6/16/2017
[redacted]

Re: Final Facility Study Report for [redacted] – Generation Integration #519

Dear [redacted]:

Idaho Power Company (IPC) has completed the facility study cost estimate for your Generator Interconnection project (Project). Attached please find a draft Interconnection Facility Study Report (FSR), which describes the facilities that would need to be installed by IPC to provide an interconnection with your Project (Interconnection Facilities).

In order to proceed with IPC's interconnection work for your Project, please provide your comments to the draft FSR to me by June 26, 2017 and indicate whether you wish to proceed with final design and construction of IPC's Interconnection Facilities for your Project. The final FSR will be used to prepare a draft Generator Interconnection Agreement (GIA) in preparation for IPC's construction of the Interconnection Facilities.

Before we can begin construction or order materials for the Interconnection Facilities, the GIA must be executed and payment received for the estimated cost identified within the GIA in full. Alternatively, you may contact IPC's credit department ([redacted]) to discuss credit requirements for construction funding for the Interconnection Facilities. Once we have an executed GIA, issued Notice to Proceed and receive funding or the credit requirement is met, we can proceed with construction of the Interconnection Facilities for your Project.

The actual construction and labor charges will be finalized approximately 90 days subsequent to completion of the Interconnection Facilities. We will reconcile any over- or underpayment at that time.

I look forward to hearing from you.

Sincerely,

[redacted]
Project Leader

Attachment: [redacted] Project Draft Facility Study Report with Drawings
Cc: [redacted]s/IPC [redacted]/IPC [redacted]/IPC [redacted]/IPC [redacted]/IPC

Generator Interconnection
Final Facility Study Report

for the

[redacted] **Project [519]**

for

[redacted]

in

Baker County, Oregon

6/16/2017

FINAL FACILITY STUDY REPORT (FSR)

[redacted]

Project Generator Queue #519

6/16/2017

1. General Facility Description

[redacted] (Seller) has stated that the proposed project will consist of a solar photovoltaic array to be located in Baker County, Oregon. The solar generation is to connect to the 69 kV system on Idaho Power Company (IPC)'s [redacted] ([redacted]) – [redacted] ([redacted]) line. The total project output as studied is 15 MW.

Contact Information for Seller is as follows:

[redacted]

A Standard Generator Interconnection Agreement (the "GIA") under IPC's Open Access Transmission Tariff (OATT) or Schedule 72 between Seller and IPC – Delivery (Transmission Owner) for the [redacted] Project, specifically Generator Interconnection Project # 519, will be prepared for this project. The GIA will be a definitive agreement that contains terms and conditions that supersedes this FSR.

If an earlier queue project that is responsible for providing additional sub-transmission capacity should drop out of the queue, a later queue project that may have been relying on at least a portion of any "surplus" capacity may then be faced with additional project costs for sub-transmission capacity additions of their own. As of the date of this report, there are no projects in the queue ahead of [redacted] for which costs related to sub-transmission capacity upgrades or additions could be passed on to [redacted] should changes be made to their queue position or generation output. For this and other reasons, the cost estimates included in this FSR 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 Point of Interconnection for [redacted] is in IPC's Western region and is located at [redacted], [redacted], approximately [redacted] mile [redacted] of the Project, a drawing identifying the Point of Interconnection is attached as Exhibit 1 on page 14.

1.2 Point of Change of Ownership

The Point of Change of Ownership for the [redacted] Project will be the spade located on the Seller's side of the [redacted] disconnect switch.

1.3 Seller's Interconnection Facilities

The Seller's Interconnection Facilities are located adjacent to IPC's Interconnection. The Seller will install generators, disconnect switches, distribution collector system, transformers, appropriate grounding measures, and associated auxiliary equipment. Seller will build a 69kV connection between the Project and the Point of Change of Ownership including the line termination apparatus.

The Seller's photovoltaic system will be constructed as follows:

1. The inverter system will comprise of fifteen [redacted] central Inverters with 234 solar panel strings per inverter, with each inverter having an apparent power rating of 1100 KVA.
2. Each of the 15 central inverters will feed a 1200 KVA transformer with a 385 V grounded-wye to 69 kV grounded-wye rating. A grounded-wye delta grounding transformer on the plant 69 kV bus will be used as a source of ground current for line relaying. This transformer will be appropriately sized for the application including for short duration ground current for a fault close in to the plant as well as for longer duration ground current for a fault more distant from the plant.
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.

1.4 Other Facilities Provided by Seller

1.4.1 Telecommunications

In addition to communication circuits that may be needed by the Seller, the Seller shall provide the following communication circuits for IPC's use**. It is the Seller's responsibility to provide the following communication circuits for IPC's use. These circuits can be long-lead items and typically require coordination with third party telecommunications providers. The project's in-service date cannot be granted prior to complete circuit acceptance and testing as referenced below.**

1. One POTS (Plain Old Telephone Service meeting the technical requirements of TR-NWT-000335:1993; NCI code 02LS2-2wire, loop start, 600 ohm) dial-up

circuit for querying the revenue meter and protection relay at the generation interconnect site. The POTS line must be capable of supporting reliable sustained data communication at a minimum of 4800 bps with a modem using V.32bis modulation. If the minimum data rate is or becomes unattainable or unreliable, Seller will be responsible for the circuit repair.

2. One DDS (Digital Data Service meeting the technical requirements of TR-NWT-000341:1993; NCI code 04DU5.19, or 04DU5.56) data circuit, with a guaranteed minimum data rate of 19,200 bits per second, for SCADA between the generation interconnection site demarcation and IPC's EMS FEP, located at [redacted]. No Seller equipment may be located at IPC FEP location. Please note that Frame Relay Service is not acceptable. If the minimum data rate is or becomes unattainable or unreliable, Seller will be responsible for the circuit repair.

3. One DDS (Digital Data Service meeting the technical requirements of TR-NWT-000341:1993; NCI code 04DU5.19, or 04DU5.56) data circuit, with a guaranteed minimum data rate of 19,200 bits per second, for the required Phasor Measurement Unit (PMU) between the generation interconnection site demarcation and IPC's EMS FEP, located at [redacted]. No Seller equipment may be located at IPC FEP location. Please note that Frame Relay Service is not acceptable. If the minimum data rate is or becomes unattainable or unreliable, Seller will be responsible for the circuit repair.

The Seller shall provide all the required communications circuits between the Interconnection site and IPC's operations points (i.e. IPC FEP location, etc.) as specified by IPC.

RELIABILITY AND DATA SECURITY: The communication circuits shall be DC powered at the terminus locations and within any telecommunications provider's network, such that they will continue operation during a power outage for a minimum of 4 hours, and meet the specified reliability and bandwidth requirements. At distribution connected generation interconnect sites, the Seller is responsible for supplying stable metered AC power during circuit testing and commissioning, and battery backed DC power during operation. At transmission connected generation interconnect sites, IPC can extend its station battery to a circuit marshalling location in a shared access portion of the station yard if needed for Seller telecommunications equipment used only to deliver IPC required circuits, but the Seller is responsible for any required AC local service required by their equipment at their station or in the shared access portion of the station yard. The Seller may choose to coordinate with a third-party communications provider to provide the communications circuits and pay the provider's associated one time setup and periodic charges, deliver the circuits using their own infrastructure, or a combination thereof. Regardless of circuit transport implementation, in all cases the SCADA circuit must be transported using solely Layer 2 protocols (e.g. serial point-to-point data communication, no routable Layer 3 transport, such as Internet Protocol).

CIRCUIT ACCEPTANCE AND TESTING: The communication circuits shall be terminated in an approved demarcation box with the cable pairs punched down on a telecom block and labeled accordingly at a location approved by IPC. The communication circuits will need to be installed and tested by the Seller prior to IPC

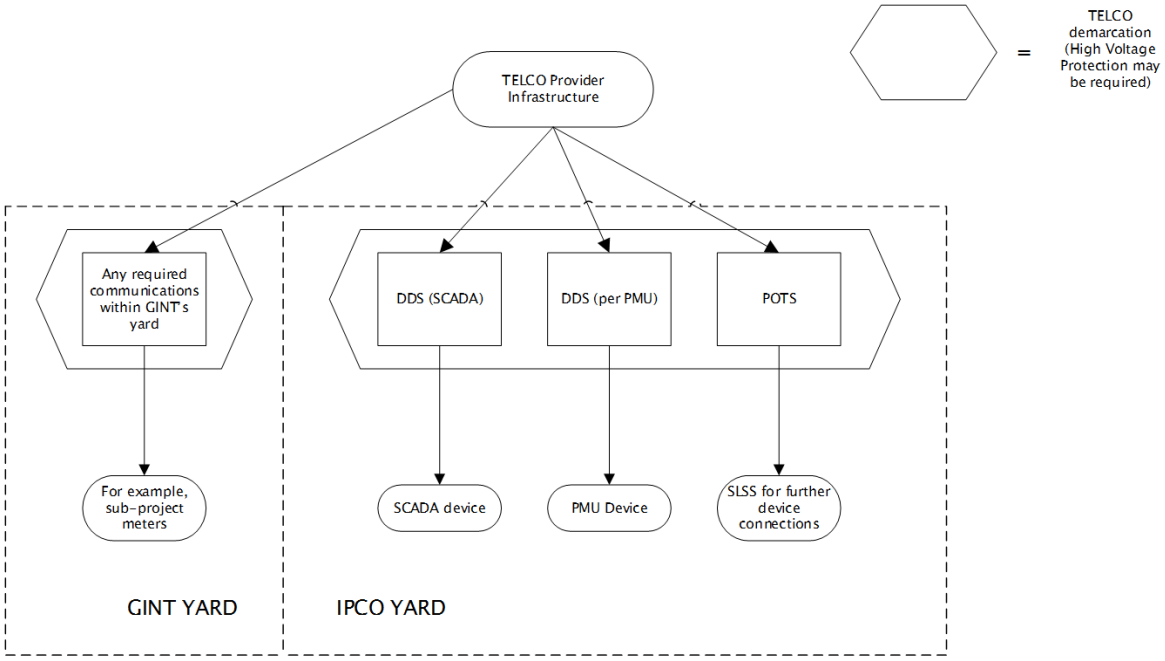
acceptance testing, and operational prior to the Seller being allowed to generate power into IPC's system. IPC will perform acceptance testing of DDS circuits with industry standard test patterns, namely: 2047, DDS1, DDS2, DDS3, DDS4, and DDS6, each tested to meet the performance of Qwest Techpub 77312, followed by end-to-end serial data BERT testing with a 2047 test pattern at 19.2kbps and require 15 consecutive minutes error free operation to pass. IPC will perform acceptance testing of modem serial data over the POTS line with BERT testing using a 2047 test pattern at 4800bps using V.32bis modem modulation will require 15 consecutive minutes of error free operation to pass. Circuits with demonstrated reliability issues during commissioning will be required to demonstrate 24 hours of reliable service by the Seller prior to final acceptance testing by IPC. Note that installation by a third-party communications provider may take several months and these services should be ordered well in advance to avoid delaying the project.

The Seller or their third party communications provider may need to install communications equipment (i.e. batteries, multiplexers, etc) near each terminus of the required communications circuits. If this equipment is required, the Seller shall be responsible to install this equipment in locations that are not owned or operated by IPC. If high voltage protection is required by the communications provider for the incoming copper cable, the high voltage protection assembly shall be engineered, supplied, and maintained by the Seller.

OPERATIONAL RESPONSE:
Seller's failure to maintain and/or restore and repair intermittent or non-operational telecommunications circuits may result in disconnection of Seller's generation facility/facilities until the circuits successfully complete Idaho Power's end-to-end testing.

The Seller is responsible for repairing any circuits and contacting any third-party telecom provider as needed. [Note: IPC cannot contact third party telecom providers on behalf of the Seller for circuit outages.] A third-party telecom provider is expected to have the ability to perform some level of remote circuit testing. If the Seller's third party telecom provider needs access to IPC facilities, they will contact IPC per contacts in GIA.

The leased services required by IPC are to be kept separate from any communication services required by the Seller. This includes the location where services are handed off from the telecom provider to IPC, also known as the TELCO demarcation. Under no circumstances will any service delivered to IPC's TELCO demarcation be extended beyond the IPC yard ground grid. If the Seller requires their own leased services, they must be provided through a separate TELCO demarcation, as noted below.



1.4.2 Ground Fault Equipment

The Seller will install transformer configurations that will provide a ground source to the transmission system.

1.4.3 Easements

The Seller, at its sole cost and expense, will provide to IPC a surveyed (Metes & Bounds) legal description (along with exhibit map of IPC's interconnection site), stamped and signed by a licensed Professional Land Surveyor, to be provided by Seller at its sole cost and expense. Seller shall also provide IPC a copy of the current deed showing ownership of the lands crossed by the Easements by the grantor of the Easements. After the legal description for the Easements has been delivered by the Seller to IPC for review and approval, IPC will supply to the Seller for signature by the land owner of record. Once the signatures have been secured, the Seller shall return the original signed Easements to IPC for recording.

1.4.4 Generator Output Limit Control

The Seller will install equipment to receive signals from IPC Grid 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 Interconnection Station and the Project.

1.4.5 Local Service

The Seller is responsible to arrange for local service to their site, as necessary.

1.4.6 Property

The Seller, at its sole cost and expense, will provide to IPC documents and services as identified below relating to IPC's land rights required for its interconnection facilities:

1.4.6.1 Land Transaction Documents. 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;
- Interconnection Facility Easement OR fee ownership parcel ("Fee Ownership Parcel") conveyance pursuant to a Warranty Deed. IPC shall determine whether an Interconnection Facility Easement or a Fee Ownership Parcel is required for the Project and shall advise Seller, accordingly;
- For Fee Ownership Parcels, a Purchase and Sale Agreement;
- Access Easement;
- Completed Applications with respective fees for Release of Easements and/or Crossing Agreements that may be required for the Project;
- Crossing Agreements; and
- Any other Project specific documents deemed necessary by IPC.

1.4.6.2 Project Map/Site Plan. 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 Seller and IPC, existing IPC lines to be crossed by Seller's facilities, Seller'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.

1.4.6.3 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 is to be submitted to and approved by IPC's surveyor. See IPC survey requirements in Appendix B, attached hereto and made a part hereof.

1.4.6.4 Title Insurance. Title report and A.L.T.A. extended owners' pro forma policy of title insurance for the amount of the value of the Interconnection Facility Easement or Fee Ownership Parcel and access easement areas. Seller shall provide proof and information to establish the value of the easement or 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 Interconnection Facility Easement or Fee Ownership Parcel and access easement areas. Title mitigation measures shall be performed by Seller at Seller's sole cost and expense. Title policy to include endorsements as required by IPC at Seller's sole cost and expense. Seller to provide an electronic copy of all exceptions to title insurance for IPC review. Seller to provide Idaho Power with a final A.L.T.A. extended owners' policy of title insurance.

1.4.6.5 A.L.T.A. 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. If IPC requires a Fee Ownership Parcel for the Interconnection Facility, Seller shall provide an A.L.T.A. survey of the Fee Ownership Parcel to be conveyed to IPC and all Land Transactions. If IPC requires an Easement for the Interconnection Facility, Seller may provide IPC with a copy of Seller's A.L.T.A. survey or with an A.L.T.A. survey

in IPC's name but the A.L.T.A. survey shall include the Interconnection Facility Easement Area, as well as all Land Transactions.

1.4.6.6 Phase I Environmental Analysis. A Phase I environmental analysis ("Phase I EA") of Seller'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. If IPC requires a Fee Ownership Parcel for the Interconnection Facility, Seller shall provide a Phase 1 EA in IPC's name with warranties for IPC. If IPC requires an Easement for the Interconnection Facility, Seller shall provide IPC with a copy of Seller's Phase 1 EA but which shall include and reference the Interconnection Facility Easement Area.

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

1.4.6.8 Land Division. Should a division of land be necessary to create a new Fee Ownership Parcel, Seller 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. Seller shall provide final approval documentation to IPC.

Seller is advised that IPC review and approval of the Land Transaction Documents may require six (6) to nine (9) months. Seller is advised to provide all required Land Transaction Documents at earliest possible time. Refer to Appendix C for a quick reference guide to Idaho Power Corporate Real Estate Fee Acquisition and/or Easement Parcel requirements. Upon IPC approval of all Land Transaction Documents, IPC will supply to the Seller final form documents for signature by the land owner of record. The Seller shall return original signed and recorded Land Transaction Documents to IPC. All recording and mailing fees shall be paid by Seller. IPC shall provide to Seller electronic copies of all fully executed and recorded Land Transaction documents.

1.4.7 Site Work

The Seller will acquire property for IPC's interconnection station yard and provide access, land clearing and grading. A separately fenced and lockable corner of the interconnection station yard can be made available, at the Seller's request, for interface equipment and facilities. The substation will be owned and maintained by the Seller. The interconnection station will be owned and maintained by IPC.

1.4.8 Construction Permits

The Seller shall be responsible for Construction permits (including the IPC side of the interconnection site), subject to local regulations.

1.4.9 Monitoring Information

If the Seller requires the ability to monitor information related to the IPC breaker/relay (i.e. Mirrored Bits) in the interconnection station, 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.

1.4.10 Meteorological Data

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

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

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

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
Pryanometer: Apogee Instruments Model SP-230

1.4.11 Generator Technical Information & Drawings

Seller shall provide draft design prints during FSR development containing technical information, like impedances, and equipment brand and models. After construction, the Seller shall submit to IPC all the as-built information, including prints with the latest approved technical information and commissioning test results.

1.5 IPC Company's Interconnection Facilities

IPC will install a short 69 kV transmission tap between the existing 69 kV transmission line and the Seller owned interconnection station (this does not include the 69kV line between the Project and the Point of Interconnection. The tap is assumed to be approximately [redacted] long or less. A dead-end structure, 69 kV circuit breaker, two air-break switches, and associated relaying, control and metering equipment in the substation yard and building up to the Point of Change of Ownership will be installed. Revenue metering will be accomplished on the high side of the transformer.

To meet NERC's MOD-11 and 13-WECC-CRT-1, R1.2 requirements, IPC will install equipment to collect and transmit Phasor Measurement Unit (PMU) data to IPC. The communication circuits required for this data transmission are described above (section 1.4.1). The data can be made available to the Seller on request.

The minimum acceptable PMU message rate is 30 samples per second. The minimum set of PMU measurement channels recorded at the POI is shown below. Additional or substitute channels may be required[1] on a per case basis depending on the interconnection configuration and facility design details.

- Frequency
- Frequency Delta (dF/dt)
- A-B-C Phase Voltage Magnitude
- A-B-C Phase Voltage Angle
- Positive Sequence Voltage Magnitude
- Positive Sequence Voltage Angle
- A-B-C Phase Current Magnitude
- A-B-C Phase Current 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 Seller 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 Seller. Additionally, failure by Seller 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 Seller is unable to meet dates as outlined below, Seller may request an extension of the Operation Date of up to three (3) years. Seller's request will be evaluated by IPC to ensure Seller's request does not negatively impact other projects in IPC's Generator Interconnection Queue. Such extension will be allowed only if IPC determines, in its sole discretion, that the extension will not negatively impact other projects in IPC's Generator Interconnection Queue. Estimated milestones, which will be updated and revised for inclusion in the GIA in light of subsequent developments and conditions, are as follows:

Estimated Date	Responsible Party	Estimated Milestones
July 31, 2017	*Seller*	*IPC receives Notice to Proceed and construction funding or arrangements acceptable to IPC are made with IPC's Credit Department*
9 months after construction funds received	*IPC*	*IPC Engineering and Design Complete*
15 months after construction funds received	*IPC*	*IPC Long Lead Material Procured/Received*
15 months after construction funds	*Seller*	*Easements and permits procured for IPC site, construction will not begin until easements*

[1] Consult with System Planning to determine acceptability.

received		*and permits are in place.* *Detailed in Appendix C attached.*
20 months after construction funds received	*IPC*	*IPC Construction Complete*
15 months after construction funds received	*Seller*	*Telecommunication circuits identified in Section 1.4.1 are operational and provided to the IPC site*
21 months after construction funds received	*IPC*	*IPC Commissioning Complete, commissioning will not take place until Telecommunication circuits are operational*
5 days after switching request made to IPC Dispatch	*Seller*	*Switch at the Point of Interconnection can be closed*
TBD	*IPC*	*Notification from IPC's Energy Contracting Coordinator confirming First Energy of Non-Firm Output*
TBD	*Seller*	*Seller testing begins*
TBD	*IPC*	*Notification from IPC's Energy Contracting Coordinator confirming Operation Date (pending all requirements are met) of Firm Network Resource Output*

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 Operation Date. 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 Seller, failure of IPC's vendors to timely perform services or deliver goods, and delays in payment from Seller, may result in delays of any estimated milestone and the Operation Date 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 519-1992 *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..

[redacted] Project will be subject to reductions directed by IPC Grid 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 Fast Frequency Response for both positive and negative frequency deviations from 60Hz (+/- 0.036 Hz) for Bulk Electric System disturbances. The required frequency response will be linear for a deviation of 0 to +/- 0.1 Hz, a response of 0% to 3% of generator capacity, with a maximum required response of 3% of generator's full capacity for as long as the generator is able to provide support or the frequency deviation is reduced to within stated limits, whichever occurs first. Provided that Generator meets the above Fast Frequency Response requirements, Company shall not curtail Seller when such curtailments are caused by a need to comply with applicable Frequency Responsive reliability standards.

Seller will be able to modify power plant facilities on the Seller side of the Interconnection Point with no impact upon the operation of the transmission or distribution system whenever the generation facilities are electrically isolated from the system via the [redacted] switch and a terminal clearance is issued by IPC's Grid Operator.

4. Reactive Power

The Project shall be capable of injecting reactive power (over-excited) and absorbing reactive power (under-excited) equal to 7.26 MVAR at all active power output between 20% and 100% of nameplate active power rating.

IPC will determine the reactive power required to be supplied by IPC to the Seller, based upon information provided by the Seller. IPC will specify the equipment required on IPC's system to meet the Facility's reactive power requirements. These specifications will include but not be limited to equipment specifications, equipment location, IPC-provided equipment, Seller provided equipment, and all costs associated with the equipment, design and installation of IPC-provided equipment. The equipment specifications and requirements will become an integral part of the GIA. IPC-owned equipment will be maintained by IPC, with total cost of purchase, installation, operation, and maintenance, including administrative cost to be reimbursed to IPC by the Seller. Payment of these costs will be in accordance with Schedule 72 and the total reactive power cost will be included in the calculation of the Monthly Operation and Maintenance Charges specified in Schedule 72.

5. Upgrades

5.1 Upgrades to Substations

In addition to the new 69Kv interconnect substation; there will be upgrades to the relaying at Idaho Power's [redacted] ([redacted]) and [redacted] ([redacted]) Substations.

5.2 Upgrades to the Transmission System

Two 69 kV switches will be installed; one on the [redacted] side of the Point of Interconnection and one on the [redacted] side. There will be up to three transmission structures replaced and two new structures installed to accommodate line switches and a tap into the station.

6. Estimated Costs

The following good faith estimates are provided in 2017 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. Seller 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 GIA executed by IPC and Seller.

The estimated cost below is required to be paid in full prior to IPC commencing project or other arrangements acceptable to IPC are made with IPC's Credit Department.

Estimated Cost:

Description	Ownership	Cost Estimate
Interconnection Facilities:		
[redacted] 69kV transmission line extension to slack span off existing transmission line into the station. Station property improvements, fencing, dead-end structure, two 69kV air break switches, fused disconnect switches, on 69kV circuit breaker, associated CT's and PT's, a control building with associated relaying, control, communication and revenue metering equipment	IPC	$1,409,678
TOTAL		**$1,409,678**
Substation Upgrades	IPC	
Remove and replace line protection relays at both [redacted] and [redacted] subsstaions		$198,250
TOTAL		**$198,250**
Upgrades to Transmission:		
Two 69kV transmission air break switches (one switch on each side of the tap). Replace three structures and add two new structures to existing 69 kV transmission line.	IPC	$148,492
TOTAL		**$148,492**
GRAND TOTAL		**$1,756,420**

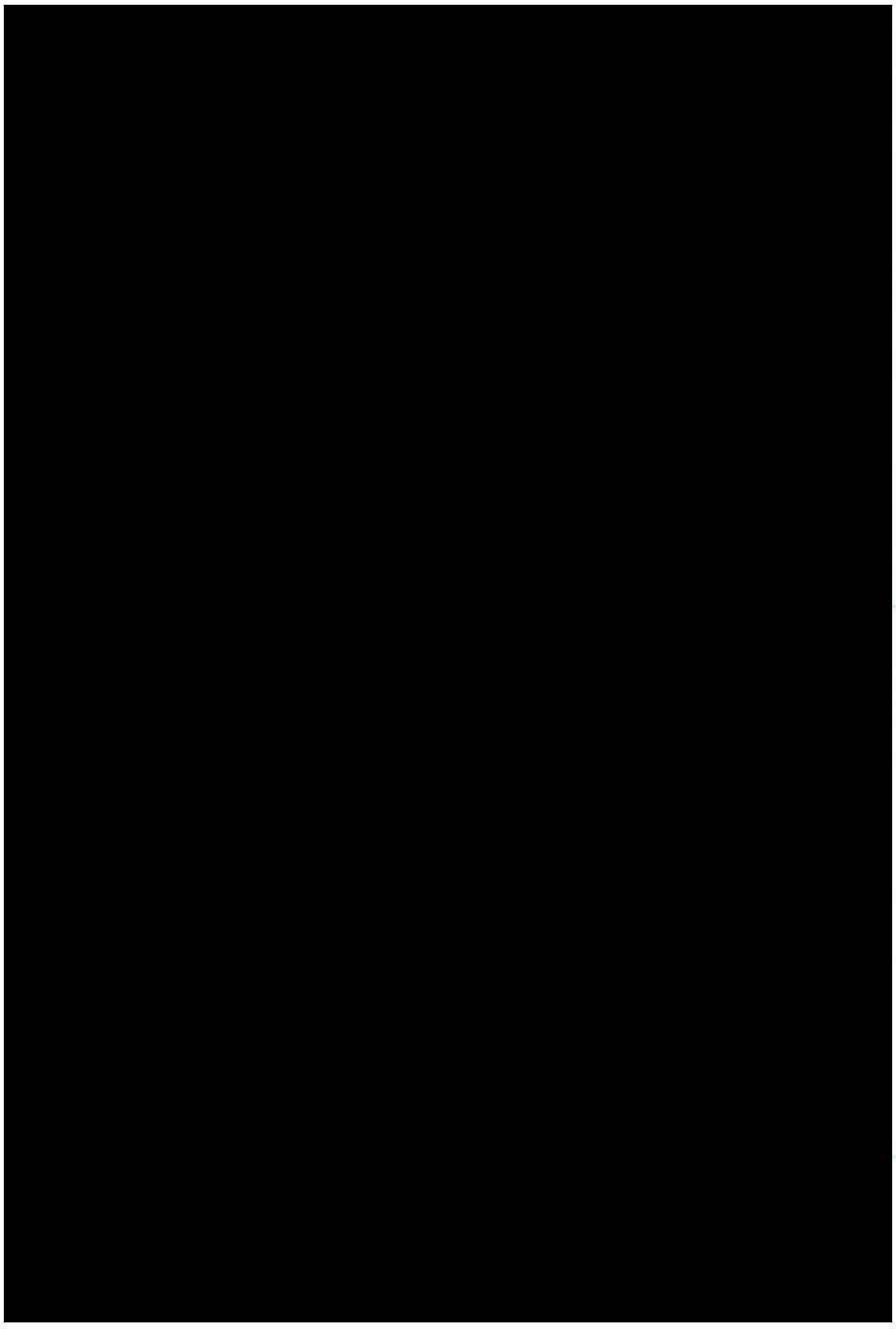
Note Regarding Transmission Service:

This FSR is a Network Resource Interconnection Facility Study. This FSR identifies the facilities necessary to integrate the Generating Facility into IPC's network to serve load within IPC's balancing area. Network Resource Interconnection Service in and of itself does not convey any right to deliver electricity to any specific seller or Point of Delivery.

Note Regarding GIA:

This Facility Study Report (FSR) 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 FSR. Unless and until a GIA is executed by IPC and Seller, no party will have any legal rights or obligations, express or implied, related to the subject matter of this FSR.

FIGURE 1



Appendix A

Generation Interconnection Control Requirements

A.1 Generator Output Limit Control (GOLC)

A.1.1 IPC requires Interconnected Power Producers to accept GOLC signals from our EMS.

A.1.2 The GOLC signals will consist of four points shared between the IPC EMS (via the IPC RTU) and the Seller's Generator Controller. The IPC RTU will be the master and the Seller's Generation Controller will be the slave.

A.1.2.1 GOLC Setpoint: An analog output that contains the MW value the Seller should curtail to, should a GOLC request be made via the GOLC On/Off discrete output Control point.

A.1.2.1.1 An Analog Input feedback point must be updated (to reflect the GOLC setpoint value) by the Seller Controller upon the Controller's receipt of the GOLC setpoint change, with no intentional delay.

A.1.2.2 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 Seller Controller 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"), the Seller is free to run to maximum possible output.

A.1.2.2.1 A Discrete Input (DI) feedback point must be updated (to reflect the last GOLC DO Control Code received) by the Seller Controller upon the Controller'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.

A.1.3 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.

A.2 Volt/Var Control

A.1.1 IPC requires Interconnected Power Producers to accept Volt/Var signals from our EMS.

A.1.2 The VOLT/VAR signals will consist of sixteen points shared between the IPC EMS (via the IPC RTU) and the Customer's Generator Controller. The IPC RTU will be the master and the Customer's Generation Controller will be the slave.

A.1.2.1 VOLT/VAR Setpoints: Eight analog output that contains the Volt and Var values the Customer should control to meet the volt/var curve provided.

A.1.2.1.1 Eight Analog Input feedback points must be updated (to reflect the VOLT/VAR setpoint value) by the Customer Controller upon the Controller's receipt of the VOLT/VAR setpoint change, with no intentional delay.

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A.3 Generation Interconnection Data Points Requirements

Digital Inputs to IPCo (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) (If applicable)	Off/On	Feedback provided by Interconnection Customer
2	52A Customer MAIN BREAKER (if present)	Open/Closed	Sourced at substation
3	52A Customer Capacitor Breaker (if present)	Open/Closed	Sourced at substation

Digital Outputs to Customer (DNP Obj. 12, Var. 1)		
Index	Description	Comments:
0	GOLC Off/On	Control issued by Idaho Power
1	FREQUENCY RESPONSE Off/On (if applicable)	Control issued by Idaho Power
2	EMS COMM OFF/ON	Calculated point from Idaho Power Interconnection RTU

Analog Inputs to IPCo (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 Seller
1	SPARE						
2	Maximum Park Generating Capacity	32767	-32768	TBD	TBD	MW	Provided by Seller

3	Ambient Temperature	32767	-32768	327.67	-327.68	Deg C	Provided by Seller
4	Wind Direction	32767	-32768	3276.7	-3276.8	Deg from N	Provided by Seller
5	Wind Speed	32767	-32768	327.67	-327.68	M/S	Provided by Seller
6	Relative Humidity	32767	32768	TBD	TBD	%	Provided by Seller
7	Global Horizontal Irradiance	32767	32768	TBD	TBD	W/M^2	Provided by Seller
8	Plane of Array Irradiance	32767	32768	TBD	TBD	W/M^2	Provided by Seller
9	SPARE						
10	VOLT1_MIN (Feedback)	32767	-32768	327.67	-327.68	PU	Provided by Seller
11	VOLT2_LOW (Feedback)	32767	-32768	327.67	-327.68	PU	Provided by Seller
12	VOLT3_HIGH (Feedback)	32767	-32768	327.67	-327.68	PU	Provided by Seller
13	VOLT4_MAX (Feedback)	32767	-32768	327.67	-327.68	PU	Provided by Seller
14	VAR1_LEAD (Feedback)	32767	-32768	327.67	-327.68	% AVAIL	Provided by Seller
15	VAR2_ZERO2 (Feedback)	32767	-32768	327.67	-327.68	% AVAIL	Provided by Seller
16	VAR3_ZERO3 (Feedback)	32767	-32768	327.67	-327.68	% AVAIL	Provided by Seller
17	VAR4_LAG (Feedback)	32767	-32768	327.67	-327.68	% AVAIL	Provided by Seller

Analog Outputs to 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 Idaho Power
1	SPARE						
2	VOLT1_MIN (Feedback)	32767	-32768	327.67	-327.68	PU	Provided by Seller
3	VOLT2_LOW (Feedback)	32767	-32768	327.67	-327.68	PU	Provided by Seller
4	VOLT3_HIGH (Feedback)	32767	-32768	327.67	-327.68	PU	Provided by Seller
5	VOLT4_MAX (Feedback)	32767	-32768	327.67	-327.68	PU	Provided by Seller
6	VAR1_LEAD (Feedback)	32767	-32768	327.67	-327.68	% AVAIL	Provided by Seller
7	VAR2_ZERO2 (Feedback)	32767	-32768	327.67	-	%	Provided by Seller

					327.68	AVAIL	
8	VAR3_ZERO3 (Feedback)	32767	-32768	327.67	-327.68	% AVAIL	Provided by Seller
9	VAR4_LAG (Feedback)	32767	-32768	327.67	-327.68	% AVAIL	Provided by Seller

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 ExhibitB?
- ❑ 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 and/or Easement 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. **Right of Entry Agreement**. A Right-of-Entry Agreement is attached and 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.

2. **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 is attached and 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. Individual forms are attached, as well.

3. **Land Division (if needed)**. Should a division of land be necessary to separate the substation parcel from an underlying, larger property ("Property"), Developer will be required to submit application to the County for the land division and to ensure the satisfaction of all conditions to complete the land division.

4. **Title Commitment**. Idaho Power requires that Developer ensure the substation lands and access easement over the Property are free from any encumbrances to title. To meet this requirement, a Title Commitment with A.L.T.A. extended coverage owner's policy in Idaho Power's name is required. All exceptions to title insurance need to be provided with the Title Commitment for Idaho Power review. Upon receipt, Idaho Power will review all exceptions and will advise of any necessary follow-up actions. Importantly, Idaho Power requires a form of ownership that is free and clear from all encumbrances and will require the developer to complete title curative measures as Idaho Power deems necessary.

5. **Survey**. An A.L.T.A survey for the substation parcel, and which includes the access easement is required. The A.L.T.A. survey will be reviewed by Idaho Power's surveyor who will advise of any necessary revisions.

6. **Legal Descriptions**. Written legal descriptions, stamped and signed by a surveyor licensed in the state of Idaho, are required for the substation parcel, access easement area, and all distribution/transmission line easement parcels. The written legal descriptions will be reviewed by Idaho Power's surveyor who will advise of any necessary revisions.

7. **Phase I Study**. Developer shall provide Idaho Power with a Phase I study prepared by an independent environmental site assessment company, in Idaho Power's name, which recognizes Idaho Power as the purchaser of the substation parcel and User of the Phase I report, and which provides warranties to Idaho Power for the substation parcel and access easement areas. The Phase I study will be reviewed by Idaho Power and Idaho Power will advise if a Phase II or other necessary actions or required based on the results of the Phase I study.

8. **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.

9. **Land Use Permits or Authorizations**. Developer shall be responsible to secure any necessary land use entitlements or authorizations from the local jurisdiction, local agencies, state of Idaho, or Federal or other agencies to allow the development of the substation parcel, access road and ancillary transmission or distribution lines and facilities (example: Conditional Use Permit from city or county). Any such authorizations shall be secured in Idaho Power's name and for the benefit of Idaho Power. Idaho Power will require the Developer to satisfy all conditions of approval and requirements for any such entitlement or authorization.

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

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

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

Substation Easement

An easement may be secured if Idaho Power will not have a purpose or need to use the property beyond the current development. An example would be a solar farm development that requires a new Idaho Power interconnect substation that will not be used by Idaho Power in the future if the solar farm operation is discontinued.

Corporate Real Estate process will require the following steps and/or documents.

Process time frame: 6 mos. to 1 year depending on project specifics

1. **Right of Entry Agreement**. A Right-of-Entry Agreement will allow Idaho Power to conduct necessary due diligence 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 prior to Idaho Power entry onto the owner's lands for testing, surveying, ect. and will allow the preliminary stages of project development to commence pending completion of the transfer of substation lands to Idaho Power.

2. **Purchase and Sale Agreement – Substation Easement – Access Easement – Power Line Easements**. Idaho Power requires the following easements from the underlying property owner for our interconnection facilities: (1) substation easement, (2) access easement (for access to the substation) and (3) transmission and distribution line easements. Corporate Real Estate will enter into a purchase and sale agreement with the underlying property owner to provide for the grant of the easements to Idaho Power.

3. **Title Commitment**. Idaho Power requires that Developer ensure the substation, access, and power line easement lands are free from any encumbrances to title. To meet this requirement, a Title Commitment with A.L.T.A. extended coverage owner's policy in Idaho Power's name is required. All exceptions to title insurance need to be provided with the Title Commitment for Idaho Power review. Upon receipt, Corporate Real will review all exceptions and will advise of any necessary follow-up actions. Importantly, Idaho Power requires a form of ownership that is free and clear from all encumbrances.

4. **Survey**. An A.L.T.A survey for the substation, access and power line easements is required. The A.L.T.A. survey will be reviewed by Idaho Power's surveyor who will advise of any necessary revisions.

5. **Legal Descriptions**. Written legal descriptions, stamped and signed by a surveyor licensed in the state of Idaho, are required for the substation easement, access easement, and distribution/transmission line easements. The written legal descriptions will be reviewed by Idaho Power's surveyor who will advise of any necessary revisions.

6. **Phase I Study**. Developer shall provide Idaho Power with a Phase I environmental site assessment study for the substation, access and power line easement lands, which (1) is prepared by an independent environmental site assessment company, in Idaho Power's name, (2) recognizes that Idaho Power holds an interest in the easement areas and is a User of the Phase I report, and (3) provides appropriate environmental warranties to Idaho Power for the lands over which the substation, access and power line easements will be located. The Phase I study will be reviewed by Idaho Power and Idaho Power will advise if a Phase II environmental site assessment or other actions are required based on the results of the Phase I study.

7. **Public Lands Permits/Authorizations (if needed)**. Should any public lands, rights-of-way, etc. be affected by Idaho Power's use of or access to the interconnection facilities, Developer shall be responsible to secure any 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. for the agency permits.

8. **Land Use Permits/Authorizations**. Developer shall be responsible to secure any necessary land use entitlements or authorizations from the local jurisdiction, local agencies, state of Idaho, or Federal or other agencies for Idaho Power's construction, operation and maintenance of the interconnection facilities (example: Conditional Use Permit from city or county). Any such authorizations shall be secured in Idaho Power's name and for the benefit of Idaho Power. Idaho Power will require that the Developer satisfy all conditions of approval and requirements for any such entitlement or authorization.

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

10. **Miscellaneous Documents.** Other Miscellaneous Documents as necessary for the specific project, and which may include Memorandums of Understanding or Agreement, etc.

RIGHT-OF-ENTRY AGREEMENT

Project Name: _____

This Right-of-Entry Agreement ("**Agreement**"), is entered into as of this ___ day of _____, 2017 ("**Effective Date**"), between _____ ("_____") and Idaho Power Company, an Idaho corporation ("**Idaho Power**") with respect to the following:

A. _____ owns a parcel of land known as _____ in _____ County, Idaho as described on **Exhibit A** attached hereto and made a part hereof (the "**Property**").

B. Idaho Power desires to have a right-of-entry to enter upon the Property to conduct: _____.

C. _____ is agreeable to such use of the Property subject to the terms and conditions of this Agreement.

Now therefore, in consideration of the mutual covenants and agreements set forth herein, the parties agree as follows:

1. Grant of Right-of-Entry._____ grants to Idaho Power a non-exclusive, temporary right-of-entry ("**Right-of-Entry**") for the Term defined below to use the Property for the sole purpose of land surveys and field studies related to the Project, subject to the terms and conditions hereof.

2. Term. The term of this Agreement shall commence on the Effective Date and shall continue until _____, unless earlier terminated by Idaho Power at any time upon written notice to _____ at the address set forth in Section 6 below ("**Term**"). Upon the expiration or earlier termination of this Agreement by Idaho Power, Idaho Power shall immediately cease all use of the Property and remove any Idaho Power facilities located upon the Property within ten (10) days after the date of termination.

3. Use of the Property. Idaho Power shall not take any action upon the Property that would create any damage, unsafe conditions or hazards upon the Property. If any such damage is caused, Idaho Power shall repair the same at its sole expense, and restore the Property to the condition it was in prior to the use thereof by IPC.

4. Compliance with Laws. Idaho Power shall at all times comply with all applicable laws, rules, and regulations in connection with the use of the Property under this Agreement.

5. Indemnification. Idaho Power agrees to indemnify, defend, and hold _____ harmless from and against any and all claims or actions for injuries to persons or damage to property caused by Idaho Power's negligent use of the Property under this Agreement.

6**. Notices and Delivery.** Any notice, demand, request, consent or approval given under this Agreement shall be in writing and shall be deemed given and delivered on the date when personally delivered or, if mailed, four (4) days after deposit in the United States mail, in a sealed envelope, by

registered or certified mail, return receipt requested, with postage prepaid, addressed to the appropriate party at the address set forth below:

_____:	**IDAHO POWER:**
_____ _____ _____	Idaho Power Company Corporate Real Estate Dept. [redacted]
Phone: (541) _ _ _ - _ _ _ _	Phone: ([redacted]

The above addresses for _____ and Idaho Power shall be effective unless and until changed by written notice given to the other party. The parties acknowledge and agree that the phone numbers provided above are for convenience purposes only but that notices hereunder must be personally delivered or mailed as provided above.

7. **Entire Agreement; Amendments.** This Agreement constitutes the entire agreement and understanding between the parties regarding Idaho Power's use of the Property. Any amendments to this Agreement must be in writing and executed by duly authorized representatives of both parties.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first set forth above.

_____	**IDAHO POWER COMPANY,** **AN IDAHO CORPORATION**
By: _____	
Print Name: _____	By: _____ [redacted]
Title: _____	Corporate Services Director
Date: _____	Date: _____

LIST OF EXHIBITS:

Exhibit A – Description of Property

EXHIBIT A

Description of Property

(Taken from deed)

_____
_____
_____
_____