PACIFICORP

Large Generator Interconnection
Qualifying Facility
Facilities Study Report

FINAL

Completed for

(“Interconnection Customer”)
TCS-43

Proposed Point of Interconnection

115 kV Ponderosa substation

February 8, 2023

TABLE OF CONTENTS

1.0 DESCRIPTION OF THE PROJECT

The Interconnection Customer has proposed to interconnect 40 megawatts ("MW") of new solar and battery storage generation to PacifiCorp's ("Transmission Provider") 115 kV Ponderosa substation located in Crook County, Oregon. The Interconnection Request is proposed to consist of thirty-two (32) Ingeteam Ingecon Sun 1600TL B615 2,720 KVA solar inverters for a total requested output of 40 MW at the POI. In addition, the Interconnection Request also consists of a Tesla Megapack 40 MW battery storage system. The requested commercial operation date is December 30, 2022.

Interconnection Customer will operate this generator as a Qualifying Facility as defined by the Public Utility Regulatory Policies Act of 1978 (PURPA).

The Transmission Provider has assigned the project "TCS-43."

2.0 STUDY SCOPE AND OBJECTIVES

The objective of the facilities study is to:

- complete a facilities analysis, which shall specify and estimate the cost of equipment, engineering, procurement, and construction required to address issues as outlined in the system impact study, and
- provide a scope of work and an estimated cost and schedule for completing the scope of work.

The information contained in this study report is based on preliminary information and not to be used for construction.

3.0 STUDY ASSUMPTIONS

- All active higher priority transmission service and/or generator interconnection requests will be considered in this study and are listed in Appendix 1. If any of these requests are withdrawn, the Transmission Provider reserves the right to restudy this request, as the results and conclusions contained within this study could significantly change.
- For study purposes there are two separate queues:
  - Transmission Service Queue: to the extent practical, all network upgrades that are required to accommodate active transmission service requests will be modeled in this study.
  - Generation Interconnection Queue: Interconnection Facilities associated with higher queue interconnection requests will be modeled in this study.
- The Interconnection Customer's request for interconnection service in and of itself does not convey transmission service. Only a Network Customer may make a request to designate a generating resource as a Network Resource. Because the queue of higher priority transmission service requests may be different when a Network Customer requests network resource designation for this Generating Facility, the available capacity or transmission modifications, if any, necessary to deliver 100% of the Project output to network load may be significantly different. Therefore, the

Interconnection Customer should regard the results of this study as informational rather than final.

- This study assumes the Project will be integrated into Transmission Provider's system at the agreed upon and/or proposed point of interconnection.
- The Interconnection Customer will construct and own any facilities required between the Point of Interconnection and the Project unless specifically identified by the Transmission Provider.
- Line reconductor or fiber underbuild required on existing poles will be assumed to follow the most direct path on the Transmission Provider's system. If during detailed design the path must be modified it may result in additional cost and timing delays for the Interconnection Customer's project.
- Under normal conditions, the Transmission Provider does not dispatch or otherwise directly control or regulate the output of generating facilities. Therefore, the need for transmission modifications, if any, which are required to deliver 100% of Project output to the Network Customer's network load will be evaluated (i.e., no displacement of other resources in the same area).
- Generator tripping may be required for certain outages.
- All facilities will meet or exceed the minimum Western Electricity Coordinating Council ("WECC"), North American Electric Reliability Corporation ("NERC"), and Transmission Provider performance and design standards.
- This study assumes that a Transmission Provider planned project to construct a new 115 kV transmission line between Houston Lake and Ponderosa substations is in service. (Q4 2023)
- The Transmission Provider assumes that Bonneville Power Administration ("BPA") will require upgrades on its system to facilitate the Interconnection Customer's Interconnection Request. At the time of the production of this report BPA has not yet completed an Affected Systems Study therefore the Transmission Provider has made assumptions as to the timing of any potential requirements from BPA and its associated timing impact for the Interconnection Customer's Commercial Operation Date. Should BPA's schedule for any system improvements take longer than assumed in this report, the Commercial Operation Date will need to be adjusted accordingly.
- Because each of the six Interconnection Requests within this Cluster Area are proposing to interconnect via shared Interconnection Customer Interconnection Facilities as a single Point of Interconnection the Transmission Provider assumes all six Interconnection Requests will proceed at the same time. If that assumption is not accurate it will likely have a significant schedule delay due to the Transmission Provider needing to potentially stagger design, procurement and construction activities.
- This report is based on information available at the time of the study. It is the Interconnection Customer's responsibility to check the Transmission Provider's web site regularly for Transmission system updates at https://www.oasis.oati.com/ppw

4.0 PROPOSED POINT OF INTERCONNECTION

The Interconnection Customer's proposed Generating Facility is to be interconnected to the Transmission Provider's Ponderosa 115 kV substation located in Crook County, Oregon. Figure 1 below, is a one-line diagram that illustrates the interconnection of the proposed Generating Facility to the Transmission Provider's system.

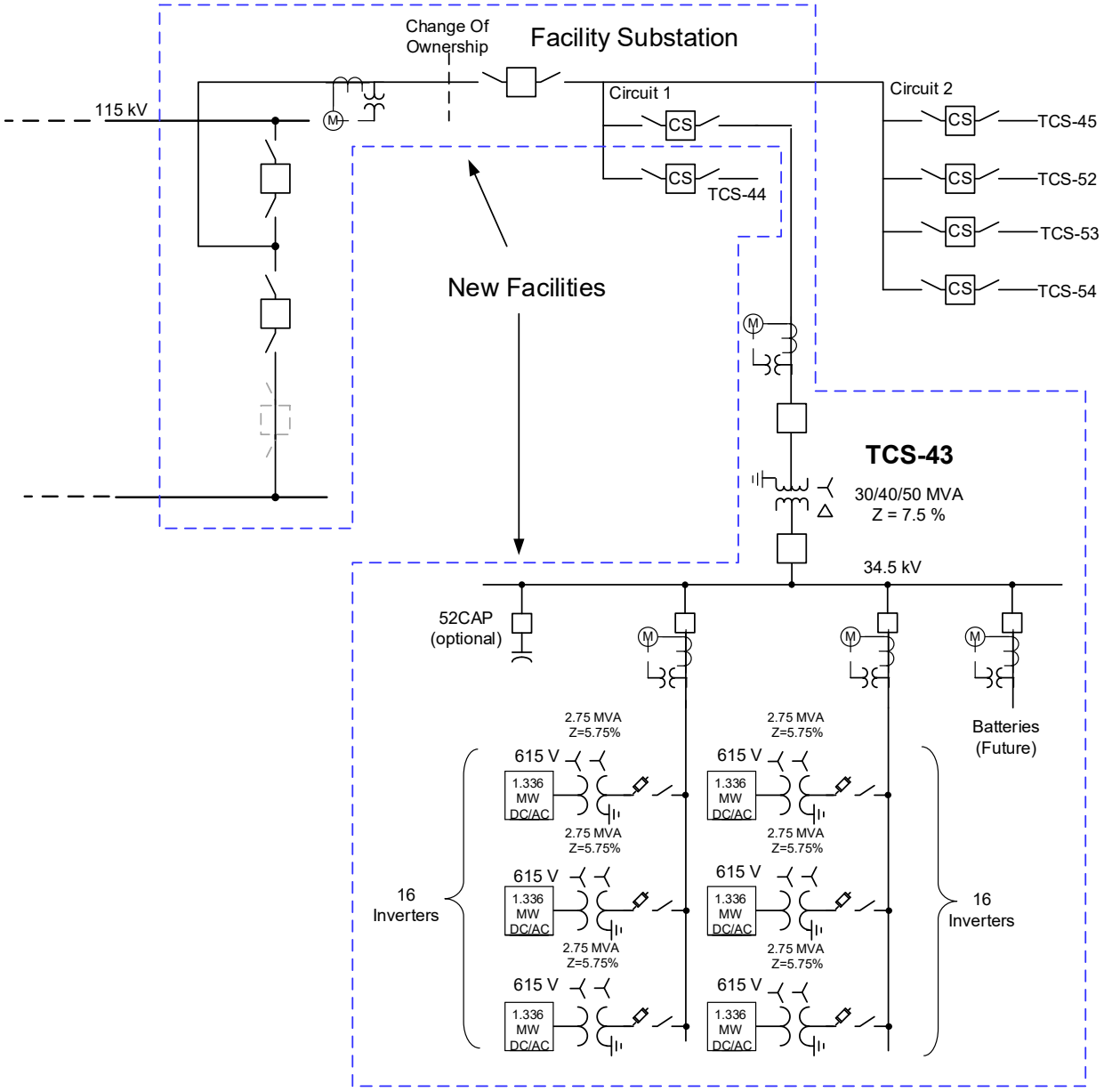

Figure 1: System One Line Diagram

5.0 SCOPE OF WORK

5.1 Generating Facility Modifications

The following outlines the design, procurement, construction, installation, and ownership of equipment at the Interconnection Customer's Generation Facility.

5.1.1 INTERCONNECTION CUSTOMER TO BE RESPONSIBLE FOR

- Procure all necessary permits, lands, rights of way and easements required for the construction and continued maintenance of the Generating Facility and collector substation.
- Design, procure, construct, own and maintain the Interconnection Customer's Generating Facility and associated collector substation.
- Execute any necessary agreements (e.g. shared facilities agreement) to define the various ownership, maintenance and contact responsibilities for each of the generating facilities proposing to share interconnection facilities and a Point of Interconnection. Provide this demonstration to the Transmission Provider prior to the commencement of design activities.
- Design the Generating Facility with reactive power capabilities necessary to operate within the full power factor range of 0.95 leading to 0.95 lagging as measured at the high side of the Interconnection Customer's GSU transformer. This power factor range shall be dynamic and can be met using a combination of the inherent dynamic reactive power capability of the generator or inverter, dynamic reactive power devices and static reactive power devices to make up for losses.
- Design the generating facility such that it can provide positive reactive support (i.e., supply reactive power to the system) immediately following the removal of a fault or other transient low voltage perturbations or install dynamic voltage support equipment. These additional dynamic reactive devices shall have correct protection settings such that the devices will remain on line and active during and immediately following a fault event.
- Equip the Generating Facility with automatic voltage-control equipment and operate with the voltage regulation control mode enabled unless explicitly authorized to operate another control mode by the Transmission Provider.
- Install a Phasor Measurement Unit to collect data from the Project. The data must be collected, held for a minimum of 90 days and be able to stream to the Planning Coordinator for each of the Generator Facility's step-up transformers measured on the low side of the GSU at a sample rate of at least 60 samples per second and synchronized within +/- 2 milliseconds of the Coordinated Universal Time (UTC). Initially, the following data must be collected:
    - Three phase voltage and voltage angle (analog)
    - Three phase current (analog)

  Data requirements are subject to change as deemed necessary to comply with local and federal regulations.
- Operate the Generating Facility so as to maintain the voltage at the Point of Interconnection, or other designated point as deemed appropriated by Transmission Provider, at a voltage schedule to be

provided by the Transmission Provider following testing. Voltage will typically be required to operate between 1.00 and 1.04 per unit.

- Operate the Generating Facility with a voltage droop.
- Have any Transmission Provider required studies, such as a voltage coordination study, performed and provide results to Transmission Provider. Any additional requirements identified in these studies will be the responsibility of the Interconnection Customer.
    - A voltage coordination study will be required with the other large solar facilities already operating in this area.
- Meet the Federal Energy Regulatory Commission (FERC) and WECC low voltage ride-through requirements as specified in the interconnection agreement.
- Provide test results to the Transmission Provider verifying that the inverters for this Project have been programmed to meet all PRC-024 requirements rather than manufacturer IEEE distribution standards.
- Provide the Transmission Provider a standard model from the WECC Approved Dynamic Model Library.
- Provide the Transmission Provider the manufacturer Electromagnetic Transient Modeling ("EMT") model a minimum of 180 days prior to Commercial Operation.
- Provide the Transmission Provider documentation demonstrating registration with NERC as the Generator Owner ("GO") and Generator Operator ("GOP") for the Large Generating Facility. Confirmation that registration documentation has been submitted to NERC must be provided prior to initial synchronization. Confirmation of registration with NERC must be provided within 30 days of Commercial Operation and be maintained throughout the lifetime of the Interconnection Agreement of the Large Generating Facility will be disconnected.
- Design the Generating Facility control system such that it can receive an analog output from the Transmission Provider for setpoint control and provide an analog input back to the Transmission Provider on the status of the setpoint.
- Provide a separate graded, grounded and fenced area along the perimeter of the Interconnection Customer's collector substation for the Transmission Provider to install a control building. The site will share a fence and ground grid with the Interconnection Customer collector substation and have separate, unencumbered access for the Transmission Provider. Fencing, gates and road access shall meet Transmission Provider standards. The Interconnection Customer shall provide a Transmission Provider approved easement for its control building.
- Perform a CDEGS grounding analysis for both the collector substation site and the Transmission Provider control building and provide the results to the Transmission Provider.

- Provide permanent AC power to the Transmission Provider's control building.
- Design, procure, and install a Transmission Provider approved data concentrator to transfer data from the collector substation to the Transmission Provider's RTU located at the collector substation control building via an optical fiber communications circuit in DNP3 protocol. The Transmission Provider will input and hold the second level passwords for the data concentrator. Password control ensures the Transmission Provider is aware of and is accepting of the changes being requested by the Interconnection Customer.
- Design, procure and install conduit and control cabling and hard wire the Interconnection Customer's source devices to the data concentrator. Replicated values are not acceptable.
- Provide the following points which are based on the Interconnection Customer's most recent design information. Please note that this list of points could change if the Interconnection Customer's final design changes:

  Analogs:
  - Global Horizontal Irradiance (GHI)
  - Average Plant Atmospheric Pressure (Bar)
  - Average Plant Temperature (Celsius)
  - Max Generator Limit MW (set point control)
  - Potential Power MW

  Status:
  - 34.5 kV Circuit Breaker 1
  - 34.5 kV Circuit Breaker 2
  - 34.5 kV Battery Circuit Breaker
  - 34.5 kV Transformer Breaker
  - 115 kV Transformer Breaker
  - 34.5 kV Cap Bank Circuit Breaker

  Analogs from low side meters at the TCS-43 collector site (3 Primary and 3 Backup):
  - Net Generation real power MW
  - Net Generator reactive power MVAR
  - Energy Register KWH
  - A phase 34.5 kV voltage
  - B phase 34.5 kV voltage
  - C phase 34.5 kV voltage

  Analogs from high side meters at TCS-43 collector site (1 Primary and 1 Backup):
  - Net Generation real power MW
  - Net Generator reactive power MVAR
  - Energy Register KWH
  - A phase 115 kV voltage
  - B phase 115 kV voltage
  - C phase 115 kV voltage

- Procure and install control cable from the Interconnection Customer's data concentrator to the Transmission Provider's collector substation control building. Leave a sufficient quantity of cable to allow the Transmission Provider to terminate the cable onto its communications equipment.
- Procure and install Transmission Provider approved H-Frame structures for the Transmission Provider's instrument transformers. The installation locations shall be coordinated with the Transmission Provider.
- Install complete conduit and control cable provided by the Transmission Provider from each of the Transmission Provider's instrument transformers to the Transmission Provider's collector substation control building. Leave sufficient quantities of control cable to allow the Transmission Provider to terminate the cable inside its control building.
- Install the Transmission Provider provided instrument transformers.
- Procure and install disconnect switches on each side of each of the instrument transformers.
- Provide Transmission Provider unfettered and maintained access to the Transmission Provider's instrument transformers.
- Procure and install Transmission Provider approved fiber optic cable from a splice to the Transmission Provider's fiber installed on the Interconnection Customer tie line to the Transmission Provider's collector substation control building. Leave a sufficient quantity of cable to allow the Transmission Provider to terminate the cable onto its communications equipment.
- Provide Transmission Provider approved easements for all Transmission Provider Interconnection Facilities to be installed in the Interconnection Customer's collector substation.
- Arrange for and provide permanent retail service for power that will flow from the Transmission Provider's system when the Project is not generating with the retail service provider in this area. If the retail provides is not Pacific Power this will require the retail service provider to obtain transmission service from the Transmission Provider. These arrangements must be in place prior to approval for backfeed.
- Provide any construction or backup retail service necessary for the Project.
- Provide a professional engineer ("PE") stamped maintenance plan package for all Interconnection Customer protective equipment prior to energization.

5.1.2 Transmission Provider to be Responsible For

- Provide the Interconnection Customer the designated point at which the voltage is to be maintained and the associated voltage schedule.

- Identify any necessary studies that the Interconnection Customer must have performed.
- Install a control building on the property prepared by the Interconnection Customer.
- Procure and install a backup DC battery system for the Transmission Provider control building.
- Procure and install a communications racks and associated communications equipment in the Transmission Provider's control building.
- Coordinate with the Interconnection Customer on the location of the Transmission Provider's instrument transformers.
- Provide the Interconnection Customer the specifications for the instrument transmission installation structures.
- Procure and provide to the Interconnection Customer a set of 115 kV instrument transformers to be on installed on the high side of the main step-up transformer
- Design, procure and install a set of 115 kV revenue metering equipment including metering panels, primary and secondary revenue quality meters, test switches, junction boxes and secondary metering wire.
- Procure and provide to the Interconnection Customer three sets of 34.5 kV instrument transformers to be on installed on each of the three collector system strings.
- Design, procure and install three sets of 34.5 kV revenue metering equipment including metering panels, primary and secondary revenue quality meters, test switches, junction boxes and secondary metering wire.
- Provide the control cable to be installed by the Interconnection Customer from the instrument transformers to the Transmission Provider's control building and coordinate on the location of the cable.
- Terminate the fiber optic cable provided by the Interconnection Customer in the control building communications panel.
- Establish an Ethernet connection for retail sales and generation accounting via the MV-90 translation system.

5.2 Interconnection Customer Tie Line Requirements

The following outlines the design, procurement, construction, installation, and ownership of equipment associated with the radial line connecting the Interconnection Customer's Generating Facility to the Interconnection Customer's shared facilities substation.

5.2.1 Interconnection Customer to be Responsible For

- Procure all necessary permits, property rights and/or rights of way for the new transmission line between the Interconnection Customer's collector and shared facilities substations. Interconnection Customer

will be responsible for all required regulatory or compliance reporting associated with its transmission tie line facilities.

- Design, construct, own and maintain the 115 kV transmission tie line between the Interconnection Customer's collector and shared facilities substations.
- If line crossings of existing Transmission Provider lines are required coordinate with the Transmission Provider to ensure all clearance requirements are met.
- Install Transmission Provider approved fiber optic cable from the collector substation to the POI substation to provide the required data to the Transmission Provider. Leave a sufficient quantity to allow the Transmission Provider to splice the fiber to the fiber running from the POI substation control building.

5.2.2 TRANSMISSION PROVIDER TO BE RESPONSIBLE FOR

- As necessary, coordinate with the Interconnection Customer on any line crossings.
- Provide the Interconnection Customer the specifications for the fiber optic cable to be installed on the tie line.

5.3 Interconnection Customer Shared Facilities Substation

The following outlines the design, procurement, construction, installation, and ownership of equipment at the Point of Interconnection.

5.3.1 INTERCONNECTION CUSTOMER TO BE RESPONSIBLE FOR

- Procure all necessary permits, lands, rights of way and easements required for the construction and continued maintenance of the Interconnection Customer's shared facilities substation.
- Design, procure, construct, own and maintain the Interconnection Customer's shared facilities substation. The shared facilities substation shall be designed and constructed such that the ground grid can be connected to the POI substation ground grid to support the installation of a Transmission Provider owned and maintained bus differential scheme. The Interconnection Customer is responsible to ensure the ground grid design supports safe step and touch potentials.
- Design, provide and install conduits between the Interconnection Customer shared facilities substation and the marshalling cabinet to be installed just inside the fence of the POI substation to support copper circuits installed between the facilities.
- Design, provide and install control cabling (number and size TBD) and hard wire the Interconnection Customer's source devices to the marshalling cabinet. Replicated values are not acceptable.
- Provide and install a set of current transformers from the 115 kV devices to be fed into the bus differential relays with a maximum current transformer ratio matching the maximum CT ratio of the

breakers at the POI substation. Provide and install conduit and cabling to the POI substation marshalling cabinet with these outputs.

- Provide the following data points from the collector substation via hardwire to the marshalling cabinet located in the POI substation. Please note that these points are based on the most recent design information provided by the Interconnection Customer and could change based on final design:
  Status:
  - 115 kV Circuit Switcher 1
  - 115 kV Circuit Switcher 2
  - 115 kV Circuit Switcher 3
  - 115 kV Circuit Switcher 4
  - 115 kV Circuit Switcher 5
  - 115 kV Circuit Switcher 6
  - 115 kV Facility Circuit Breaker
- Provide and install conductor, shield wire and line hardware in sufficient quantities to allow the Transmission Provider to terminate the segment running from the transformer substation deadend structure into the POI substation deadend structure. The last segment will be owned by the Transmission Provider.

5.3.2 TRANSMISSION PROVIDER TO BE RESPONSIBLE FOR

- Provide the Interconnection Customer the necessary specifications to allow the ground grid of the Interconnection Customer's shared facilities substation and the POI substation to be tied together.
- Provide the Interconnection Customer the necessary specifications for the bus between the Interconnection Customer's shared facilities substation and the new POI substation to be connected.
- Coordinate with Interconnection Customer on the location, size, and types of conduits and control cables between the POI substation and the shared facilities substation.

5.4 Point of Interconnection

The following outlines the design, procurement, construction, installation, and ownership of equipment at the Point of Interconnection.

5.4.1 INTERCONNECTION CUSTOMER TO BE RESPONSIBLE FOR

- Coordinate with the Transmission Provider to test and commission the communications system between the Interconnection Customer's collector and shared facilities substation and the Ponderosa substation.

5.4.2 TRANSMISSION PROVIDER TO BE RESPONSIBLE FOR

- Procure the necessary permits and/or property rights to allow for the expansion of the substation to the east.

- Procure the necessary permits and/or property rights to allow for the rerouting of the current access road running along the east side of substation.
- Design, procure and construct, own and maintain the equipment to create new line positions for the Interconnection Customer's tie line, the new line to Corral substation and a new transformer which will include the following major pieces of equipment:
    - (1) 230/115 kV 250 MVA Transformer
    - (1) 230 kV Horizontal Mount Vertical Break Group Operated Switch
    - (1) 125 VDC Motor Operator
    - (3) 115 kV CCVT
    - (7) 115 kV Vertical Break Group Operated Switch
    - (3) 145 kV Circuit Breakers
    - (1) 28' X 40' Control Building
    - (1) 125 VDC Battery Bank
    - (2) 145 kV Circuit Breakers
    - (3) 115 kV Vertical Break Group Operated Switches
    - (3) CT/VT Combination Metering Units
    - (3) 115 kV Surge Arresters
    - (1) 125 VDC Motor Operator
    - (1) 115 kV, Vertical Mount Vertical Break Group Operated Line Disconnect Switch with Ground Switch.
- Terminate the last bus/line segment running from the Interconnection Customer's shared facilities substation deadend structure into the POI substation deadend structure using Interconnection Customer provided and installed conductor, shield wire and line hardware.
- Terminate the new transmission line running from Corral substation.
- Design, procure and install a marshalling cabinet near the Interconnection Customer's shared facilities substation shared fence line.
- Provide and install conduit and control cabling between the marshalling cabinet and the control building bus differential cabinet.
- Design, procure and install a bus differential relay system for the connection to the Interconnection Customer's shared facilities substation.
- Procure and install a relay for under/over voltage and over/under frequency protection of the system.
- Modify the north and south bus differential logic for the expansion of the new 115 kV bay breakers.
- Design, procure and install a line current differential relay system for the new line to Corral substation.
- Design, procure and install a redundant transformer differential relay system for the new transformer.

- Include the following data points from the new POI substation into the new substation RTU:
  Analogs:
  - Net Generation real power MW
  - Net Generator reactive power MVAR
  - Energy Register KWH
  - A phase 115 kV voltage
  - B phase 115 kV voltage
  - C phase 115 kV voltage
- Install conduit and fiber optic cable from the control building to the shared fence line with the Interconnection Customer's shared facilities substation and splice to the Interconnection Customer's fiber.
- Procure and install the necessary communications equipment for protection and data provision to the Transmission Provider's existing communications network.
- Design, procure and install 115 kV revenue metering equipment including two (2) revenue quality meters, test switch, instrument transformers, metering panels, junction box and secondary metering wire.
- Provide and install an Ethernet connection for retail sales and generation accounting via the MV-90 translation system.

5.5 Other

The following outlines the design, procurement, construction, installation, and ownership of equipment past the Point of Interconnection.

5.5.1 Interconnection Customer to be Responsible For

- Bonneville Power Administration ("BPA") Requirements
  - If deemed necessary by the Transmission Provider and BPA, execute any necessary agreements with BPA to facilitate any requirements on BPA's system.

5.5.2 Transmission Provider to be Responsible For

- Corral-Ponderosa Transmission Line
  - Procure and install conductor on the existing double circuit structures between Corral and Ponderosa substation to energize a new 230 kV transmission line.

- Corral Substation
  - Procure the necessary permits and/or property rights to allow for the expansion of the substation.
  - Design, procure and construct, own and maintain the equipment to create a new line position for the new line from Ponderosa substation which will include the following major pieces of equipment:

- (2) 230 kV Circuit Breaker
- (4) 230 kV Horizontal Mount Vertical Break Group Operated Switches
- (1) 230 kV Vertical Mount Vertical Break Group Operated Switch
- (1) 125 VDC Motor Operator
- (3) 230 kV CCVT
- (3) 230 kV Lightning Arresters

- Design, procure and install a line current differential relay system for the new line to Ponderosa substation.

- Bonneville Power Administration
  - Coordinate with BPA to ensure any requirements for BPA's system required to support the Interconnection Customer's Interconnection Request are in place prior to the commencement of generation activities.

- System Operations
  - Update databases to include the Interconnection Customer's Generating Facility along with Interconnection Facilities and Network Upgrades.

6.0 COST ESTIMATE

The following estimate represents only scopes of work that will be performed by the Transmission Provider. Costs for any work being performed by the Interconnection Customer are not included.

TCS-43 Collector Substation $350,000
Control building, metering and communications equipment

Shared Costs

The following estimated costs are the Interconnection Customer's proportional share of the overall estimated costs for the entire cluster area in which this Interconnection Request resides.

Shared Facility Substation $5,000
Relay coordination

Ponderosa Substation $2,976,000
Expansion, line positions, transformer

Corral Substation $625,000
Line position

Corral-Ponderosa Transmission Line $39,000
Install conductor for second 230 kV transmission line

Total	**$3,994,000**

*Any distribution line modifications identified in this report will require a field visit analysis in order to obtain a more thorough understanding of the specific requirements. The estimate provided above for this work could change substantially based on the results of this analysis. Until this field analysis is performed the Transmission Provider must develop the project schedule using conservative assumptions. The Interconnection Customer may request that the Transmission Provider perform this field analysis, at the Interconnection Customer's expense, prior to the execution of an Interconnection Agreement in order to obtain more cost and schedule certainty.

Note: Costs for any excavation, duct installation and easements shall be borne by the Interconnection Customer and are not included in this estimate. This estimate is as accurate as possibly given the level of detailed study that has been completed to date and approximates the costs incurred by Transmission Provider to interconnect this Generator Facility to Transmission Provider's electrical distribution or transmission system. The Interconnection Customer will be responsible for all actual costs, regardless of the estimated costs communicated to or approved by the Interconnection Customer.

7.0 SCHEDULE

Execute Interconnection Agreement	February 3, 2023
Provision of Financial Security	March 17, 2023
Provide Shared Facilities Agreement	April 7, 2023
Interconnection Customer Approval for Transmission Provider to Commence Engineering and Procurement Activities	April 7, 2023
*Interconnection Customer Initial Design Package Provided	May 5, 2023
Transmission Provider Engineering & Procurement Commences	May 15, 2023
Interconnection Customer Executes Construction Agreement with Bonneville Power Administration	June 2, 2023
Energy Imbalance Market Modeling Data Submittal	June 2, 2023
Interconnection Customer Property/Permits/ROW Procured	December 1, 2023
Contingent Facilities Complete	December 15, 2023
Transmission Provider Property/Permits/ROW Procured	January 5, 2024
*Interconnection Customer Final Design Package Provided	February 2, 2024

Transmission Provider Engineering Design Complete	June 14, 2024
Interconnection Customer Commences Voltage Coordination Study	June 17, 2024
Interconnection Customer Approval for Transmission Provider to Commence Construction Activities	July 12, 2024
Transmission Provider Construction Begins	August 19, 2024
Interconnection Customer Maintenance and Commissioning Plans Provided	January 10, 2025
Interconnection Customer and Transmission Provider Construction Complete	June 6, 2025
**Bonneville Power Administration Construction Complete	July 7, 2025
Transmission Provider Commissioning Activities Complete	August 8, 2025
Transmission Provider Commissioning Document Review Complete	August 15, 2025
Interconnection Customer's Facilities Receive Backfeed Power	August 18, 2025
Initial Synchronization/Generation Testing	September 1, 2025
Commercial Operation	November 7, 2025

*Interconnection Customer initial design package shall include final generating facility location, inverter/turbine selection, basic protection package, tie line route and collector system locations and data as applicable. Interconnection Customer final design package shall include PE stamped issued for construction ("IFC") drawings for generating facility, collector substation, tie line as well as an updated PSS/e model and updated WECC approved model, electromagnetic transient ("EMT") model and a detailed short circuit model of its generation system using the ASPEN OneLine short circuit simulation program as applicable. The WECC model parameters must be adjusted to reflect the plant's actual anticipated performance. The plant controller must be included in the model. If there is to be coordination between facilities or a master VAR controller, this must be included in the detailed WECC dynamic model, as well as in the PSS/e user-written model.

**Any delays in the milestones associated with Bonneville Power Administration should be assumed to impact all remaining milestones on a day for day basis.

8.0 Participation by Affected Systems

Transmission Provider has identified the following affected systems: Bonneville Power Administration

A copy of this report will be shared with each Affected System.

9.0 APPENDICES

Appendix 1: Higher Priority Requests
Appendix 2: Contingent Facilities
Appendix 3: Property Requirements

9.1 APPENDIX 1: HIGHER PRIORITY REQUESTS

All active higher priority transmission service and/or generator interconnection requests will be considered in this study and are identified below. If any of these requests are withdrawn, the Transmission Provider reserves the right to restudy this request, as the results and conclusions contained within this study could significantly change.

Transmission/Generation Interconnection Queue Requests considered:

Responsible Utility	Project Number	POI:	Size (MW)
PAC	Q443	Ponderosa 115 kV bus	34.56
PAC	Q731	Stearns Butte 115 kV bus	55
PAC	Q734	Ponderosa 115 kV bus	63.5
PAC	Q824	Ponderosa 115 kV bus	40
Distributed Energy Resources (DER) – in service			
PAC	DER	Prineville sub (transformer 1 aggregate)	0.897
PAC	DER	Prineville sub (transformer 2 aggregate)	0.188
PAC	DER	Powell Butte substation	1.355
PAC	DER	Redmond sub(transformer 1 aggregate)	0.801
PAC	DER	Redmond sub (transformer 2 aggregate)	0.757
Foreign Utility Requests:			
BPA	G0501	Captain Jack 500 kV substation	1100
BPA	G0527	Fort Rock 500 kV substation	105
BPA	G0539	BPA Ponderosa 230 kV Bus	600
BPA	G0640	Captain Jack 500 kV substation	238.5
PGE	QF17-068	Pelton-Round Butte 230 kV line	65
PGE	QF19-081	Redmond - Round Butte 230 kV line	53

9.2 Appendix 2: Contingent Facilities

The following Interconnection Facilities and/or upgrades to the Transmission Provider's system are Contingent Facilities for the Interconnection Customer's Interconnection Request and must be in service prior to the commencement of generation activities:

Transmission Provider Planned Projects:

- New Houston Lake-Ponderosa 115 kV transmission line (Q4 2023).

9.3 APPENDIX 2: PROPERTY REQUIREMENTS

Property Requirements for Point of Interconnection Substation

Requirements for rights of way easements
Rights of way easements will be acquired by the Interconnection Customer in the Transmission Provider's name for the construction, reconstruction, operation, maintenance, repair, replacement and removal of Transmission Provider's Interconnection Facilities that will be owned and operated by PacifiCorp. Interconnection Customer will acquire all necessary permits for the project and will obtain rights of way easements for the project on Transmission Provider's easement form.

Real Property Requirements for Point of Interconnection Substation
Real property for a point of interconnection substation will be acquired by an Interconnection Customer to accommodate the Interconnection Customer's project. The real property must be acceptable to Transmission Provider. Interconnection Customer will acquire fee ownership for interconnection substation unless Transmission Provider determines that other than fee ownership is acceptable; however, the form and instrument of such rights will be at Transmission Provider's sole discretion. Any land rights that Interconnection Customer is planning to retain as part of a fee property conveyance will be identified in advance to Transmission Provider and are subject to the Transmission Provider's approval.

The Interconnection Customer must obtain all permits required by all relevant jurisdictions for the planned use including but not limited to conditional use permits, Certificates of Public Convenience and Necessity, California Environmental Quality Act, as well as all construction permits for the project.

Interconnection Customer will not be reimbursed through network upgrades for more than the market value of the property.

As a minimum, real property must be environmentally, physically, and operationally acceptable to Transmission Provider. The real property shall be a permitted or able to be permitted use in all zoning districts. The Interconnection Customer shall provide Transmission Provider with a title report and shall transfer property without any material defects of title or other encumbrances that are not acceptable to Transmission Provider. Property lines shall be surveyed and show all encumbrances, encroachments, and roads.

Examples of potentially unacceptable environmental, physical, or operational conditions could include but are not limited to:

1. Environmental: known contamination of site; evidence of environmental contamination by any dangerous, hazardous or toxic materials as defined by any governmental agency; violation of building, health, safety, environmental, fire, land use, zoning or other such regulation; violation of ordinances or statutes of any governmental entities having jurisdiction over the property; underground or above ground storage tanks in area; known remediation sites on property; ongoing mitigation activities or monitoring activities; asbestos; lead-based paint, etc. A

phase I environmental study is required for land being acquired in fee by the Transmission Provider unless waived by Transmission Provider.

2. Physical: inadequate site drainage; proximity to flood zone; erosion issues; wetland overlays; threatened and endangered species; archeological or culturally sensitive areas; inadequate sub-surface elements, etc. Transmission Provider may require Interconnection Customer to procure various studies and surveys as determined necessary by Transmission Provider.

Operational: inadequate access for Transmission Provider's equipment and vehicles; existing structures on land that require removal prior to building of substation; ongoing maintenance for landscaping or extensive landscape requirements; ongoing homeowner's or other requirements or restrictions (e.g., Covenants, Codes and Restrictions, deed restrictions, etc.) on property which are not acceptable to the Transmission Provider.