

Generator Interconnection Facility Study Report

for the

[REDACTED] Project GI #502, 503, 513, 514, 517, 523

for

**[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]**

in

Twin Falls County, Idaho

1/18/2018

FACILITY STUDY REPORT (FSR)

[REDACTED]

Project GI #502, 503, 513, 514, 517, 523

1/18/2018

1. General Facility Description

[REDACTED] (Seller) has stated that the proposed project will consist of six 20 MW photovoltaic projects in Twin Falls County, Idaho. The Project will connect to the 345kV system on the [REDACTED] [REDACTED] ([REDACTED]) transmission line. This transmission line is jointly owned by Idaho Power Company (IPC) and [REDACTED]. The total project output as studied is 120 MW. The Project is located in IPC's Southern Region in Township [REDACTED], Range [REDACTED], Section [REDACTED] and is approximately [REDACTED] miles north of the Nevada-Idaho border.

Contact Information for Seller is as follows:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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

1. The inverter system will comprise of [REDACTED] Inverters, with each inverter having an apparent power rating of 1,850 KVA.
2. 72 inverter stations will each comprise of 1 Utility Inverter and a 1,850 KVA isolating transformer with a 385V grounded-wye to 34.5kV delta rating.
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.

A Standard Generator Interconnection Agreement (the "GIA") under IPC's Open Access Transmission Tariff (OATT) between Seller and IPC – Delivery (Transmission Owner) for the [REDACTED] [REDACTED] Project, specifically Generator Interconnection Projects # 502, 503, 513, 514, 517 and 523, will be prepared for this project. The GIA will be a definitive agreement that contains terms and conditions that supersedes this FSR.

1.1 Interconnection Point

The Point of Interconnection for the [REDACTED] Project will be on the Seller's side of air break switch [REDACTED] at Idaho Power's interconnection station. A drawing identifying the Point of Interconnection is attached as Exhibit 1.

1.2 Point of Change of Ownership

The Point of Change of Ownership for the [REDACTED] Project will be the same as the Interconnection Point.

1.3 Seller's Interconnection Facilities

The Seller will install solar arrays, inverters, disconnect switches, distribution collector system, transformers (including a main step-up transformer), controllers, appropriate grounding measures, and associated auxiliary equipment. Seller will build facilities to the Point of Change of Ownership.

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 [REDACTED] Transmission Station ([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 or more 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 each required Phasor Measurement Unit (PMU) between the generation interconnection site demarcation and [REDACTED] Transmission Station ([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 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.

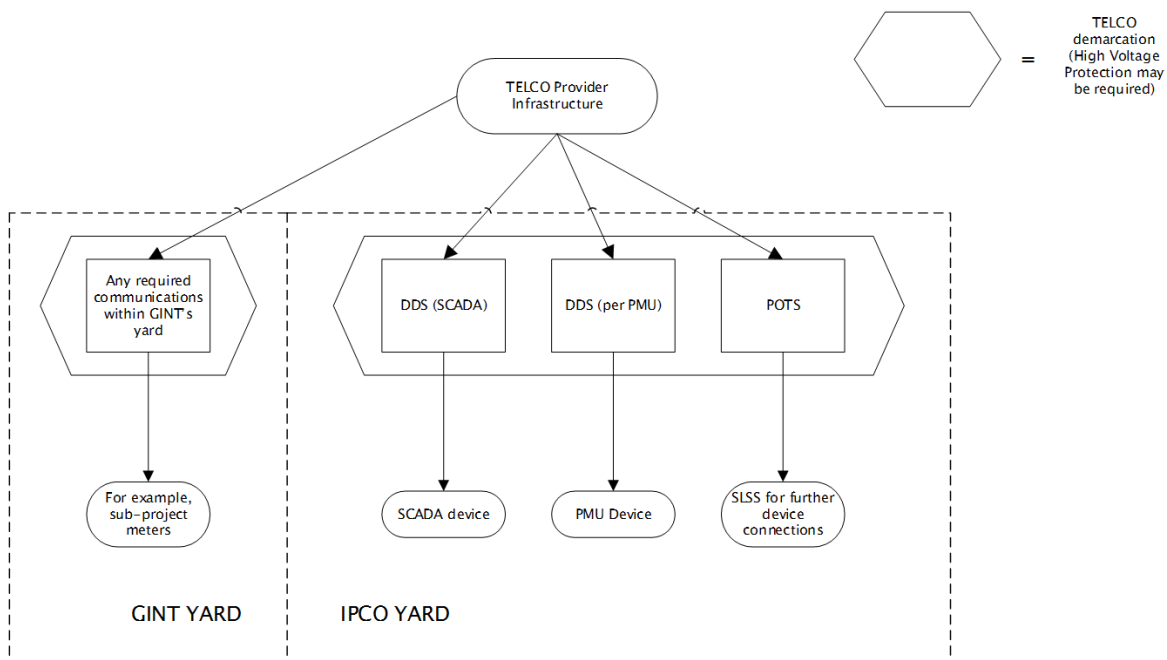
The Seller or their third party communications provider may need to install communications equipment (i.e. batteries, multiplexers, etc) near each terminus of the required communications circuits. If this equipment is required, the Seller shall be responsible to install this equipment in facilities/locations 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 surveyed (Metes & Bounds) legal description (along with exhibit map of IPC's interconnection facilities),

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 conveyance in a form as provided by IPC;
- 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 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 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 and approval. 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. 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. Seller shall provide IPC with a copy of Seller's Phase I 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 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 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 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 or the station 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 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

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 fenced 150' x 175' interconnection station yard with a control building and a short 345 kV transmission tap between the existing [REDACTED] 345 kV transmission line and IPC's interconnection station. The tap is assumed to be approximately [REDACTED] long. Two dead-end structures, a 345 kV circuit breaker, two air break switches, CTs, PTs and associated relaying, PLC communications, control and metering equipment will be installed in the station yard and building. IPC will install facilities up to the Point of Change of Ownership. Revenue metering will be accomplished on the high side of the transformer. For IPC's interconnection station local service, IPC will extend a single phase circuit of the nearest IPC distribution feeder approximately [REDACTED] miles to the Interconnection site.

None of IPC's facilities will be located on BLM land. Placement of the interconnection station must be such that the distribution and transmission work can be completed off of BLM land.

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 required¹ 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

¹ Consult with System Planning to determine acceptability.

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
[DATE]	<i>Seller</i>	<i>IPC receives Notice to Proceed and construction funding OR arrangements acceptable to IPC are made with IPC’s Credit Department</i>
6 months after construction funds received	<i>IPC</i>	<i>IPC Engineering and Design Complete</i>
8 months after construction funds received	<i>IPC</i>	<i>IPC Long Lead Material Procured/Received</i>
12 months after construction funds received	<i>Seller</i>	<i>Easements and permits procured for IPC site, construction will not begin until easements and permits are in place. Detailed in Appendix C attached.</i>
12 months after construction funds received	<i>IPC</i>	<i>New generation must be modeled and submitted to EIM a minimum of 6 months prior to coming online, failure to submit by given lead time will results in project delay.</i>
17 months after construction funds received	<i>IPC</i>	<i>IPC Construction Complete</i>
17 months after construction funds received	<i>Seller</i>	<i>Telecommunication circuits identified in Section 1.4.1 are operational and provided to the IPC site</i>
18 months after construction funds received	<i>IPC</i>	<i>IPC Commissioning Complete, commissioning will not take place until Telecommunication circuits are operational</i>
TBD	<i>Seller</i>	<i>Seller testing begins</i>

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.

██████████ 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 ██████████ switch and a terminal clearance is issued by IPC’s Grid Operator.

4. Reactive Power

The ██████████ Project must be capable of +/- 0.95 power factor operation, as measured at the Interconnection Point, for all MW production levels. The Project must have equipment capable of receiving an analog setpoint, via DNP 3.0 from IPC for Voltage Control. The setpoint will be the desired voltage level as measured at the interconnect bus. The range of setpoint will be 345kV to 362kV. For more detail see Appendix A.

5. Upgrades

5.1 Upgrades to the Distribution System

IPC will extend a distribution feeder (██████████) out of IPC’s ██████████ substation approximately █ miles to the the interconnection switching station. The feeder extension will be

installed to provide local service to IPC’s interconnection station and will be of single phase configuration. The feeder route will avoid BLM lands.

5.2 Upgrades to Substations

No substation upgrades are required.

However, a joint IPC/██████████ project is currently underway to replace the line relaying and to upgrade PLC communications at ██████████ and ██████████ Substations for the ██████████ 345kV transmission line. This project must be complete before the ██████████ Project can come online. Delays caused by the coordination efforts between IPC and ██████████ on the joint project are beyond IPC’s control and may result in delays to the Seller’s project.

5.3 Upgrades to the Transmission System

IPC will install a ██████ tap off of the ██████████ 345kV line transmission line ██████ to connect to the interconnection station. IPC will install one dead end structure, utilizing down guys, and replace 2 adjacent delta towers with TSH structures. Placement of the new structures and down guys will avoid BLM lands.

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
<i>Interconnection Facilities:</i>		
Interconnection Station including breaker, switches and control building	IPC	<u>\$2,755,000</u>
<i>TOTAL</i>		\$2,755,000
<i>Upgrades to Distribution:</i>		
Install █ miles of Single Phase Feeder	IPC	<u>\$200,000</u>
<i>TOTAL</i>		\$200,000
<i>Upgrades to Transmission:</i>		
Replace 2 Delta Towers, install DE and jumpers	IPC	<u>\$185,000</u>
<i>TOTAL</i>		\$185,000
<i>GRAND TOTAL</i>		<u>\$3,140,000</u>

Note Regarding Transmission Service:

This FSR is an Energy Resource Interconnection Facility Study. This FSR identifies the facilities necessary to connect the Generating Facility to IPC's Transmission System and be eligible to deliver the Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. Energy Resource Interconnection Service does not in and of itself convey any right to deliver electricity to any specific seller or Point of Delivery.

IPC Transmission Network Upgrades associated with transmission service may be necessary if firm transmission is required to deliver the Project's generation from the point of interconnection to a point of delivery. A Transmission Service Request (TSR) will be required to secure rights on the IPC system, either through latent capacity, or Network Upgrades. Either the Seller, or the merchant purchasing the generation from the Seller, will have to make this TSR. IPC Transmission Upgrade costs associated with transmission service are not included in this study.

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.

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 Voltage Control

A.2.1 IPC requires Transmission-Interconnected Power Producers to accept Voltage Control signals from our EMS when they are connected to our transmission system.

A.2.2 The voltage control will consist of one setpoint and one feedback point shared between the IPC EMS and the Seller Controller.

A.2.3 The setpoint will contain the desired target voltage for the plant to operate at. This setpoint will have a valid control range of 0.95 and the 1.05 per unit of nominal system voltage.

A.2.4 The control will always be active, there is no digital supervisory point like the Curtail On/Off control above.

A.2.4.1 When a setpoint change is issued an Analog Input feedback point must be updated (to reflect the Voltage Control setpoint value) by the Seller Controller upon the Controller's receipt of the Voltage Control setpoint change, with no intentional delay.

A.2.4.2 When a setpoint change is received by the Seller Controller, the Voltage Control system should react with no intentional delay.

A.2.4.3 The voltage control system should operate at the voltage indicated by the setpoint with an accuracy of +/- 0.5% of the nominal system voltage.

A.2.5 The Seller 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 .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.

A.3 Generation Interconnection Data Points Requirements

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 Seller
1	FREQUENCY RESPONSE OFF/ON (Control Feedback)	Off/On	Feedback provided by Seller
2	52A Seller Main Breaker (if present)	Open/Closed	Sourced at substation
3	52A SellerCapacitor Breaker (if present)	Open/Closed	Sourced at substation

Digital Outputs to Seller (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

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 Seller
1	Voltage Control Setpoint Value Rec'd (Feedback)	32767	32768	TBD	TBD	kV	Provided by Seller
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	327.67	-327.68	Deg from North	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	SPARE						
11	SPARE						
12	SPARE						
13	SPARE						
14	SPARE						

15	SPARE						
16	SPARE						
17	SPARE						

Analog Outputs to Seller (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						
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 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
Easement Parcel Acquisition Requirements for Developers

[See attached document]

**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.