Generator Interconnection Facilities Restudy Report

for the

240 MW [redacted] Project

for

[redacted]

in

Elmore County, Idaho

September 24, 2024

FACILITIES RESTUDY REPORT (RFSR)

1. General Facility Description

Idaho Power Company (IPC) identified a necessary change to the transmission system models, specifically related to the area around IPC's recently triggered Gateway West (GWW) segment 8 project. As a result, IPC identified all generation interconnection projects in the area, including [redacted] #605 (the Project), would require a System Impact Restudy (RSIS) and Interconnection Facilities Restudy (RFS) to be performed. This RFSR provides the results of the required RFS performed for the integration of the proposed 240 MW Project.

[redacted] (Interconnection Customer) has stated that the proposed project will consist of a [redacted] solar photovoltaic plant with a [redacted] battery energy storage system (BESS) in Elmore County, Idaho and interconnect at a single [redacted] Point of Interconnection (POI) at IPC's Rattlesnake Station 230kV bus. The total project output as studied is 240 MW.

Contact information for Interconnection Customer is as follows:

[redacted]

An amendment to the executed Standard Large Generator Interconnection Agreement (LGIA) under IPC's Open Access Transmission Tariff (OATT) between Interconnection Customer and IPC (Transmission Provider) for the 240 MW Project will be prepared. The LGIA and associated amendment will be a definitive agreement that contains terms and conditions that supersedes this RFSR.

Project Queue and Affected Systems:
If senior-queued project that is responsible for providing additional transmission capacity should withdraw from the queue, a junior-queued project that may have been relying on at least a portion of any "surplus" capacity may then be faced with additional project costs for transmission capacity additions of their own. As of the date of this report, there are projects in the queue (GI #530, GI #551, GI #556, GI #558, GI #562, GI #567, GI #588, GI #590, and GI #604) ahead of the Project for which costs related to transmission capacity upgrades or additions could be passed on to the Project should changes be made to their queue position or generation output.

The recommended upgrades for GI #530, GI #551, GI #556, GI #558, GI #562, GI #567, GI #588, GI #590, and GI #604 were assumed to be completed prior to the interconnection of the Project.

The following Transmission Provider planned system improvements were assumed in service:

- 50% series capacitance compensation on the Kinport to Midpoint 345kV transmission line (2025)
- Midpoint Substation transformer T502 500:345kV transformer (2025)
- Hemingway to Bowmont 230kV transmission line (2025)

- Bowmont to Hubbard 230kV transmission line (2026)
- Boardman to Hemingway 500kV transmission line (Q2 2027)

There are identified contingent facility upgrades for GI #530 (also identified in GI #567, GI #588 and GI #604) and Transmission Provider planned system improvements that are required to be completed prior to interconnection of the Project. Details on the contingent facilities identified are in Appendix B.

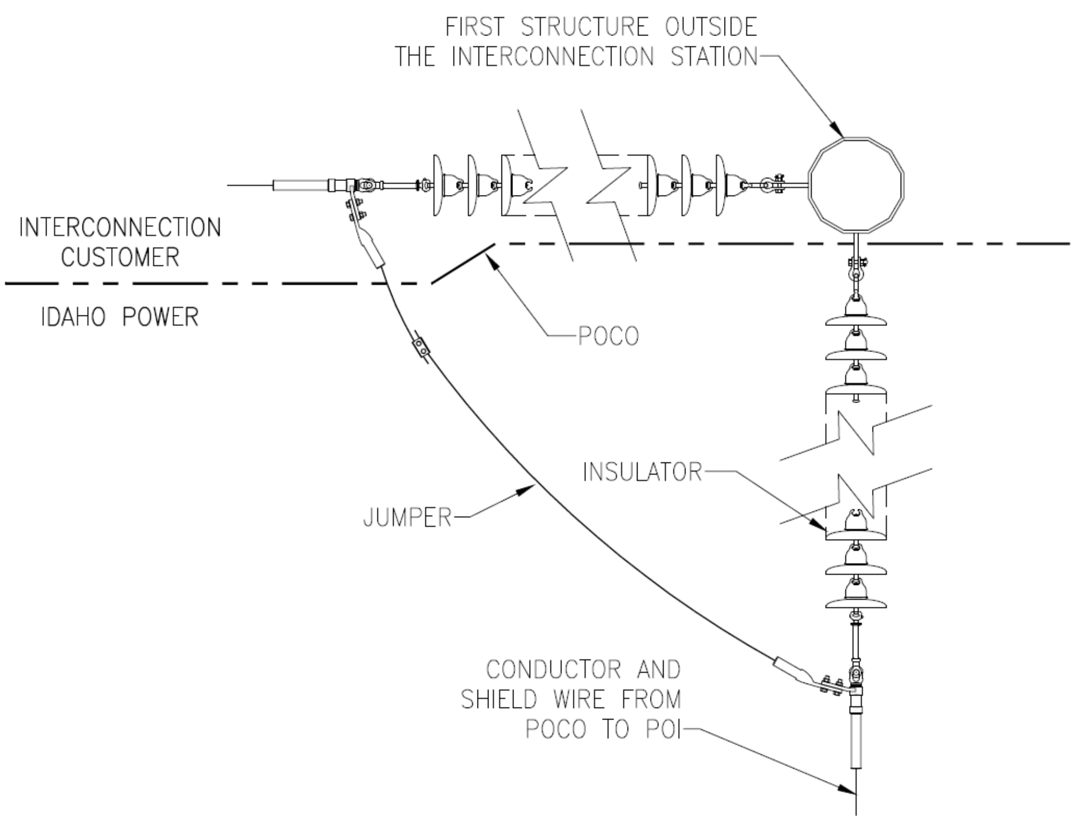
For the above and other reasons, the cost estimates included in this RFSR are estimates only, are based on currently known or assumed facts that may not be accurate or materialize, and are subject to change.

1.1 Interconnection Point

The Project's POI will be at Interconnection Customer's requested POI of the Rattlesnake 230kV station. The preliminary configuration for the POI interconnects the Project on the node on the [redacted] bus connection between switch [redacted] and switch [redacted] at IPC's Rattlesnake Station. A drawing detailing the preliminary POI configuration is attached as Exhibit 1. This configuration will be finalized during construction, and the final configuration will be captured in an LGIA amendment, if necessary.

1.2 Point of Change of Ownership

The Point of Change of Ownership (POCO) for the Project will be at the first structure outside the interconnection station. The structure at the POCO will be part of Interconnection Customer's Interconnection Facilities. The jumper will be part of IPC's Interconnection Facilities. The following drawing provides generic information and standard requirements for the POCO.



Note the following related to the POCO:

- The first structure outside the interconnection station shall be designed as follows:
    - Vertical construction
    - 90-degree max line angle
    - Steel
    - IPC phase spacing
- Interconnection Customer's OPGW shall terminate at an Interconnection Customer provided splice box on the structure.
- Interconnection Customer shall inform IPC of the conductor size.
- IPC and Interconnection Customer shall coordinate phase configuration (e.g., 321, 213, etc.).
- Insulator parts shown in the diagram are for representation only; actual parts used will be dependent on final design.

1.3 Interconnection Customer's Interconnection and Generating Facilities

1.3.1 Interconnection Customer's Interconnection Facilities

Interconnection Customer's Interconnection Facilities are located in IPC's Capital region in Township [redacted], Range [redacted] and Section [redacted] approximately [redacted] away from IPC's Interconnection Facilities at Rattlesnake Station. Interconnection Customer will install disconnect switches, distribution collector system, transformers (including a main step-up transformer), controllers, appropriate grounding measures, and associated auxiliary equipment. The main step-up transformer is a [redacted] unit and should provide an adequate ground source for transmission line protection.

Interconnection Customer will build [redacted] facilities to the POCO, including a gen-tie line with a minimum 24-count OPGW from Interconnection Customer's Interconnection Facilities to Transmission Providers' Interconnection Facilities. Interconnection Customer is responsible to mirror IPC's System Protection to include dual SEL-411L installation for protection of the interconnection intertie.

1.3.2 Generating Facilities

Interconnection Customer will install solar arrays, batteries, and inverters. Interconnection Customer's system will be constructed as follows:

1. The photovoltaic inverter system will comprise of [redacted] inverters each with an apparent power rating of [redacted].
2. The BESS will comprise of [redacted] inverters each with an apparent power rating of [redacted].
3. A plant controller will be used to control the inverter system and to implement smart inverter functionality for operating the project within a voltage range and power factor specified by IPC at the point of interconnection

The above referenced inverters, or equivalent inverters that have the same specifications and functionality as stated above must be utilized. If a different inverter is utilized that has different specifications and functionality than that which was studied, then additional study and/or equipment may be necessary.

The BESS component of the project was studied charging from the grid in steady state under N-0 (no contingencies) conditions. The charging was assumed to be interruptible. No Network Upgrades were identified to support charging the BESS. There may be times during the year where system load and conditions in the local area will prevent charging of the BESS at full capacity; for example, a forced outage that would require curtailed charging. Should the Project require non-curtailable charging from the grid, then Point-to-Point firm transmission service from the energy market to the BESS and from the Project to the point of delivery would be needed.

1.4 Other Facilities Provided by Interconnection Customer

1.4.1 Telecommunications

Interconnection Customer is not responsible for any third-party communication circuits for IPC's Interconnection Facilities. Any additional telecommunication requirements will be the sole responsibility of the Interconnection Customer.

1.4.2 Ground Fault Equipment

Interconnection Customer will install transformer configurations that will provide a ground source to the transmission system.

1.4.3 Generator Output Limit Control

Interconnection Customer will install equipment to receive signals from IPC Load Serving Operations for Generation Output Limit Control (GOLC)—see Section 3 Operating Requirements and Appendix A. IPC's recommended method of communication for GOLC is via fiber between the IPC's Interconnection Facilities and the Project.

1.4.4 Local Service

Interconnection Customer is required to take local service as an IPC retail customer. Interconnection Customer is responsible to arrange for local service to their site and to coordinate such requirements with IPC so that local service can be provided in accordance with the provisions contained within the applicable service schedule. The service schedule and functional settlement will be determined during construction of the Project.

1.4.5 Property

There are no property transaction requirements related to IPC's Interconnection Facilities or Network Upgrades identified in this study.

Interconnection Customer may be required to obtain transmission easements and/or transmission line crossing agreements from IPC depending on the designed path of Interconnection Customer's [redacted] gen-tie line.

1.4.6 Site Work

No site work is required beyond that identified for Network Upgrades on property already owned by IPC.

1.4.7 Monitoring Information

If Interconnection Customer requires the ability to monitor information related to the IPC breaker/relay (i.e., Mirrored Bits) in IPC's Interconnection Facilities, they are required to supply their own communications circuit to the interface area of the interconnection yard. The fiber communication circuit used for GOLC is acceptable.

1.4.8 Meteorological Data

In order to integrate the solar energy into the IPC system and operate IPC's solar forecasting tool, Interconnection Customer must provide solar irradiation and weather data from the Project's physical location to IPC via real time telemetry in a form acceptable to IPC. The associated cost for obtaining this data is Interconnection Customer's responsibility.

The data must be provided at 10-second intervals and consist of:

1. Global Horizontal Irradiance
2. Plane of Array Irradiance
3. Ambient Temperature
4. Wind Speed and Wind Direction
5. Relative Humidity

The installed instruments must equal or exceed the specifications of the following instruments:

- *Temperature and Relative Humidity*: R.M Young Relative Humidity and Temperature Probe Sensors Model 41382
- *Wind*: R.M Young Wind Monitor Model 05103
- *Pyranometer:* Apogee Instruments Model SP-230

1.4.9 Generator Technical Information & Drawings

During Project design development, Interconnection Customer shall provide draft design prints containing technical information, including but not limited to impedances and equipment brand and models. After construction, Interconnection Customer shall submit to IPC all the as-built information, including prints with the latest approved technical information and commissioning test results in accordance with the timing requirements outlined in the LGIA.

1.5 IPC's Interconnection Facilities

Transmission Provider's Interconnection Facilities are referred to hereafter as "IPC's Interconnection Facilities." IPC will install at the Rattlesnake 230kV switching station the last span of the Project's gen-tie line, including insulators, conductor, and associated hardware; [redacted] meter; [redacted] dead-end structure; [redacted] air break switch; [redacted] CTs; required foundations; and fiber communication equipment to allow Interconnection Customer to interconnect the project. IPC will install facilities up to the POCO.

IPC will install equipment to collect and transmit Phasor Measurement Unit (PMU) data to IPC. The data can be made available to Interconnection Customer on request.

The minimum acceptable PMU message rate is 30 messages per second. The minimum set of PMU measurement channels recorded at the POI is shown below. Additional or substitute channels may be required on a per case basis depending on the interconnection configuration and facility design details.

- Frequency
- Frequency Delta (dF/dt)
- Positive Sequence Voltage Magnitude
- Positive Sequence Voltage Angle
- Positive Sequence Current Magnitude
- Positive Sequence Current Angle

2. Estimated Milestones

These milestones will begin, and the construction schedule referenced below will only be valid, upon receipt of funding from Interconnection Customer or its authorized third party no later than the date set forth in the ultimate LGIA for such payment. IPC will not commit any resources toward project construction that have not been funded by Interconnection Customer. Additionally, failure by Interconnection Customer to make the required payments as set forth in the ultimate LGIA by specified date(s) may result in the loss of milestone dates and construction schedules set forth below.

In the event Interconnection Customer is unable to meet dates as outlined in the ultimate LGIA, Interconnection Customer may request suspension of up to three years pursuant to Article 5.16 of the LGIA. Upon suspension of work pursuant to section 5.16 of the LGIA, the applicable construction duration, timelines, and schedules set forth in the ultimate LGIA shall be likewise suspended. The estimated milestones in the following table may be updated and revised for inclusion in the LGIA in light of subsequent developments and conditions.

Estimated Date	Responsible Party	Milestone
April 17, 2023	Interconnection Customer	Evidence of continuation of Site Control provided
April 20, 2023	Interconnection Customer	LGIA Executed
[redacted]	Interconnection Customer	Project placed in Suspension
May 4, 2023	Interconnection Customer	Provided Certificate of Insurance
15 Business Days following receipt of final LGIA Amendment	Interconnection Customer	LGIA Amendment Executed
March 2025		Contingent facilities associated with GI #530/567/588 complete (Appendix B, Table B1)
3 Years following Suspension	Interconnection Customer	Unsuspend project
15 Business Days following LGIA unsuspension	Interconnection Customer	**Project Initiation** IPC receives: • Construction funding or arrangements acceptable to IPC made with IPC's Credit Department • Reasonable evidence to show one or more of the development milestones as per LGIP Section 11.3 has been achieved • Notice to Proceed for design, procurement, and construction
18 months following Project Initiation	IPC	Engineering and Design complete

Estimated Date	Responsible Party	Milestone
2028	IPC	[redacted] contingent facility complete (Appendix B, Table B2)
2029	IPC	[redacted] substation contingent facilities complete (Appendix B, Table B2)
48 months following Project Initiation	IPC	Long Lead Material procured/received
8 months prior to COD	Interconnection Customer	Provide updated EMT models to complete modeling in accordance with IPC's OATT Attachment O
6 months prior to IPC Commissioning	IPC	New generation modeled and submitted to the Western Energy Imbalance Market Failure to submit by given lead time will result in project delay
180 Calendar Days prior to Initial Synchronization	Interconnection Customer	Provide a completed copy of the Large Generating Facility data requirements contained in Appendix 1 of the LGIP per LGIA Article 24.3
180 Calendar Days prior to Initial Synchronization	Interconnection Customer	Provide initial specifications for Interconnection Customer's Interconnection Facilities per LGIA Article 5.10.1
90 Calendar Days prior to Initial Synchronization	Interconnection Customer	Provide final specifications for Interconnection Customer's Interconnection Facilities per LGIA Article 5.10.1
3 months prior to Initial Synchronization	Interconnection Customer	Provide notification of local Balancing Authority per LGIA Article 9.2
60 months following Project Initiation	IPC	Construction Complete
62 months following Project Initiation	IPC	Commissioning Complete Back feed power is available
5 days after switching request made to IPC Dispatch	Interconnection Customer	**In-Service Date** Switch at the POI can be closed to obtain back feed power
TBD	Interconnection Customer	**Initial Synchronization Date** Interconnection Customer Trial Operation begins
30 Calendar Days prior to COD	Interconnection Customer	Notify IPC of COD
Prior to COD	Interconnection Customer	Provide as-built or as-tested performance data that differs from the initial Large Generating Facility data requirements contained in Appendix 1 of the LGIP per LGIA Article 24.3
TBD	Interconnection Customer	**COD**
Within 30 Calendar Days following COD	Interconnection Customer	Submit completed Appendix E of the LGIA confirming completion of Trial Operation and COD
120 Calendar Days following COD	Interconnection Customer	Provide as-built drawings, information, and documents for Interconnection Customer's Interconnection Facilities per LGIA Article 5.11

Interconnection Customer has requested a Commercial Operation Date (COD) of December 1, 2026. IPC has developed the milestone dates in good faith considering many factors, including the requested COD, known long-lead times, the schedule of other in-progress projects, and the current suspension status of the Project. The estimated milestone schedule does not align with the requested COD.

IPC does not warrant or guarantee the foregoing estimated milestone dates, which are estimates only. These milestone dates assume, among other things, that materials can be timely procured, labor resources are available, and that outages to the existing transmission system are available to be scheduled. Additionally, there are several matters, such as permitting issues and the performance of subcontractors that are outside the control of IPC that could delay the estimated COD. For purposes of example only, federal, state, or local permitting, land division approval, identification of Interconnection Facilities location, access to proposed Interconnection Facilities location for survey and geotechnical investigation, coordination of design and construction with the Interconnection Customer, failure of IPC's vendors to timely perform services or deliver goods, and delays in payment from Interconnection Customer, may result in delays of any estimated milestone and the COD of the project. To the extent any of the foregoing are outside of the reasonable control of IPC, they shall be deemed Force Majeure events.

3. Operating Requirements

The Project is required to comply with the applicable Voltage and Current Distortion Limits found in IEEE Standard 519-2014 *IEEE Recommended Practices and requirements for harmonic Control in Electrical Power Systems* or any subsequent standards as they may be updated from time to time.

The Project will be subject to reductions directed by IPC Load Serving Operations during transmission system contingencies and other reliability events. When these conditions occur, the Project will be subject to Generator Output Limit Control (GOLC) and will have equipment capable of receiving an analog setpoint via DNP 3.0 from IPC for GOLC. GOLC will be accomplished with a setpoint and discrete output control from IPC to the Project indicating maximum output allowed. For more detail, see Appendix A.

Low Voltage Ride Through: The Project must be capable of riding through faults on adjacent sections of the power system without tripping due to low voltage. The Project must meet or exceed the Low Voltage Ride-Through requirements as set forth in NERC Standard PRC-024.

Frequency Response Requirements: The Project must be capable of providing Primary Frequency Response for both positive and negative frequency deviations from 60Hz (+/- 0.036 Hz) with a droop of up to 5% for Bulk Electric System disturbances. Provided the Project meets the above Primary Frequency Response requirements, IPC shall not curtail the Project when such curtailments are caused by a need to comply with applicable Frequency Response reliability standards.

Momentary Cessation Requirements: Momentary cessation should not be used within the voltage and frequency ride-through curves specified in PRC-024. Use of momentary cessation is not considered "ride through" within the "No Trip" zone curves of PRC-024. The use of momentary cessation should be eliminated to the extent possible consistent with NERC's *Reliability Guideline for BPS-Connected Inverter-Based Resource Performance*.

Interconnection Customer will be able to modify power plant facilities on the Interconnection Customer side of the POI only if 1) there is no impact upon the operation of the transmission or distribution system, 2) the generation facilities are electrically isolated from the system via disconnect switch [redacted], and 3) a terminal clearance is issued by IPC's Load Serving Operator.

4. Reactive Power

It is the Project's responsibility to provide reactive power capability to have a power factor operating range of at least 0.95 leading (absorbing) to at least 0.95 lagging (supplying) at the high side of the generator substation over the range of real power output up to maximum output of the project.

The Project must have equipment capable of receiving an analog setpoint, via DNP 3.0, from IPC for Voltage Control. IPC will issue an operating voltage schedule for the Project prior to the Project's In-Service Date. For more detail, see Appendix A.

5. Upgrades

5.1 Upgrades to the Distribution System

No distribution upgrades are required.

5.2 Network Upgrades to Substations

[redacted] Station

[redacted] Station will be converted from a ring bus configuration to a breaker and a half configuration to allow for a new [redacted] line terminal to be installed and the required relocation of the existing [redacted] line terminal. The reconfiguration will require a [redacted] expansion to the substation. The fencing, grading, and yard development are included as part of the substation expansion. No additional property purchase is anticipated to accommodate this [redacted] expansion.

Install [redacted] relay packages and add a [redacted] shelf in the existing control building. Install [redacted] protection packages with [redacted].

Install [redacted] power circuit breakers on precast foundations, [redacted] air-break switches on support structures with drilled pier foundations and [redacted] CCVTs on support structures with drilled pier foundations. A total of [redacted] support structures with associated foundations will be installed to support the new [redacted] bus work. [redacted] of surface trench is required to house the new control and communication wiring.

5.3 Network Upgrades to the Transmission System

[redacted] Transmission Line

Rebuild existing [redacted] structure, install [redacted] new steel dead-end structures, [redacted] tangent structures, and approximately [redacted] of new conductor to accommodate the re-termination of the existing [redacted] line. This re-termination will require a new BLM permit and easement, which could impact timelines.

[redacted] Line

Install [redacted] new steel dead-end structures and install approximately [redacted] of new conductor to accommodate the re-termination of the existing [redacted] line. This re-termination will require line crossing work.

6. Estimated Costs

The following good faith estimates are provided in 2024 dollars and are based on a number of assumptions and conditions. IPC does not warrant or guarantee the estimated costs in the table below, which are estimates only and are subject to change. Interconnection Customer will be responsible for all actual costs incurred in connection with the work to be performed by IPC and its agents, under the terms and subject to the conditions included in any LGIA executed by IPC and Interconnection Customer.

The estimated cost below is required to be paid in full by the Interconnection Customer, or other arrangements acceptable to IPC are made with IPC's Credit Department, prior to IPC commencing construction on the project.

Estimated Cost:

Description	Ownership	Cost Estimate*
IPC Interconnection Facilities:		
Facilities between the POCO and POI as described in Section 1.5	IPC	$732,439
Contingency 10%		$73,244
Overheads 3.5%		$28,199
Total		**$833,882**
Substation Network Upgrades:		
Upgrades to POI station as described in Section 5.2	IPC	$6,334,322
Contingency 10%		$633,432
Overheads 3.5%		$243,871
Total		**$7,211,626**
System Network Upgrades:		
Upgrades to Transmission System as described in Section 5.3	IPC	$1,945,568
Contingency 10%		$194,557
Overheads 3.5%		$74,904
Total		**$2,215,029**
	GRAND TOTAL	**$10,260,537**

Note Regarding Transmission Service:

This RFSR is a study of a request for Network Resource Interconnection Service (NRIS) as defined in Section 1 of IPC's LGIP. This RFSR identifies the facilities necessary to provide such service. NRIS in and of itself does not convey any right to transmission service or to deliver electricity to any specific customer or Point of Delivery.

Note Regarding LGIA:

This RFSR is a study and preliminary evaluation only and does not constitute, or form the basis of, a definitive agreement related to the matters described in this RFSR. Unless and until a LGIA amendment is executed by IPC and Interconnection Customer, no party will have any legal rights or obligations, express or implied, related to the subject matter of this RFSR.

Appendix A

Generation Interconnection Control Requirements

Interconnection Communications

All supervisory data points described in this Appendix A are to be communicated between Interconnection Customer and IPC via serial DNP3 protocol. The physical transport will be a single pair of fiber cables. An Interconnection Customer provided splice box housing a fiber termination panel will be accessible to both parties.

Interconnection Customer is responsible for this fiber connection from their PLC or other controls equipment to the fiber termination panel inside the demarcation box. IPC will connect their supervisory control system to the same termination panel.

Generator Output Limit Control

The Project will be subject to reductions directed by IPC Load Serving Operations during transmission system contingencies and other reliability events. When these conditions occur, the Project will be subject to Generator Output Limit Control (GOLC) and will have equipment capable of receiving an analog setpoint via DNP 3.0 from IPC for GOLC. GOLC will be accomplished with a setpoint and discrete output control from IPC to the Project indicating maximum output allowed.

IPC requires interconnected Projects to accept GOLC signals from IPC's energy management system (EMS) when they are connected to IPC's transmission system.

The GOLC signals will consist of four points shared between the IPC EMS (via the IPC RTU) and the Interconnection Customer Generator Controller (SGC). The IPC RTU will be the master, and the SGC will be the slave.

- **GOLC Setpoint:** An analog output that contains the MW value the Interconnection Customer should curtail to, should a GOLC request be made via the GOLC On/Off discrete output Control point.

- **GOLC Setpoint Feedback:** An analog input feedback point must be updated (to reflect the GOLC setpoint value) by the SGC upon the SGC's receipt of the GOLC setpoint change, with no intentional delay.

- **GOLC On/Off:** A discrete output (DO) control point with pulsing Trip/Close controls. Following a "GOLC On" control (DNP Control Code "Close/Pulse On"), the SGC will run power output back to the MW value specified in the GOLC Setpoint. Following a "GOLC Off" control (DNP Control Code "Trip/Pulse On"), Interconnection Customer is free to run to maximum possible output.

- **GOLC On/Off Feedback:** A discrete input (DI) feedback point must be updated (to reflect the last GOLC DO Control Code received) by the SGC upon the SGC's receipt of the GOLC DO control, with no intentional delay. The feedback DI should latch to an OFF state following the receipt of a "GOLC OFF" control and it should latch to an ON state following the receipt of an "GOLC ON" control.

If a GOLC control is issued, it is expected to see MW reductions start within 1 minute and plant output to be below the GOLC Setpoint value within 10 minutes.

Voltage Control

IPC requires interconnected Projects to accept voltage control signals from IPC's EMS when they are connected to IPC's transmission system.

The voltage control will consist of one setpoint and one feedback point shared between the IPC EMS and the SGC.

- **Voltage Control Setpoint:** An analog output that contains the voltage the Interconnection Customer should target for plant operation. This setpoint will have a valid control range between 0.95 and 1.05 per unit (p.u.) of nominal system voltage.

- **Voltage Control Setpoint Feedback:** An analog input feedback point must be updated (to reflect the Voltage Control Setpoint) by the SGC upon the SGC's receipt of the voltage setpoint change, with no intentional delay.

The control will always be active; there is no digital supervisory point like the GOLC On/Off control above.

The voltage control system should operate at the voltage indicated by the voltage control setpoint with an accuracy of +/- 0.5%.

Interconnection Customer should supervise this control by setting up "reasonability limits" (i.e., configure a reasonable range of values for this control to be valid). As an example, they will accept anything in the valid control range (between 0.95 and 1.05 p.u.) but reject values outside this range. If they were fed an erroneous value outside the valid range, their control system would default to the last known, good value.

Frequency Response Control

IPC requires transmission-interconnected Projects to accept frequency response signals from IPC's EMS when they are connected to IPC's transmission system.

The frequency response will consist of one setpoint and one feedback point shared between the IPC EMS and the SGC.

- **Frequency Response Off/On:** A discrete output (DO) control point with pulsing Trip/Close controls. Following a "Frequency Response On" control (DNP Control Code "Close/Pulse On"), the SGC will reduce maximum power output to 95% of value in Maximum Park Generating Capacity data point. Following a "Frequency Response Off" control (DNP Control Code "Trip/Pulse On"), Interconnection Customer is free to run to maximum possible output.

- **Frequency Response Off/On Feedback:** A discrete input (DI) feedback point must be updated (to reflect the last Frequency Response DO Control Code received) by the SGC upon the SGC's receipt of the Frequency Response DO control, with no intentional delay. The feedback DI should latch to an OFF state following the receipt of a "Frequency Response OFF" control and it should latch to an ON state following the receipt of an "Frequency Response ON" control.

Auxiliary Data Points

Additional status points relating to local weather, equipment, and other supervisory information is required in accordance with the following Generation Interconnection Supervisory Data Table. This table includes a comprehensive list of data points to be sent and received via the fiber connection described in the Interconnection Communications portion of this Generation Interconnection Supervisory Data Requirements section.

Transmission-Interconnected Non-Wind Generation Interconnection Supervisory Data

Digital Inputs to IPC (DNP Obj. 01, Var. 2)			
Index	Description	State (0/1)	Comments:
0	GOLC Off/On (Control Feedback)	Off/On	Feedback provided by Interconnection Customer
1	FREQUENCY RESPONSE OFF/ON (Control Feedback)	Off/On	Feedback provided by Interconnection Customer
2	52A Interconnection Customer Main Breaker (if present)	Open/Closed	Sourced at substation
3	52A Interconnection Customer Capacitor Breaker (if present)	Open/Closed	Sourced at substation

Digital Outputs to Interconnection Customer (DNP Obj. 12, Var. 1)		
Index	Description	Comments:
0	GOLC Off/On	Control issued by IPC
1	Frequency Response Off/On	Control issued by IPC
2	EMS COMM Off/On	Control issued by IPC

Analog Inputs to IPC (DNP Obj. 30, Var. 2)							
Index	Description	Raw High	Raw Low	EU High	EU Low	EU Units	Comments:
0	GOLC Setpoint Value Received (Feedback)	32767	-32768	TBD	TBD	MW	Provided by Interconnection Customer
1	Voltage Control Setpoint Value Rec'd (Feedback)	32767	-32768	TBD	TBD	kV	Provided by Interconnection Customer
2	Maximum Park Generating Capacity	32767	-32768	TBD	TBD	MW	Provided by Interconnection Customer
3	Ambient Temperature	32767	-32768	327.67	-327.68	DEG C	Provided by Interconnection Customer

Analog Inputs to IPC (DNP Obj. 30, Var. 2)							
Index	Description	Raw High	Raw Low	EU High	EU Low	EU Units	Comments:
4	Wind Direction	32767	-32768	327.67	-327.68	Deg from North	Provided by Interconnection Customer
5	Wind Speed	32767	-32768	327.67	-327.68	M/S	Provided by Interconnection Customer
6	Relative Humidity	32767	-32768	TBD	TBD	%	Provided by Interconnection Customer
7	Global Horizontal Irradiance	32767	-32768	TBD	TBD	W/M^2	Provided by Interconnection Customer
8	Plane of Array Irradiance	32767	-32768	TBD	TBD	W/M^2	Provided by Interconnection Customer
9	SPARE						
10	SPARE						
11	SPARE						
12	SPARE						
13	SPARE						
14	SPARE						
15	SPARE						
16	SPARE						
17	SPARE						

Analog Outputs to Interconnection Customer (DNP Obj. 41, Var. 2)							
Index	Description	Raw High	Raw Low	EU High	EU Low	EU Units	Comments:
0	GOLC Setpoint	32767	-32768	TBD	TBD	MW	Control issued by IPC
1	Voltage Control Setpoint	32767	-32768	TBD	TBD	kV	Control issued by IPC
2	SPARE						
3	SPARE						
4	SPARE						
5	SPARE						

Analog Outputs to Interconnection Customer (DNP Obj. 41, Var. 2)							
Index	Description	Raw High	Raw Low	EU High	EU Low	EU Units	Comments:
6	SPARE						
7	SPARE						
8	SPARE						
9	SPARE						

Appendix B

The following tables B1 and B2 include a summary of the GI #605 contingent Network Upgrades and Transmission Provider planned system improvement required to be in service prior to the Project's interconnection, as detailed in the GI #605 System Impact Restudy Report dated July 26, 2024.

Note that the Project is contingent upon upgrades associated with the senior-queued project GI #530 (also identified in GI #567 and GI #588), which are required to be completed prior to the Project's interconnection. The construction of the contingent facility upgrades identified for GI #530, GI #567, and GI #588 have been advanced for senior-queued project #567. Due to this advancement, the contingent facility upgrades are expected to be completed in March 2025 and are not available to be further advanced as of the date of this RFSR.

Table B1: GI #605 contingent facilities associated with GI #530/567/588 required for interconnection

Contingent Facility	Estimated Date
[redacted] loop into [redacted]	March 2025
[redacted] loop into [redacted]	March 2025

Table B2: GI #605 contingent Transmission Provider planned system improvements required for interconnection

Transmission Provider planned system improvement	Estimated Date
[redacted] line	2027
[redacted] line	2028
[redacted] substation	2028