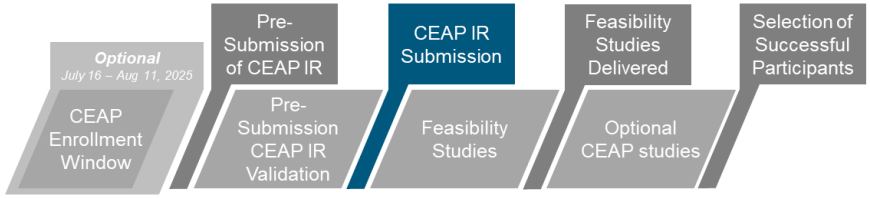
Requirement: **Mandatory**
Deadline: **Oct. 2, 2025, 17:00 Pacific Time**

CEAP Participants must complete the following by the deadline:

1. Submit a valid (deficiency-free) Interconnection Request
2. Execute the tendered Feasibility Study Agreement
3. Pay the CEAP IR and Feasibility Study deposit of $30,000 + GST

Valid CEAP IRs will have the same queue position/priority, effective Oct. 2, 2025

CEAP Process:
CEAP IR Submission

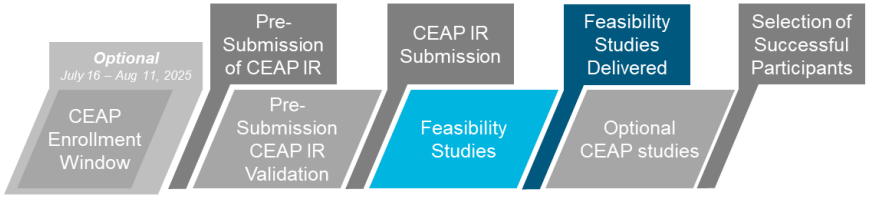


Requirement: **Mandatory**
Deadline: **Oct. 2, 2025, 17:00 Pacific Time**

Details on Payment of CEAP IR and Feasibility Study Deposits:

1. Payment must be **received by BC Hydro** by the deadline
2. Detailed instructions on how to submit payment will be provided with emailed deposit invoice after CEAP enrollment / Pre-Submission of CEAP IR
    - Electronic payments (e.g. EFTs or wire transfers) are preferred; please account for bank processing time
3. CEAP Enrollment is highly recommended, as it allows BCH to issue invoices earlier, ensuring ample time for payment to be made

CEAP Process: Feasibility Studies



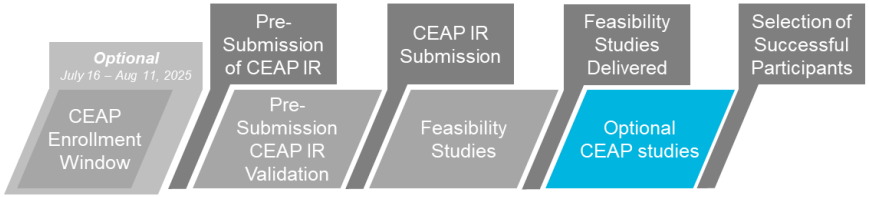
Requirement: **No CEAP Participant Action**
Dates: **Oct. 3 – Nov. 19, 2025 *(target)***

BC Hydro will complete a Feasibility Study as per the executed Feasibility Study Agreement. The studies:

1. **Will** preliminarily evaluate the feasibility of the IR using a common set of base cases
2. **Will** provide of a power flow and short circuit analysis, and confirm technical feasibility of point of interconnection
3. **Will** include a non-binding good faith estimate of Network Upgrades and estimated time to construct
4. **Will not** consider the other valid CEAP IR's – each IR will be studied independently

Feasibility Studies will be delivered to each Participant on the same day

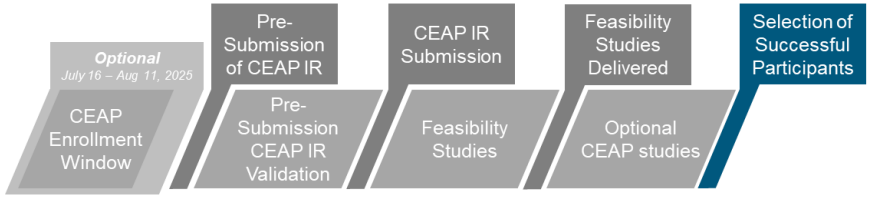
CEAP Process: Optional CEAP Studies



Requirement: **No CEAP Participant Action**
Dates: **Nov. 19, 2025 *(target)* – Early 2026**

- BC Hydro will complete optional studies (e.g. loss studies, cluster studies) to support evaluation of bids
- These optional studies will assist the 2025 Call for Power team in their Selection of Successful Participants

CEAP Process: Selection of Successful Participants



Date: Early 2026

All Participants will be invoiced/refunded to reconcile the actual costs to complete the data review and Feasibility Study with the deposits provided within 90 days of delivery of the Feasibility Studies

($15K Interconnection Request deposit is non-refundable with a valid Interconnection Request).

Upon Selection of Successful Participants…

Successful Participants

Will continue to the SGIP; BC Hydro will tender a Combined Study Agreement

Unsuccessful Participants

Will be deemed withdrawn

Transition to SGIP

Once the CEAP is complete, the Interconnection Request is governed by BC Hydro's Open Access Transmission Tariff (OATT), *Attachment M-1: Standard Generator Interconnection Procedures (SGIP) including Standard Generator Interconnection Agreement (SGIA)*

CEAP Cost Summary, Key Dates, & Contact Info

CEAP Cost Summary

Cost Type	Deposit / Cost Treatment
Interconnection Request & Feasibility Study	Deposit: $30,000 + GST *($15k for IR + $15k for Feas. Study)* $15,000 IR deposit is non-refundable with a valid interconnection request CEAP Participant pays actual costs upon reconciliation

CEAP Key Dates

BCH Begins Accepting Pre-Submission of CEAP IRs	July 16, 2025
Pre-Submission of CEAP IR Deadline	Sept. 2, 2025 at 17:00 Pacific Time
CEAP IR Submission	Oct. 2, 2025 at 17:00 Pacific Time
Feasibility Study Report Delivered	Nov. 19, 2025 *(target)*
Selection of Successful Participants	Early 2026

For all questions regarding this CEAP, email CEAP2025@BCHydro.com
or visit the Competitive Electricity Acquisition Processes (CEAP) webpage

BC Hydro
Power smart

Questions

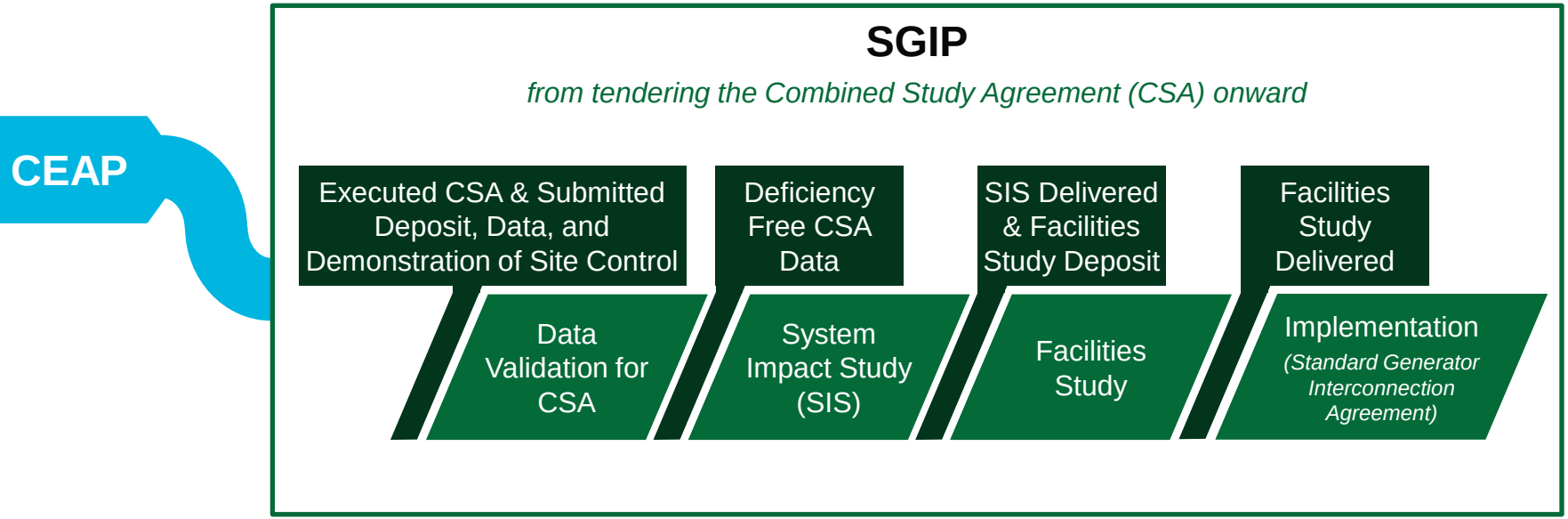
BC Hydro
Power smart

Coffee Break

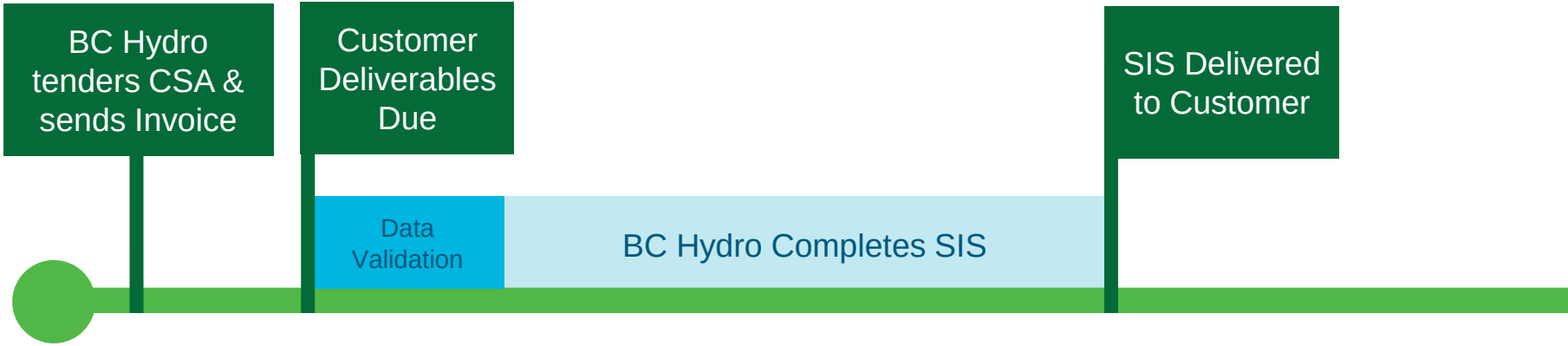
Standard Generator Interconnection Procedures (SGIP)

Dean Saldanha

Standard Generator Interconnection Procedures (SGIP)



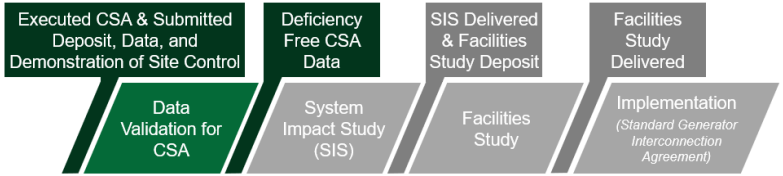
SGIP Process until SIS delivery



Data Validation:

1. Within **5 business days** of the CSA execution & delivery, BC Hydro will identify deficiencies
2. Within **10 business days** of deficiency list being sent, the Interconnection Customer must cure deficiencies and re-submit accordingly or will be deemed withdrawn

Combined Study Agreement (CSA)



Interconnection Customers must complete the following

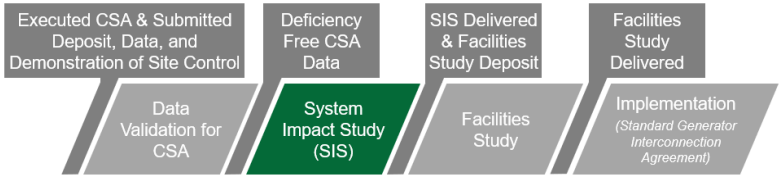
1. Execute a *CSA (OATT - Appendix 3)*
2. Pay the provided deposit amount of $75,000 + GST
3. Demonstrate evidence of Site Control

This must be completed no later than **30 Calendar days** after receipt of the CSA.

After submission, the following process is followed:

1. Data Review & Validation of GIDF and site control
    - Within **5 business days** of the CSA execution & delivery, BC Hydro will identify deficiencies in the submitted information and send a deficiency list
    - Within **10 business days** of deficiency list being sent, the Interconnection Customer must cure deficiencies and re-submit accordingly or will be deemed withdrawn

What is a System Impact Study?



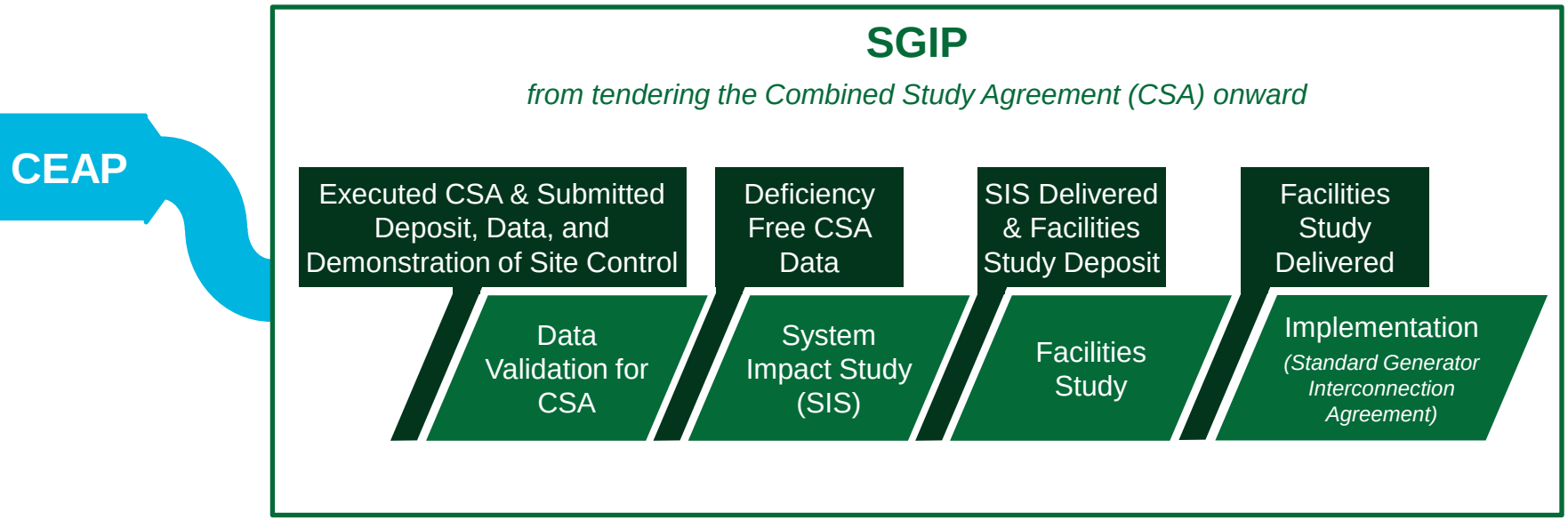
The System Impact Study (SIS) evaluates the impact of an Interconnection Request on the Transmission System and is a mandatory step

The SIS will consist of a

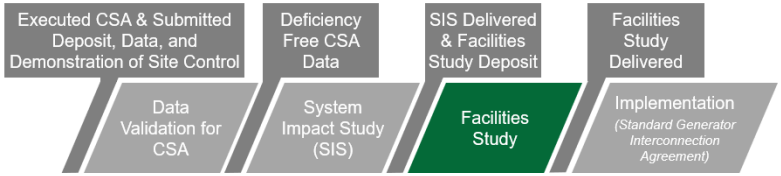
- Power flow analysis
- Short circuit analysis
- Stability analysis (transient / voltage stability)
- EMTP type studies
- Identification of Remedial Action Scheme (RAS) requirement (if applicable)
- Identification of Network Upgrades

This study will provide a non-binding good faith estimate for costs and time to construct/install for a list of required facilities

Standard Generator Interconnection Procedures (SGIP)



What is a Facilities Study?

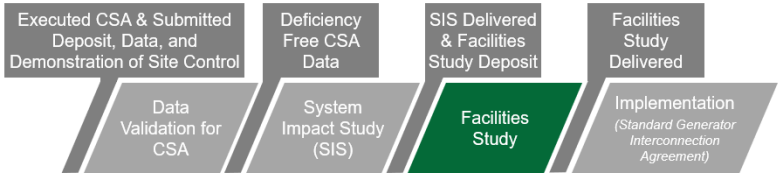


The Facilities Study will provide a cost estimate for the **equipment, engineering, procurement, and construction work** needed to implement the conclusions of the Interconnection Request's System Impact Study

The Facilities Study:

- Provides Project Interconnection Requirements
- Identifies the electrical switching configuration of the connection equipment
- Specifies necessary Network Upgrades
- Provides estimated Network Upgrades costs
- Provides schedule to construct the Interconnection Facilities & Network Uprades

What is a Facilities Study?



- A Facilities Study is **MANDATORY** for successful Interconnection Requests submitted under CEAP

- BC Hydro will use reasonable efforts to complete the Facilities Study within **270 calendar days**

- All costs to complete the Facilities Study will be the responsibility of the Interconnection Customer. Any difference between the deposit and the actual cost of the study shall be paid by or refunded to the Interconnection Customer, as appropriate

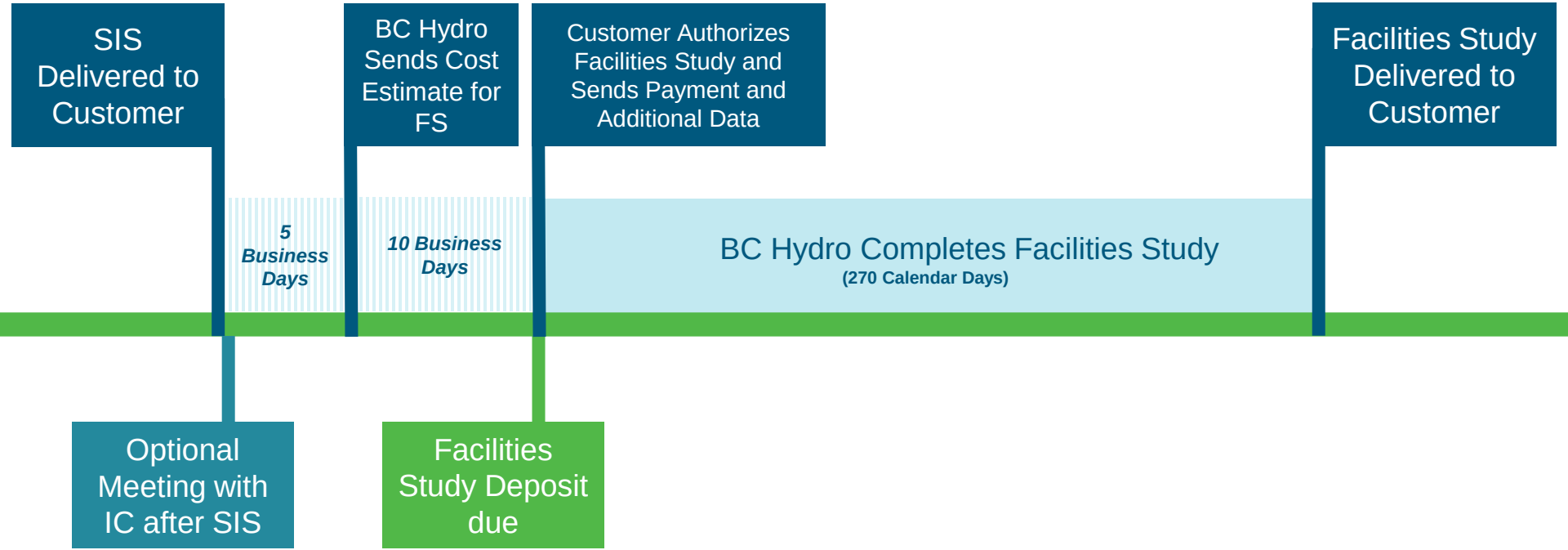
Early Engineering & Procurement Agreement (Optional)

Optional: **This step is optional and can be taken during the Facilities Study, prior to executing a Standard Generator Interconnection Agreement (explained later)**

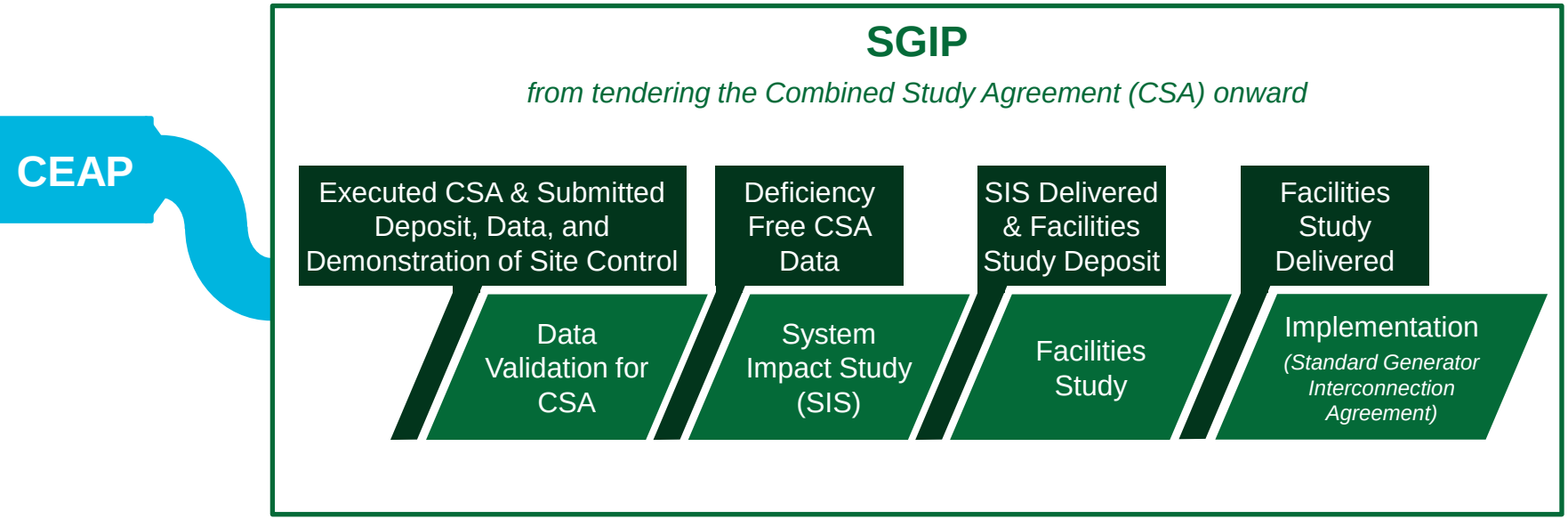
- An Interconnection Customer may request an early Engineering and Procurement (E&P) Agreement which **authorizes BC Hydro to begin engineering and procurement of long lead-time items** in order to advance the implementation of the interconnection

- The E&P Agreement will not alter the queue position or in-service date, and the Interconnection Customer must provide security for all Network Upgrades activities advanced by the E&P Agreement

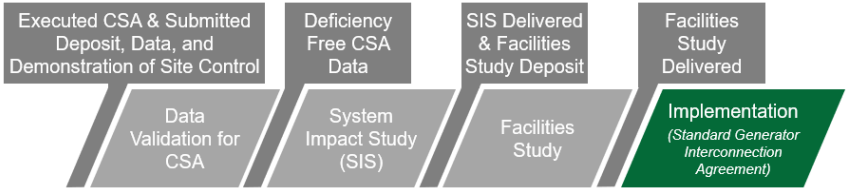
Interconnection Process - Timeline



Standard Generator Interconnection Procedures (SGIP)



Standard Generator Interconnection Agreement



- A Standard Generator Interconnection Agreement (SGIA) outlines the terms and conditions of the interconnection
- Following the signing of a SGIA, BC Hydro will initiate construction and commissioning of the identified Network Upgrades
- Once the Generating Facility is online and commercially operating, the SGIA governs the terms and conditions by which the interconnection with BC Hydro's Transmission System is managed

Note: The SGIA can be found in OATT Attachment M-1, Appendix 5

Implementation Process

Cost Summary

Cost Type	CEAP / SGIP	Deposit / Cost treatment
Interconnection Request & Feasibility Study	CEAP	Deposit: $30,000 + GST *($15k for IR + $15k for Feas. Study)* $15,000 IR deposit is non-refundable with a valid interconnection request CEAP Participant pays actual costs upon reconciliation
System Impact Study	SGIP	Deposit: $75k + GST Proponent pays actual costs
Facilities Study	SGIP	Deposit: $150k + GST Proponent pays actual costs
Network Upgrades under the early Engineering & Procurement Agreement / Standard Generator Interconnection Agreement	SGIP	Interconnection Customer provides Security (Letter of Credit) Security will be released incrementally after COD as per OATT terms

BC Hydro
Power smart

Questions

Pre-Submission CEAP IR Requirements

Pierre Ledesma

Interconnection Request (IR) for a Generating Facility - CEAP

Purpose

Collect customer and general project information to initiate Interconnection Request under CEAP

Information Collected

- Customer Information – Note: the entity name and address provided will be used for invoicing unless you specify otherwise
- Project Name and General Description of the proposed Generating Facility or Increased Generation

Note: Forms can be downloaded on the Transmission Generator Interconnection CEAP webpage

Generator Interconnection Data Form (GIDF)

Purpose

Collect technical project information and electrical data to conduct a Feasibility Study

Information Collected

- Project Information – Point of Interconnection (POI), In Service Dates, Coordinates
- Generating Plant Information – Capacity, Power Factor, Reactive Compensation
- Equipment Information – Generators, Transformers, Breaker, Line, Protection

Attachments

- Single Line Diagram (SLD)
- Generator Capability Curves, Power Flow Model
- Site Location Map including POI and site location (E.g. Google kmz file)

Note: Forms can be downloaded on the Transmission Generator Interconnection CEAP webpage

Generator Interconnection Data Form (GIDF)

Reminders

- Follow instructions on the GIDF form
- Complete all applicable Tabs and Sections:
  - Fill in all mandatory fields shaded **orange** - enter N/A for fields that are not applicable to your project.
- GIDF must be signed and sealed by EGBC Professional Engineer
  - Re-submissions must be re-sealed

Lessons Learned

- Ensure Project Name and Legal Name matches information on IR form
- CEAP Data Review and Validation does not consider Call for Power RFP eligibility requirements (e.g. ISD, Generating Capacity, etc.)
- Max Injection at POI vs Installed Capacities for all generators
  - Max Injection at POI should be lower than Installed Capacity
  - Installed Capacity cannot be increased in the future without impacting your queue position

Pre-Submission CEAP IR Package

A complete Pre-Submission CEAP IR submission package includes:

- IR Form (PDF)
- GIDF (Excel and PDF signed and sealed by EGBC professional engineer)
- Applicable GIDF Attachments (e.g., Site Location Map, SLD, Power Flow, etc.)

Note: Incomplete and/or erroneous applications will result in deficiencies!

How to submit your Pre-Submission CEAP IR Package

Pre-Submission CEAP IR submission window: **July 16, 2025 to September 2, 2025 @ 5pm Pacific Time**

Submit via email to: CEAP2025@bchydro.com

- Each Interconnection Request must be submitted on a separate email - Regardless if it's for the same owner or generating facility
- Ensure to reference your CEAP IR # in the subject line of your email (if available)

Note: No deposit required for Pre-Submission CEAP IR

How to submit your Pre-Submission CEAP IR Package

Emails with file size larger than 10MB must be uploaded to BCH ShareFile

To request BCH ShareFile access - send email to CEAP2025@bchydro.com including:

- Project Name
- CEAP IR # (if available)
- Full Legal Name (e.g. Company Name)
- 2 contacts - Full name and email address

Note: Ensure you send your request at least 3 business days ahead of submitting your Pre-Submission CEAP IR Package to avoid delays

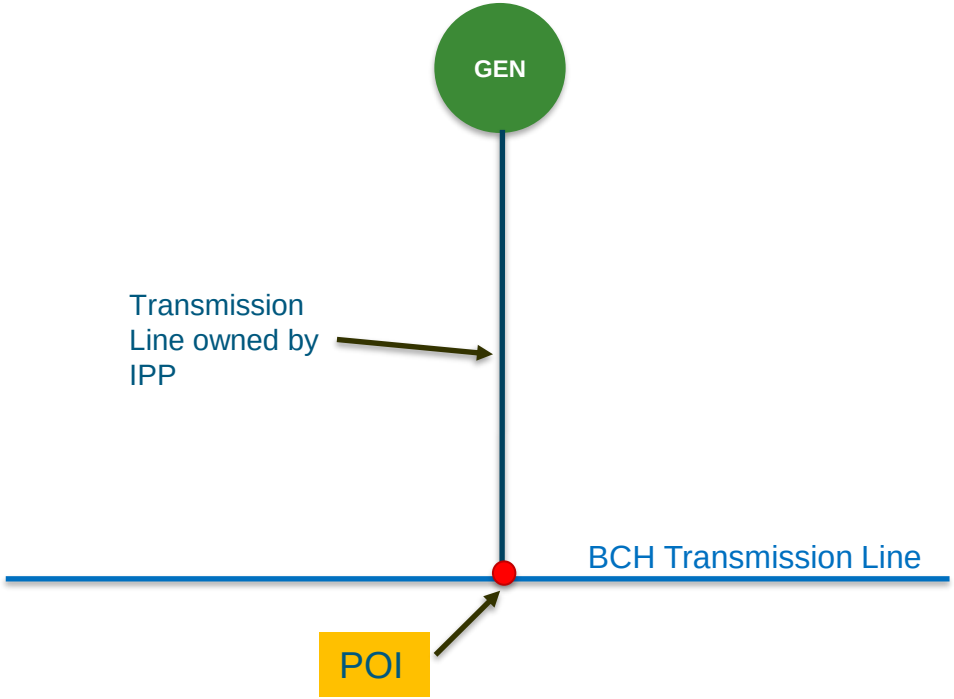
BC Hydro
Power smart

Questions

Indirect Interconnections

Pierre Ledesma

Direct Interconnection



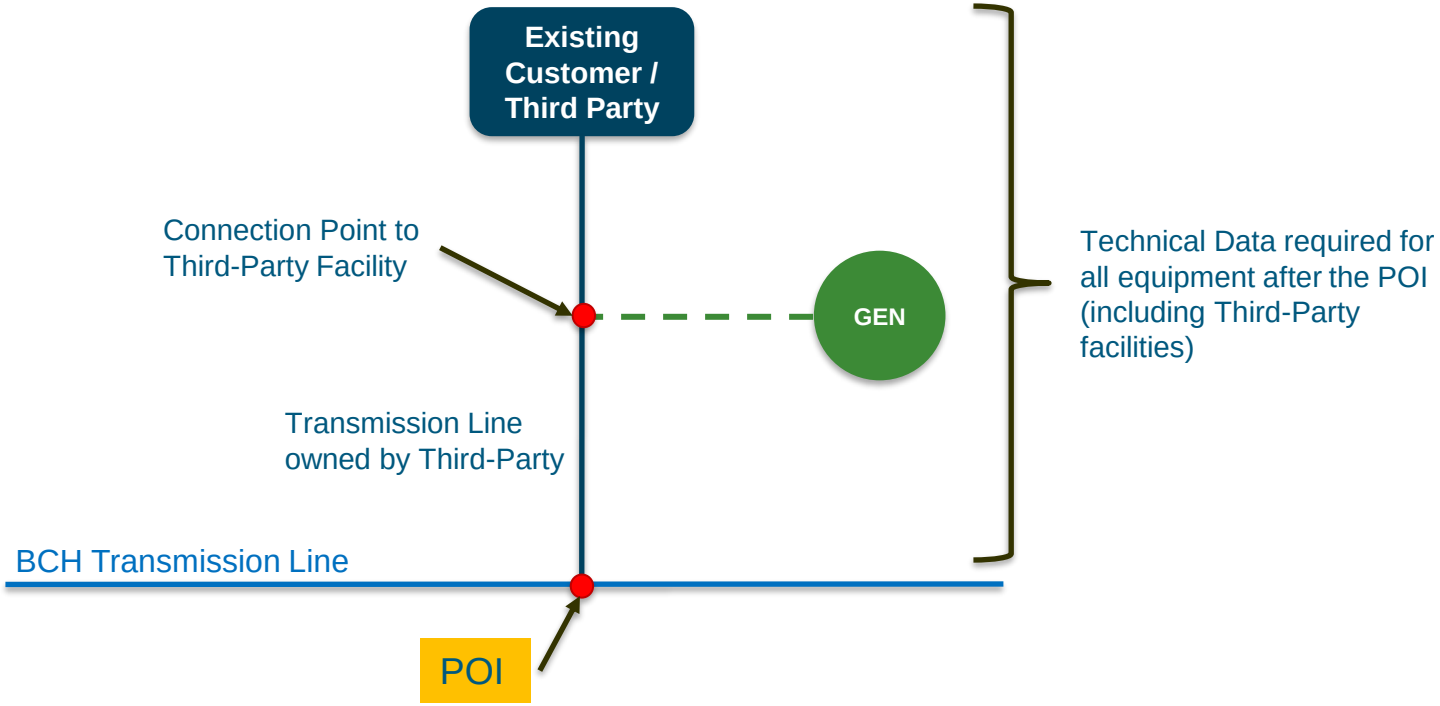
Indirect Interconnection

Indirect Interconnection is when the proposed facility will either connect through a Point of Interconnection (POI) that is:

- Owned by a Third-Party; **or**
- Jointly owned with a Third-Party

The POI is where the Third-Party owned system interconnects to the BC Hydro system

Indirect Interconnection



Indirect Interconnections – Considerations

Confirmation of third-party agreement will be required at later stage in the interconnection process

Amendments to existing agreements the Third-Party has with BC Hydro may be required

Depending on the size and type of the generator, and the voltage of the interconnection, a Generator may be classified as a **Bulk Electric System (BES)** element[1], and prior to commercial operation the proponent must register with the BCUC as a Generator Owner

- For an indirect interconnection, the third party will also need to register with the BCUC as a Transmission Owner & Transmission Planner, and be subject to the applicable Mandatory Reliability Standards

[1]Refer to the NERC *Bulk Electric System Definition Reference Document*

BC Hydro
Power smart

Questions

BC Hydro
Power smart

Coffee Break

Technical Interconnection Requirements Q&A

Sachie Morii

Introducing Technical SMEs

Robert Pan – Technical Strategic Principal, Interconnection Planning

Bruce Chen – Team Lead, Analytical Studies

Kenan Hadzimahovic – Manager, Protection & Control Planning

Parker Moore – Specialist Engineer, Telecom Planning

Colin MacIntosh – Team Lead, Revenue Metering

Additional Requirements

Interconnection Request must comply to:

1. BC Hydro's 60 kV to 500 kV Technical Interconnection Requirements for Power Generators
    - Found at Transmission Generator Interconnections
2. Complex Revenue Metering Requirements
    - Found at Complex Revenue Metering
3. Industry & regulatory requirements, including those set by the BCUC (Mandatory Reliability Standards)

Technical Interconnection Requirements

Next steps

Next Steps:

- This presentation and responses to any unanswered questions will be posted on 2025 CEAP website
- 2025 CEAP enrollment window will open on
  July 16, 2025
- We will start accepting pre-submission of CEAP IRs on
  July 16, 2026

CEAP References, Key Dates & Contact Info

CEAP References & Contact Info

For all questions regarding this CEAP, email CEAP2025@BCHydro.com or visit the Competitive Electricity Acquisition Processes (CEAP) webpage

Technical References:

Complex Revenue Metering

Technical Interconnection Requirements for Power Generators

CEAP Key Dates

BCH Begins Accepting Pre-Submission of CEAP IRs	July 16, 2025
Pre-Submission of CEAP IR Deadline	Sept. 2, 2025 at 17:00 Pacific Time
CEAP IR Submission	Oct. 2, 2025 at 17:00 Pacific Time
Feasibility Study Report Delivered	Nov. 19, 2025 *(target)*
Selection of Successful Participants	Early 2026

BC Hydro
Power smart

Thank you