Generator Interconnection Facilities Restudy Report

for the

149 MW [redacted] Project

for

[redacted]

in

Elmore County, Idaho

August 26, 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] #636 (the Project), would require a System Impact Restudy (RSIS) and Interconnection Facilities Restudy (RFS) be performed. This RFSR provides the results of the required RFS performed for the integration of the proposed 149 MW Project.

[redacted] (Interconnection Customer) has stated that the proposed project will consist of a [redacted] MVA solar photovoltaic system and connect to a new [redacted] station on IPC's Danskin–Hubbard 230kV transmission line in Elmore County, Idaho at approximately [redacted]. The total project output as studied is 149 MW.

Contact Information for Interconnection Customer is as follows:

[redacted]

[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 149 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 a 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 #588, GI #590, GI #624/625, GI #632, GI #633, and GI #635) 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 #588, GI #590, GI #624/625, GI #632, GI #633, and GI #635 were assumed to be completed prior to the interconnection of the Project.

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

- Boardman to Hemingway 500kV transmission line (Q2 2027)
- 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 (2025)
- Gateway West Segment 8 (2028)
- Mayfield 500/230kV Substation (2028)

There are identified contingent facility upgrades for GI #530 (also identified in GI projects #567, #588, and #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 D.

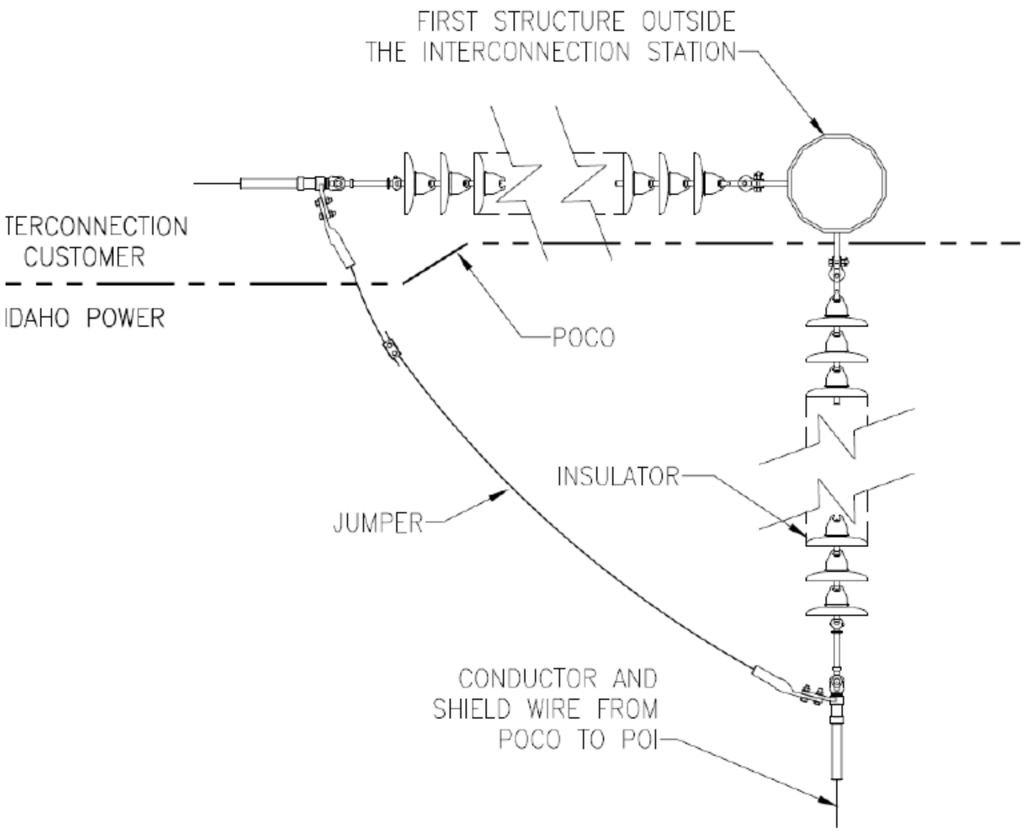
For the above and other reasons, the cost estimates included in this RFSR are estimates only, are based on currently known or assumed facts that may not be accurate or materialize, and are subject to change.

1.1 Interconnection Point

The Interconnection Facilities are located in IPC's [redacted] region in Township [redacted], Range [redacted] and Section [redacted]. The Point of Interconnection (POI) for the Project will be at the new GI 636 interconnection station on IPC's side of air-break switch [redacted], where the bus connects between air-break switches [redacted] and [redacted]. A drawing identifying the POI is attached as Exhibit 1.

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 the 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 a 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 Facilities

1.3.1 Interconnection Customer's Interconnection Facilities

Interconnection Customer's Interconnection Facilities are located approximately [redacted] away from IPC's Interconnection Facilities. Interconnection Customer will install disconnect switches, distribution collector system, transformers, controllers, appropriate grounding measures, and associated auxiliary equipment. The main step-up transformer is a [redacted] transformer should provide an adequate ground return path for transmission line protection/relaying. Interconnection Customer will build facilities to the POCO.

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 Provider's Interconnection Facilities. Interconnection Customer is responsible to mirror IPC's System Protection to include dual SEL-411L installation for protection of the interconnection intertie. 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 POI.

1.3.2 Generating Facilities

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

1. The photovoltaic inverter system will comprise of [redacted] inverters.
2. 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 POI.

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.

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 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 new GI 636 interconnection station 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

As part of IPC's Interconnection Facilities, the Project will require a new [redacted] GI 636 interconnection station to be constructed to interconnect Interconnection Customer's transmission line (gen-tie line) and the existing Danskin–Hubbard 230kV transmission line. It is preferred that Interconnection Customer acquire the approximately [redacted] of new land and then transfer it to IPC in accordance with the land transaction document requirements listed in this section. Interconnection Customer may request that IPC procure the land, in which case, the milestone schedule is also subject to change. Regardless of whether Interconnection Customer or IPC procure the land, Interconnection Customer will be responsible for all expense related to the land procurement consistent with Article 5.13 of the LGIA. Cost of the land is not included in the estimate provided in this report.

IPC's Interconnection Facilities will be owned and maintained by IPC. Interconnection Customer, at its sole cost and expense, will provide to IPC documents and services as identified in this section relating to IPC's land rights required for IPC's Interconnection Facilities:

1.4.5.1 Land Transaction Documents

Land Transaction Documents in a form approved by IPC that may include, but are not limited to, the following:

- Right of Entry Agreement
- Fee Ownership Parcel conveyance pursuant to a Warranty Deed
- Purchase and Sale Agreement
- Access Easement
- Easements for distribution service lines, major distribution power lines, and transmission power lines and related ancillary facilities as determined necessary by IPC at IPC's sole discretion, to support the interconnection facility and Interconnection Customer's development
- Completed Applications with respective fees for Release of Easements and/or Crossing Agreements that may be required for the Project
- Crossing Agreements
- Any other Project specific documents deemed necessary by IPC

IPC review and approval of the Land Transaction Documents may require six to nine months. Interconnection Customer is advised to provide all required Land Transaction Documents at the earliest possible time. Refer to Appendices B and C for a complete reference guide to IPC's Corporate Real Estate Fee Acquisition and/or Easement Parcel requirements.

Upon IPC approval of all Land Transaction Documents, IPC will provide Interconnection Customer final form documents for signature by the land owner of record. Interconnection Customer shall return the original signed and recorded Land Transaction Documents to IPC. All recording and mailing fees shall be paid by

Interconnection Customer. IPC shall provide to Interconnection Customer electronic copies of all fully executed and recorded Land Transaction documents.

1.4.6 Site Work

Interconnection Customer will provide property, property access and site plan for IPC's new GI 636 interconnection station. IPC will perform land clearing and grading for IPC's interconnection station.

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 the new GI 636 interconnection station, they are required to supply their own communications circuit.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 the 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 GIA.

1.5 IPC's Interconnection Facilities

Transmission Provider's Interconnection Facilities are referred to hereafter as "IPC's Interconnection Facilities." To allow the Interconnection Customer to interconnect the Project, IPC will install at the new GI 636 interconnection station the last span of the Project's gen-tie line, including insulators, conductor, shield wire, and associated hardware; one (1) [redacted] meter; one (1) dead-end structure; [redacted] air-break switch; [redacted] CTs; required foundations; bus; bus supports; and fiber communication equipment. 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 below 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 this Study by the date(s) specified below may result in the loss of milestone dates and construction schedules set forth below. In the event that the Interconnection Customer is unable to meet dates as outlined below, Interconnection Customer may request suspension of up to three (3) years pursuant to section 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 below shall be likewise suspended. Estimated milestones, which may be updated and revised for inclusion in the LGIA in light of subsequent developments and conditions, are as follows:

Estimated Date	Responsible Party	Milestone
March 13, 2024	Interconnection Customer	**LGIA Execution**
March 28, 2024	Interconnection Customer	**Project Initiation** IPC received all of the following: • Demonstration of continued Site Control • Construction funding or arrangements acceptable to IPC were 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 engineering, procurement, and construction
October 2024	Interconnection Customer	**LGIA Amendment Execution**

Estimated Date	Responsible Party	Milestone
10 months following Project Initiation	Interconnection Customer	**Land Procurement** Transmission Provider's Interconnection Facilities location identified, and Land Transaction Documents executed
March 2025	IPC	Contingent facilities associated with GI #530/567/588/604 complete (see Appendix D, Table D1)
24 months following Land Procurement	IPC	Engineering and Design complete
30 months following Land Procurement	IPC	Long Lead Material procured/received
30 months following Land Procurement	Interconnection Customer	Easements and permits procured for IPC site; construction will not begin until easements and permits are in place Detailed in Appendix C attached
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 Trial Operation	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 the Interconnection Customer's Interconnection Facility per LGIA Article 5.10.1
90 Calendar Days prior to Initial Synchronization	Interconnection Customer	Provide final specifications for the Interconnection Customer's Interconnection Facility 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
38–48 months following Land Procurement, depending on permitting	IPC	Construction Complete
39 months following Land Procurement	IPC	Commissioning Complete Back feed power is available
July 2028	IPC	Contingent [redacted] ine transmission provider planned improvement for interconnection complete (see Appendix D, Table D2)
2029	IPC	All Transmission Provider planned system improvements completed including [redacted] transmission line and contingent [redacted] Station Transmission Provider planned system improvement complete. (see Appendix D, Table D2)

Estimated Date	Responsible Party	Milestone
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 Facility per LGIA Article 5.11

Interconnection Customer has requested a Commercial Operation Date (COD) of 11/3/2027. The above milestone schedule does not align with the requested COD; however, IPC has developed the above milestone dates in good faith considering many factors, including the requested COD, known long-lead times, and the schedule of other in-progress projects. 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. Generator Output Limit Control 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 interconnection projects must meet or exceed the Low Voltage Ride-Through requirements as set forth in NERC Standard PRC-024.

Frequency Response Requirements: Generator 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 that Generator meets the above Primary Frequency Response requirements, IPC shall not curtail Interconnection Customer when such curtailments are caused by a need to comply with applicable Frequency Responsive 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 Point of Change of Ownership with no impact upon the operation of the transmission or distribution system whenever the generation facilities are electrically isolated from the system via the air-break switch [redacted], and a terminal clearance is issued by IPC's Load Serving Operations.

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 Distribution System

New overhead distribution line will consist of [redacted] of conductor supported by [redacted] poles with [redacted]-foot spans.

5.2 Network Upgrades to Substations

The new GI 636 Interconnection Station will consist of a four-position [redacted] ring bus to accommodate the addition of a new line terminal to connect the Interconnection Customer's new GI 636 [redacted] gen-tie line and IPC's existing [redacted] Transmission Line. The new yard will include [redacted] line bays, with [redacted] steel dead-end structures, [redacted] circuit breakers, [redacted] air-break switches, [redacted] CCVTs, and a [redacted] control building. Associated bus supports, foundations, relaying, communications, and control equipment will be installed in the station yard and building. The station yard will be a [redacted] pad with two entrance gates and concrete driveway aprons, which requires the need for land to be purchased. This construction is all contingent upon the successful purchase of property. Cost of the land not included in the estimate.

5.3 Network Upgrades to Transmission System

New GI 636 Interconnection Station

To accommodate the transmission line rebuilds identified in Section 5.3 of this RFSR, [redacted] single-pole steel dead-end structures will be installed in the GI 636 POI station, and the rebuild lines will continue into the station with [redacted] conductor and 96-count OPGW.

[redacted] **Transmission Line Rebuild**

Rebuild [redacted] miles of the existing [redacted] from the new GI 636 POI station to the [redacted] Station with [redacted] conductor, 96-count OPGW, and [redacted] shield wire. Transmission line will be designed steel H-frame structures for tangents and will include [redacted] three-pole designed steel guyed dead-ends/running angles with all structures direct embedded.

[redacted] **Transmission Line Rebuild**

Rebuild [redacted] miles of the existing [redacted] from [redacted] to [redacted] with [redacted] conductor and 96-count OPGW. The first [redacted] miles of the line from [redacted] is single-pole construction, and the remaining [redacted] miles is H-frame.

All cost and schedule milestones associated with both transmission line rebuilds are contingent on obtaining required permits and easements.

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. Overhead costs cover the indirect costs associated with the Project and may vary from time to time.

The estimated cost below is required to be paid in full by 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 Point of Change of Ownership and Point of Interconnection as described in Section 1.5	IPC	$743,703
Contingency 10%		$74,370
Overheads 3.5%		$28,633
TOTAL		$846,706
Upgrades to IPC Distribution System		
New station distribution feed as described in Section 5.1	IPC	$372,534
Contingency 10%		$37,253
Overheads 10.5%		$43,028
TOTAL		$452,815
Network Upgrades to IPC Substation		
Upgrades at New Station as described in Section 5.2	IPC	$7,163,952
Contingency 10%		$716,395
Overheads 3.5%		$275,812
TOTAL		$8,156,159
Network Upgrades to IPC Transmission System		
New Transmission structures, lines and OPGW as described in Section 5.3	IPC	$20,557,038
Contingency 10%		$2,055,704
Overheads 3.5%		$791,446
TOTAL		$23,404,188
GRAND TOTAL	**$32,859,868**	

Note Regarding Transmission Service:

This RFSR is a study of a request for Network Resource Interconnection Service. This RFSR identifies the facilities necessary to provide such service. Network Resource Interconnection Service 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 an 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 Supervisory Data 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. A demarcation 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

IPC Survey Requirements

- ❑ Is the Grantor’s Deed Instrument No. noted in the Exhibit ‘A’ Legal Description or Exhibit ‘B’ Survey Map?
- ❑ Are the Section, Township, Range, and County information clearly stated on the Exhibits?
- ❑ Is the Basis of Bearings between found monuments called out and noted on the Exhibits?
- ❑ Are the Point of Commencement, Point of Beginning and or Point of Terminus shown on the Exhibits?
- ❑ Do all lines have a bearing and distance associated with them on the Exhibits?
- ❑ All lines need bounding calls to Grantor’s ownership lines, Rights-of-Way, etc. in Exhibit A.
- ❑ Are the Subdivision names, lot & block, and streets labeled on the Exhibit B?
- ❑ Are any existing Utility Easements adjoining this Easement called out and shown on the Exhibits?
- ❑ Is the map scale noted and is there a North arrow shown on the Exhibit B?
- ❑ On a strip easement is the width given and does it call to form a closed figure in the Exhibit A?
- ❑ Does the Parcel description close?
- ❑ Are the reference surveys of record or CP&Fs used to prepare the easement called out and shown on the Exhibits?
- ❑ A Professional Land Surveyor or Engineer in responsible charge must stamp, sign and date the exhibits for submission.
- ❑ A copy of the current Deed of Record for the Grantor is needed for submission.

Appendix C

Idaho Power Company – Corporate Real Estate Department

Fee Parcel Acquisition Requirements for Developers

Idaho Power Company
Corporate Real Estate Department
Requirements of Developers for Interconnection Facility/Substation Land for Development of Idaho Power Company Interconnection Facilities
Fee Acquisition

Allow a minimum of six months' time frame for land transaction portion of the project – may be longer depending on project specifics.

1. **Project Map/Site Plan.** If required a 90% complete informational map or site plan of the Project Property with locations of all easements to be released, new easements proposed for both Interconnection Customer and IPC, existing IPC lines to be crossed by Interconnection Customer's facilities, Interconnection Customer's lease and easement areas (if any), access roads, and any other features or elements requested to be included by IPC to facilitate review and processing of the project documents

2. **Right of Entry Agreement**. A Right-of-Entry Agreement will allow Idaho Power to conduct necessary studies and review of the property and substation lands to determine feasibility for development. This document is required to be signed by the underlying property owner as soon as possible and will allow the preliminary stages of project development to commence pending completion of the transfer of substation lands to Idaho Power.

3. **Purchase and Sale Agreement – Warranty Deed – Access Easement – Power Line Easements**. Idaho Power requires the substation land be provided in a form of fee ownership acceptable to Idaho Power. A Purchase and Sale Agreement provides the terms for the fee ownership transaction. The Purchase and Sale Agreement includes a Warranty Deed for the transfer of the substation land to Idaho Power, a form of Access Easement for access to the substation land, and forms of transmission and distribution easements.

4. **Land Division (if needed)**. Should a division of land be necessary to create a new Fee Ownership Parcel, Interconnection Customer shall submit application to the proper local jurisdiction and complete all requirements to finalize the creation of a new Fee Ownership Parcel in IPC's name. Interconnection Customer shall provide final approval documentation to IPC.

5. **Title Insurance**. Title report and American Land Title Association (A.L.T.A.) extended owners' pro forma policy of title insurance for the amount of the value of the Fee Ownership Parcel and access easement areas. Interconnection Customer shall provide proof and information to establish the value of the property to be insured. IPC will review the title policy pro forma and will advise of any necessary title mitigation measures to ensure clear and unencumbered title to the Fee Ownership Parcel and access easement areas. Title mitigation measures shall be performed by Interconnection Customer at Interconnection Customer's sole cost and expense. Title policy to include endorsements as required by IPC at Interconnection Customer's sole cost

and expense. Interconnection Customer to provide an electronic copy of all exceptions to title insurance for IPC review. Interconnection Customer to provide Idaho Power with a final A.L.T.A. extended owners' policy of title insurance.

6. **Survey**. An A.L.T.A. survey of the Project property with all existing IPC easement rights and facilities identified. The A.L.T.A. survey shall include and identify all proposed land transaction areas. Interconnection Customer shall provide an A.L.T.A. survey of the Fee Ownership Parcel to be conveyed to IPC and all Land Transactions.

7. **Surveyed Legal Descriptions and Maps**. Written legal description and map for each Land Transaction Document, stamped and signed by a licensed surveyor. Each legal description and map are to be submitted to and approved by IPC's surveyor. See IPC survey requirements in Appendix B, attached hereto and made a part hereof.

8. **Phase I Environmental Analysis**. A Phase I environmental analysis (Phase I EA) of Interconnection Customer's Project property (whether fee-owned, leased, or on an easement premises) for IPC review. The Phase I EA shall provide a map indicating the location of the IPC Interconnection Facilities in relation to any identified areas of concern. Interconnection Customer shall provide a Phase 1 EA in IPC's name with warranties for IPC.

9. **Public Lands Permits or Authorizations (if needed)**. Should any agency lands, rights-of-way, etc. be affected by the granting of land and easement rights to Idaho Power, Developer shall be responsible to any secure necessary agency authorizations or permits in Idaho Power's name, at Developer's sole cost and expense. Developer shall be responsible to ensure all conditions of approval are satisfied, fees are paid, etc.

10. **Land Use Permits or Authorizations**. The Interconnection Customer shall secure all necessary local jurisdiction, state, and/or federal land use authorizations and permits, including conditional use permits, for the IPC Interconnection Facilities, access road, new transmission and distribution lines, buildings, and all facilities in support of Interconnection Customer's Project, as required by local, state or federal entities. A copy of each authorization pertaining to IPC facilities shall be provided to IPC.

11. **Costs**. Any costs pertaining to the above items shall be at the Developer's sole cost and expense.

12. **Miscellaneous Documents.** Other miscellaneous documents as necessary for the project – such as Memorandums of Agreement/Understanding, etc.

Appendix D

Contingent Facilities

The following tables D1 and D2 include a summary of the GI #636 contingent Network Upgrades and Transmission Provider planned system improvements required to be in service prior to the Project's interconnection, as detailed in the GI #636 System Impact Restudy Report dated May 24, 2024.

Note that the Project is contingent upon upgrades associated with the senior-queued project GI #530 (also identified in GI projects #567, #588, and #604), which are required to be completed prior to the Project's interconnection. The construction of the contingent facility upgrades identified for GI projects #530, #567, #588, and #604 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 D1: GI #636 contingent facilities associated with GI #530/567/588/604 required for interconnection

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

Table D2: GI #636 contingent Transmission Provider planned system improvements required for interconnection

Transmission Provider planned system improvement	**Estimated Date**
New [redacted] line	July 2028
[redacted] Station	2029