

NETWORK OPERATING AGREEMENT

executed by the

UNITED STATES OF AMERICA

DEPARTMENT OF ENERGY

ACTING BY AND THROUGH THE

BONNEVILLE POWER ADMINISTRATION

and

<<CUSTOMER LONG NAME>>

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This NETWORK OPERATING AGREEMENT (Agreement) is entered into by the UNITED STATES OF AMERICA, Department of Energy, acting by and through the BONNEVILLE POWER ADMINISTRATION (Transmission Provider) and <<CUSTOMER LONG NAME>> (Network Customer), hereinafter individually also referred to as “Party” and collectively as “Parties.”

The Transmission Provider provides Network Integration Transmission Service under the Transmission Provider’s Open Access Transmission Tariff (Tariff) as it may be amended or replaced from time to time.

The Parties have entered into a Service Agreement for Network Integration Transmission Service (Service Agreement), dated as of <date> and amended or replaced from time to time in which the Transmission Provider will provide Network Integration Transmission Service for the Network Customer.

The provision of Ancillary Services will be addressed in the Service Agreement.

The Network Customer shall either: (i) operate as a Balancing Authority Area under applicable requirements of NERC, WECC, and NWPP, and satisfy its own Balancing Authority Area Requirements, including all necessary Ancillary Services; (ii) satisfy its Balancing Authority Area requirements, including all necessary Ancillary Services, by contracting with the Transmission Provider, or (iii) satisfy its Balancing Authority Area requirements, including all necessary Ancillary Services, by contracting with another entity which satisfies the applicable reliability requirements of NERC, WECC, and NWPP.

The Parties recognize that the Transmission Provider’s Transmission system is directly or indirectly interconnected with transmission systems owned or operated by others and the flow of power and energy between such systems shall be controlled by the physical and electrical characteristics of the facilities involved and the manner in which they are operated.

Part of the power and energy being delivered under this Agreement and the Service Agreement may flow through such other systems rather than through the Transmission Provider’s facilities. ~~The Parties shall determine methods and take appropriate actions to assure capability for delivery of power and energy at the points of receipt and delivery, and at additional or alternate points of receipt and delivery as established by the Parties.~~

~~The Parties agree to adhere to Good Utility Practice as defined in the Tariff, including all applicable reliability criteria as observed in the region.~~

The Transmission Provider has established technical standards, guidelines, policies, and procedures (Standards) for planning, construction, maintenance, and operation of the Transmission Provider’s grid, interties, and interconnections in accordance with the Tariff. Standards are available from the Transmission Provider and may be amended from time to time. Standards include, but are not limited to, the following documents or their successors:

- Technical Requirements for Interconnection to the BPA Transmission Grid;
- Metering Application Guide (MAG);

- Responsibilities and Technical Requirements Guide for Transmission Customer Owned Meters;
- BPA's Facility Ownership and Cost Assignment Guidelines; and
- BPA Outage Planning and Coordination Policy.

The Transmission Provider has established business practices (Practices) in accordance with the Tariff. Practices are available on the Transmission Provider's Website. Practices may be amended from time to time in accordance with the Transmission Provider's business practice process.

There is a need to identify operational requirements related to Network Integration Transmission Service over the Transmission Provider's Transmission system.

The Parties therefore agree as follows:

1. Term of Agreement

This Agreement will be effective at 0000 hours on the date that this Agreement has been signed by both Parties (Effective Date), and shall remain in effect through the term of the Service Agreement.

In the event that the Agreement is terminated, all liabilities incurred hereunder are hereby preserved until satisfied.

2. Exhibits

The following Exhibits are hereby incorporated as part of this Agreement:

- (a) Exhibit A Related Agreements
- (b) Exhibit B Other Operational or Technical ~~Interconnection~~ Requirements
- (c) Exhibit C Remedial Action Schemes (RAS) and Relay Schemes

3. Obligations of the Parties

The Parties to this Agreement shall:

- (a) Agree to adhere to Good Utility Practice as defined in the Tariff, including all applicable reliability criteria as observed in the region.
- (b) Determine methods and take appropriate actions to assure capability for delivery of power and energy at the points of receipt and delivery, and at additional or alternate points of receipt and delivery as established by the Parties.

~~(a)~~(c) Operate and maintain equipment¹ necessary for interconnecting the Network Customer with the Transmission Provider's Transmission system including, but not limited to, remote terminal units, metering, communications equipment and relaying equipment. Each party is expected to maintain their own equipment unless otherwise agreed to.

~~(b)~~(d) Transfer data² ~~between their respective control centers~~ as required to maintain reliability of the Transmission Provider's Transmission system.

~~(e)~~(e) Use software programs required for data links and ~~resource constraint~~ dispatching for operational needs.

~~(d)~~(f) Exchange data on forecasted loads and resources, and technical data necessary for planning and operation.

~~(e)~~(g) Address other technical and operational considerations required for Tariff implementation, including scheduling protocols.

4. Definitions

Unless otherwise defined herein, capitalized terms refer to terms defined in the Tariff, Rate Schedules, or *Glossary of Terms Used in NERC Reliability Standards* in effect at the time.

(a) NERC
North American Electric Reliability Corporation, or its successor.

(b) NWPP
The Northwest PowerPool, or its successor.

(c) Operational Constraints
Limitations on the ability of the Transmission Provider's Transmission system to operate due to any system emergency, loading condition, or maintenance outage on the Transmission Provider facilities, or on facilities of an interconnected utility, that makes it prudent to reduce Transmission Provider's Transmission system loadings, whether or not all facilities are in service.

¹-Necessary equipment includes, but is not limited to, remote terminal units, metering, communications, telemetering and relaying equipment.

²-Data may include, but is not limited to, data pertaining to instantaneous Spinning and Non-Spinning Operating Reserves, heat rates, fuel costs and operational characteristics of designated resources, generation schedules for resources, interchange schedules, resource outputs, voltage schedules, flows of real and reactive power, loss factors, switch status, breaker status, megawatt (MW)/megaVAR flow on lines, bus voltages, transformer taps and other Supervisory Control and Data Acquisition System (SCADA) and real time data.

- (d) WECC
The Western Electricity Coordinating Council, or its successor.

5. **Interconnected Facility Requirements¹**

(a) Ownership

- (1) Equipment and facilities owned by one Party and installed on the property of the other Party shall remain the property of the owner, except as noted in this Agreement.
- (2) A Party must identify its equipment and facilities installed on the other Party's property. Identification of ownership must be made by affixing suitable markers with the owner's name. The Parties may jointly prepare an itemized list of the aforementioned equipment and facilities.
- (3) Each Party agrees to be responsible for the cost of complying with all applicable Federal, State, and local environmental laws for its own equipment and facilities.

(b) Safety Design

The Transmission Provider requires clearance of equipment during maintenance, modification, and testing. In accordance with the Transmission Provider's Standards and Practices, facility interconnections between the Transmission Provider and the Network Customer are to be designed and constructed to allow clearance of equipment using isolation devices. Isolation devices must produce a visible air gap between the energized facilities and the equipment to be maintained, modified, or tested. Any operating procedures associated with this interconnection must comply with OSHA Standard 29 CFR 1910.269(m) and also the ANSI/IEEE National Electric Safety Code as amended or replaced from time to time.

(c) Access

- (1) Each Party grants permission, subject to site requirements, to the other to enter its property to perform operations, maintenance, meter reading, inspection, or removal of their respective equipment and facilities installed on the other Party's property.
- (2) If unescorted access is prohibited, the Parties shall allow escorted access during normal business hours. Unescorted access shall be facilitated through separate agreement.

¹ See [Exhibits for additional customer-specific agreements or requirements.](#)

- (3) Within the limitations of applicable law, in accessing equipment or facilities on the property of another, each Party is responsible for injury or damage to person or property from the intentional actions or negligent acts of its own employees and agents.

6. Resource and Interconnection Principles and Requirements

(a) Plan, Construct, Operate and Maintain Facilities

The Network Customer shall plan, construct, operate and maintain its facilities and system that interconnect with the Transmission Provider's Transmission system in accordance with Good Utility Practice, including, but not limited to, all applicable requirements of (1) NERC, WECC, NWPP, and any other applicable reliability authority; and (2) the Transmission Provider's Standards and Practices.

(b) System Protection

The Parties acknowledge their obligations to respond to contingencies on the Transmission Provider's Transmission system and on systems directly and indirectly interconnected with the Transmission Provider's Transmission system, in accordance with the Transmission Provider's Tariff, ~~Practices, and Standards, and Practices~~. The Parties intend to meet this obligation by implementing RAS or other relay schemes which may be identified in the attached Exhibit C. ~~Exhibit C may be revised by agreement of the Parties, which agreement shall not be unreasonably conditioned or withheld so long as the proposed change is in accordance with the terms and conditions of the Tariff and Good Utility Practice.~~

7. Customer Information Requirement

Network Customer shall provide annually to the Transmission Provider, plans of any expansions of, or upgrades to, its owned generation or transmission facilities (lines, transformers, reactive equipment, load forecasts, etc.) for each of the subsequent ten years.

Requested information may include:

(a) Annual and Ongoing Data Coordination Requirements:

- (1) Annual updates of load and resource forecasts.
- (2) Any additional information required from the Network Customer as required by applicable reliability standards, or specified by the Transmission Provider's Tariff, Standards, and Practices.

(b) Annual Data Exchange Technical Data Details:

- (1) The Network Customer shall review, validate, and respond to the Transmission Provider's annual data exchange requests that are applicable to the Network Customer:

- (A) The Network Customer must respond on or before the reasonable deadlines set by the Transmission Provider.
- (B) Technical data requirements may include the following:
 - (i) Steady-State, Dynamics, Geomagnetic Induced Current (GIC), and Short Circuit data.
 - (ii) One lines, facility ratings, facility rating methodology.
 - (iii) Date of data validation, notification of latest version of files on record.
 - (iv) Other information reasonably requested for modeling purposes.

8. Power Quality

Requirements and information regarding Power Quality can be found in the Transmission Provider's Standards and Practices.

9. Service Interruptions

(a) Outage Coordination

~~The Parties may temporarily curtail, reduce or shift deliveries of electric power if any such Party determines that such curtailment, reduction or load shift is necessary or desirable in case of system emergencies, personnel safety, or Operational Constraints on the system of either Party, or to install equipment in, make repairs to, make replacement within, conduct investigations and inspections of, or perform other maintenance work on the equipment or facilities of either Party. To the extent reasonable or appropriate, the Parties shall use temporary facilities or equipment to minimize the effect of any such interruption, reduction or load shift. Outage planning and coordination requirements and roles may be found in the Transmission Provider's Standards. Parties must request and coordinate outages in accordance with the Tariff and the Transmission Provider's Standards and Practices.~~

~~Outage and Load Shift Notification~~

~~The Network Customer must submit an outage and load shift report concerning any such curtailment, reduction or load shift on its transmission system to the Transmission Provider within five (5) business days of such curtailment, reduction or load shift. Reports may be made as identified on the Transmission Provider's website. On receipt of the Network Customer's report, the Transmission Provider shall adjust the Network Customer's billing determinants in accordance with the Transmission Provider's billing procedures. If the Network Customer does not submit the report within five (5) business days of the curtailment, reduction or load shift, the Transmission Provider shall assess charges based on available data.~~

10. Emergency Planning and Operation

- (a) The Transmission Provider shall be responsible for planning, coordinating, and implementing emergency operation (NERC EOP) schemes including Disturbance Reporting (EOP-4), System Restoration (EOP-5), Geomagnetic Disturbances (EOP-10), and the Emergency Operating Plan (EOP-11). There may be additional schemes that meet the NWPP, WECC, and applicable reliability authority planning objectives. If the Transmission Provider identifies reliability objectives beyond the NWPP, WECC, and applicable reliability authority planning objectives, they shall be communicated to the Network Customer.
- (b) The Network Customer shall:
 - (1) Participate in the development and implementation of Load Shedding programs for system security;
 - (2) Install and maintain the required Load Shedding relays, including under-frequency and under-voltage relays as reasonably determined by Transmission Provider to meet compliance obligations, provided, that the Network Customer can instead request that the Transmission Provider install such relays on the Transmission Provider's facilities that serve the Network Customer; and
 - (3) Participate in system restoration planning.
- (c) Additional information regarding Emergency Planning and Operation can be found in the Transmission Provider's Standards and Practices.

11. Metering Information, Costs, and Requirements

- (a) The Network Customer shall review information and follow requirements related to metering found in the Transmission Provider's Standards and Practices.
- (b) Metering of Existing Facilities:

The Transmission Provider shall be responsible for costs of all Transmission Provider-required new meter installation or meter replacements at a Network Customer facility existing on the Effective Date of this Agreement. The Network Customer may assume this responsibility by mutual agreement of the Parties.

The Network Customer shall be responsible for the costs of:

- (1) Any meter replacement or new installation at points of delivery which are not required to achieve the best overall plan of service (convenience points of delivery as defined in the Transmission Provider's Standards and Practices);
- (2) Any meters needed because the Network Customer changes Balancing Authorities or is displacing transmission from the Transmission Provider;
- (3) Any meters requested by the Network Customer; and

- (4) The supporting equipment to the metering system associated with supplying the Transmission Provider funded meter, including, but not limited to the instrument transformers for voltage potential and current flow (potential transformers and current transformers) and associated interconnected cabling, terminal blocks, and switches.
- (c) Network Customer is required to notify the Transmission Provider if there are any changes to the supporting equipment to the metering system (instrument transformers specifically), or to the meter the customer has assumed responsibility for, that may affect the meter readings in any way prior to installing the new components so that updated billing arrangements can be implemented.
- (d) Metering of New Network Customer Facilities:

The Transmission Provider shall be responsible for costs associated with installation of the Transmission Provider-approved metering at new facilities established after the Effective Date of this Agreement that are connected to the Transmission Provider's Transmission system.

The Network Customer shall be responsible for the costs of the Transmission Provider approved metering for:

- (1) All points of resource integration;
- (2) All Automatic Generation Control (AGC) interchange points; and
- (3) All other points of electrical interconnection, including convenience points of delivery.

12. Communications

Requirements and information regarding communications can be found in the Transmission Provider's Standards and Practices.

13. Network Operating Committee

(a) Membership

The Network Operating Committee shall be composed of at least one representative from each Network Customer and the Transmission Provider or their designated agents.

(b) Responsibilities

The Network Operating Committee shall meet at least once per year to coordinate operating criteria and other technical considerations required for implementation of Network Integration Transmission Service under Part 3 of the Tariff.

14. Standard Provisions

(a) Notices

Notices or requests made by either Party regarding these provisions shall be made to the representative of the other Party as indicated in the Service Agreement.

(b) Administration Of The Provisions

The Tariff and Service Agreement, as they are amended from time to time, are incorporated herein and made a part hereof, and are to be read together with this Agreement to determine the rights of the parties. In the event of any irreconcilable differences between the Tariff and this Agreement, the language of the Tariff shall govern.

(c) Amendments

Except where this Agreement explicitly allows one Party to unilaterally amend a provision or revise an exhibit, no amendment or exhibit revision to this Agreement shall be of any force or effect unless set forth in a written instrument signed by authorized representatives of each Party.

(d) Assignment

This Agreement is binding on any successors and assigns of the Parties. Neither Party may otherwise transfer or assign this Agreement, in whole or in part, without the other Party's written consent. Such consent shall not be unreasonably withheld.

(e) Dispute Resolution

Disputes arising under this Agreement are subject to the dispute resolution procedures set forth in the Tariff.

(f) Entire Agreement

This Agreement, including documents expressly incorporated by reference, constitutes the entire agreement between the Parties. It supersedes all previous communications, representations, or contracts, either written or oral, which purport to describe or embody the subject matter of this Agreement.

(g) Freedom of Information Act (FOIA)

The Transmission Provider may release information provided by the Network Customer to comply with FOIA or if required by any other Federal law or court order. Prior to releasing any such information, the Transmission Provider shall follow its then applicable procedures for notifying Parties that their information is subject to a FOIA request. For information that the Network Customer designates in writing as proprietary or marks as Critical Energy/Electric Infrastructure Information (CEII) according to applicable rules and regulations, the Transmission Provider will limit the use and dissemination of that information within the Transmission Provider to employees who need the information for purposes of this Agreement.

(h) Governing Law

This Agreement shall be interpreted, construed, and enforced in accordance with Federal law.

(i) No Third Party Beneficiaries

This Agreement is made and entered into for the sole benefit of the Parties, and the Parties intend that no other person or entity shall be a direct or indirect beneficiary of this Agreement.

(j) Section Headings

Section headings and subheadings appearing in this Agreement are inserted for convenience only and are not to be construed as interpretations of text.

(k) Uncontrollable Forces

The Parties shall not be in breach of their respective obligations to the extent the failure to fulfill any obligation is due to an Uncontrollable Force. "Uncontrollable Force" means an event beyond the reasonable control of, and without the fault or negligence of, the Party claiming the Uncontrollable Force, that prevents that Party from performing its contractual obligations under this Agreement and which, by exercise of that Party's reasonable care, diligence and foresight, such Party was unable to avoid. Uncontrollable Forces include, but are not limited to:

- (1) strikes or work stoppage;
- (2) floods, earthquakes, or other natural disasters; terrorist acts; and
- (3) final orders or injunctions issued by a court or regulatory body having competent subject matter jurisdiction which the Party claiming the Uncontrollable Force, after diligent efforts, was unable to have stayed, suspended, or set aside pending review by a court of competent subject matter jurisdiction.

Neither the unavailability of funds or financing, nor conditions of national or local economies or markets shall be considered an Uncontrollable Force. The economic hardship of either Party shall not constitute an Uncontrollable Force. Nothing contained in this provision shall be construed to require either Party to settle any strike or labor dispute in which it may be involved.

If an Uncontrollable Force prevents a Party from performing any of its obligations under this Agreement, such Party shall: (1) immediately notify the other Party of such Uncontrollable Force by any means practicable and confirm such notice in writing as soon as reasonably practicable; (2) use its best efforts to mitigate the effects of such Uncontrollable Force, remedy its inability to perform, and resume full performance of its obligation hereunder as soon as reasonably practicable; (3) keep the other Party apprised of such efforts on an ongoing basis; and (4) provide written notice of the resumption of performance. Written notices sent under this section must comply with Exhibit C.

(l) Waivers

No waiver of any provision or breach of this Agreement shall be effective unless such waiver is in writing and signed by the waiving Party, and any such waiver shall not be deemed a waiver of any other provision of this Agreement or any other breach of this Agreement.

15. Signatures

This Agreement may be executed in several counterparts, all of which taken together will constitute one single agreement, and may be executed by electronic signature and delivered electronically. The Parties have executed this Agreement as of the last date indicated below.

«CUSTOMER LONG NAME»

UNITED STATES OF AMERICA
Department of Energy
Bonneville Power Administration

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

«CUSTOMER LONG NAME» If opting out of the electronic signature:

By: _____

Name: _____

Title: _____

Date: _____

**EXHIBIT A
RELATED AGREEMENTS**

This exhibit identifies agreements between the Parties which may contain additional obligations related to this Network Operating Agreement. Agreements identified in this exhibit are for reference only.

Option 1:

This Exhibit A is not applicable at this time.

End Option 1

Option 2:

Table 1 Related Agreements

Related Agreement	Contract No.
Operation and Ownership Agreement	18TX-#####
Balancing Authority Area Services Agreement	17TX-#####

EXHIBIT B
OTHER OPERATIONAL OR TECHNICAL ~~INTERCONNECTION~~ REQUIREMENTS

This exhibit identifies additional requirements and obligations that may be unique to the Network Customer.

Option 1:

This Exhibit B is not applicable at this time.

End Option 1

Option 2:

Operational and Technical Requirements

(a) Requirement....

**EXHIBIT C
REMEDIAL ACTION SCHEMES (RAS) AND RELAY SCHEMES**

This exhibit identifies RAS and Relay Schemes that the Network Customer participates in.

Option 1:

Exhibit C, RAS and Relay Schemes, is not applicable at this time because [reason]. Transmission Provider will provide written notice to Network Customer of any future RAS or Relay Scheme requirements as system conditions warrant, and Network Customer will comply with those requirements.

Example reason: Network Customer is not included in a BPA Remedial Action Scheme (RAS) or Relay Scheme.

End of Option 1

Option 2:

Table #1 Remedial Action Schemes

Action (e.g. load, gen, reconfigure)	Related Contract No.
	18TX-#####
	17TX-#####

Table #2 Relay Schemes

Description or Action	Related Contract No.
	18TX-#####
	17TX-#####