

Memorandum of Agreement

For The
Management of Network Integration
Transmission Service for Delivery of
Federal Power To
Network Customer Loads

Posted May 16, 2019



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KRW*

Contract No. 11TX-15395

MEMORANDUM OF AGREEMENT
for the
MANAGEMENT OF NETWORK INTEGRATION TRANSMISSION SERVICE FOR
DELIVERY OF FEDERAL POWER TO NETWORK CUSTOMER LOADS
executed by the
UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
acting by and through the
BONNEVILLE POWER ADMINISTRATION TRANSMISSION SERVICES
and
BONNEVILLE POWER ADMINISTRATION POWER SERVICES

1. NATURE OF THIS DOCUMENT

- (a) This Memorandum of Agreement (MOA) establishes the procedures, terms, and conditions between the Bonneville Power Administration (BPA) Power Services (PS) and BPA Transmission Services (TS) for the management of transmission arrangements needed to deliver power from Federal resources, including Federal purchases from non-Federally owned resources, designated in accordance with Exhibit A to this MOA by the TS Network Integration Transmission Service (NT or Network Service) customers identified in Exhibit B that take NT Service pursuant to Part III of the BPA Open Access Transmission Tariff (Tariff), as it may be revised from time to time. Such procedures, terms and conditions shall be consistent with the Tariff, including the methodology for designating Network Resources. This MOA does not establish PS as a Transmission Customer under the Tariff. Other processes will provide for the flexible operation of the Federal Columbia River Power System (FCRPS) for service to Network Service Customers as discussed in Section 6. This MOA shall be implemented consistent with BPA's Standards of Conduct. This MOA replaces BPA's original Management of Federal Power Sales for Network Transmission Service Memorandum of Agreement, No. 02TX-10925, effective August 1, 2005 through October 1, 2011.
- (b) While developing this MOA, BPA also developed a related document entitled "Context and Perspectives Used in Developing the NT MOA," that provided context and guidance for replacing the original NT Memorandum of Agreement. BPA also developed principles relating to planning, operations and commercial practices of the FCRPS, including BPA Network Resources that serve NT load under the MOA.

SEP 28 2011

2. EFFECTIVE DATE AND TERM

- (a) This MOA shall be effective at 0000 hours on October 1, 2011 (Effective Date), and shall continue in effect until 0000 hours on October 1, 2028.
- (b) Throughout the term of this MOA, PS and TS shall meet at least once every two calendar years after the Effective Date to discuss this MOA, its implementation and all related processes, as may be identified in or added to Section 6. Any modifications to this MOA, including termination, shall be made consistent with Sections 4 and 11.

3. EXHIBITS

The Tariff, related business practices and the following exhibits are incorporated herein and made part of this MOA.

- (a) Exhibit A Designated BPA Network Resources and Points of Receipt.
- (b) Exhibit B Network Integration Transmission Service Agreements Served by BPA Network Resources Specified in This MOA.

4. EXHIBIT REVISIONS

- (a) Exhibit A shall be revised by written agreement to:
 - (1) Document the designation or undesignation ("indefinite termination" or "temporary termination" for periods greater than one year, consistent with Section 30.3 of the Tariff) of BPA Network Resources in Exhibit A, Section 1.
 - (2) Revise the Points of Receipt listed in Exhibit A, Section 2.
- (b) Exhibit B shall be revised by TS to update the list of Network Service Customers, Network Integration Transmission Service Agreements and the list of Network Service Customers that have agreed to have PS reserve and schedule their secondary network service.

5. DEFINITIONS

Capitalized terms not otherwise defined in this MOA are as defined in the Tariff.

- (a) "ATC Methodology" means TS' Available Transfer Capability Methodology, as it may be revised from time to time.
- (b) "BPA Network Resources" means the designated resources listed in Exhibit A. The BPA Network Resources include generating resources owned by the Federal government, or purchased by PS, and used to serve MOA Network Load.

- (c) "MOA Network Load" means the firm power load obligations of those TS Network Service Customers in any hour that have named their respective Regional Dialogue power sales agreements as their Designated Network Resources under their respective TS Network Integration Transmission Service Agreements and have designated PS as their resource provider in TS Network Integration Transmission Service Agreements.

6. PROCESSES RELATED TO THIS MOA

The following processes are related to the provision and operation of NT Service to MOA Network Load from BPA Network Resources:

(a) Available Transfer Capability (ATC) Methodology

TS shall maintain its ATC Methodology and post it on its OASIS and/or relevant BPA websites where documents are made available to the public. TS, in collaboration with PS, may determine revisions to and modify the ATC Methodology from time to time. TS shall provide for customer participation in ATC Methodology development as described in BPA's ATC Methodology Business Practice. TS shall determine, with ongoing input from PS, the firm transmission commitments for the delivery of BPA Network Resources to MOA Network Load. TS and PS recognize that the firm transmission commitments of the BPA Network Resources serving MOA Network Load are determined from generation dispatch and load forecast assumptions for the short-term operational horizon and the long-term planning horizon. The ATC Methodology is based on Federal and non-Federal generation dispatch assumptions, including but not limited to BPA Network Resource generation assumptions, capacity reserve obligations, power operations and hydraulic constraints, forecasted MOA Network Load growth, transmission system topology, existing transmission commitments and non-power constraints on hydro system operations such as fish and wildlife obligations (including biological opinions). BPA intends to publish the long-term Existing Transmission Commitments assumptions, including those applied to BPA Network Resources, when they become available.

(b) Network Operating Agreement

TS and PS recognize that Network Operating Agreements (NOA) are a necessary component of NT Service to Network Service Customers. TS shall consult with PS regarding the terms of the NOAs with Network Customers that affect operation of the BPA Network Resources. TS and PS shall coordinate to implement such NOAs executed by TS and Network Service Customers.

(c) Congestion Management

- (1) TS and PS shall collaborate on the development of procedures or protocols for congestion management, including redispatch and curtailment, for NT service.

- (2) TS shall coordinate with PS on the magnitude and expected duration of potential and actual requests for Tariff Attachment M redispatch. PS shall coordinate the likely availability of redispatch capability and, at the time of a redispatch request, inform TS of any limitation in meeting that request.
- (3) If there is the potential for a Network Redispatch request, TS and PS shall jointly determine the best way to use the limited amount of redispatch flexibility for either Discretionary or NT Redispatch to provide priority to firm NT schedules.
- (4) Redispatch of the BPA Network Resources is addressed in Attachment M of the Tariff and related procedures or protocols as they may be revised or replaced. PS and TS agree to work collaboratively to update Attachment M and related procedures or protocols, to address redispatch of the BPA Network Resources. TS and PS shall collaborate to further define processes for the redispatch of BPA Network Resources and non-Federal resources that are not unduly discriminatory among such resources. PS and TS shall collaborate to ensure BPA manages available redispatch to support NT service in compliance with Tariff priorities and BPA statutory obligations.
- (d) **Planning for NT Service**
TS and PS recognize that planning of transmission system improvements is a necessary component of NT Service to all Network Service Customers. PS, on behalf of entities listed in Exhibit B, shall assist in planning efforts as requested by TS.
- (e) **Business Practices and Processes**
TS may develop or revise business practices and processes related to NT service and the delivery from BPA Network Resources to serve MOA Network Load, including, but not limited to, congestion management or curtailment tools and scheduling procedures. TS and PS shall collaborate to develop such business practices and processes, and other protocols necessary to, among other things, ensure BPA compliance with all applicable reliability standards and procedures. In the event that agreement can not be reached on such business practices and processes, TS and PS shall resolve such differences consistent with the provisions of Section 11.

7. INFORMATION UPDATES

- (a) PS shall collaborate with TS to provide ongoing updated information concerning the generation forecasts for the BPA Network Resources, consistent with the requirements of the Tariff, including Section 31.6 (Annual Load and Resource Information Updates), and related BPA business practices, as they may be revised or replaced.

- (b) PS shall provide TS with timely notice of material changes in any information related to BPA Network Resources, including changes in generation forecasts or operations as may be required by updated biological opinions, non-power constraints and/or statutory requirements.
- (c) PS and TS shall work collaboratively to provide additional information related to the subject matter of this MOA, or necessary for its implementation, when requested by either party.

8. DESIGNATION AND UNDESIGNATION OF BPA NETWORK RESOURCES

- (a) The following requirements shall apply to PS' designation and temporary undesignation of BPA Network Resources under the Tariff.
 - (1) PS has designated the BPA Network Resources listed in Exhibit A. TS shall set aside firm transmission capacity that is reserved to serve MOA Network Load from the BPA Network Resources for those NT Customers designating their Regional Dialogue power sales agreement as a Network Resource in their respective Network Integration Transmission Service Agreements. Such reserved capacity does not include capacity that is otherwise used to schedule secondary service under Section 28.4 of the Tariff and Section 10 of this MOA.
 - (2) PS makes system sales of energy from the FCRPS and other BPA Network Resources listed in Exhibit A. PS uses the undesignated portions of the resources listed in Exhibit A for system sales to customers using Point-to-Point transmission services and to meet other long-term arrangements for both on and off-system deliveries. For purposes of operating Network Resources consistent with Section 30.4 (Operation of Network Resources) of the Tariff, thirty-five percent (35%) of the aggregate nameplate capacity of the system is allocated for sales of one year or longer delivered on Point-to-Point transmission pursuant to Part II of the Tariff and to meet grandfathered and statutory obligations. Thirty-five percent (35%) of the aggregate nameplate capacity of the resources listed in Exhibit A shall be treated as a temporary termination of Network Resource status under Section 30.3 (Termination of Network Resources) of the Tariff, and the appropriateness of the allocation shall be reviewed every two years as part of the MOA review described in Section 2 of this MOA.
- (b) PS may request to designate new BPA Network Resources consistent with Section 30.2 (Designation of New Network Resources) of the Tariff. TS shall process requests to designate new BPA Network Resources consistent with the Tariff, the ATC Methodology and related BPA business practices, including performing an ATC impact evaluation.

- (c) New BPA Network Resources shall be added to Section 1 of Exhibit A. For the purposes of this MOA, new BPA Network Resources shall be designated consistent with Section 30.2 of the Tariff. PS shall comply with the applicable Tariff provisions and related business practices for interconnection, if applicable, and transmission of new BPA Network Resources. The determination of whether such new BPA Network Resources shall be scheduled consistent with applicable business practices shall be documented in Exhibit A.
- (d) PS may:
 - (1) Temporarily undesignate all or part of a BPA Network Resource pursuant to this Section 8, Section 30.3 of the Tariff and related BPA business practices.
 - (2) Indefinitely undesignate all or part of BPA Network Resources pursuant to Section 30.3 of the Tariff and related BPA business practices. Upon such indefinite undesignation, the Parties shall remove all or part of the BPA Network Resource from Section 1 of Exhibit A.

9. OPERATION OF BPA NETWORK RESOURCES

- (a) PS shall operate BPA Network Resources in accordance with Section 30.4 of the Tariff.
- (b) PS shall comply with other Tariff provisions, and related BPA business practices and procedures applicable to the BPA Network Resources.

10. SECONDARY SERVICE TO MOA NETWORK LOAD

- (a) The TS Network Service Customers which have designated their Regional Dialogue power sales contract in their respective Network Integration Transmission Service Agreements and are also listed in Exhibit B, have designated PS as their agent to reserve and schedule secondary network service pursuant to Section 28.4 of the Tariff to serve MOA Network Load.
- (b) PS shall schedule secondary network service to deliver energy from resources that have not been designated as BPA Network Resources to the MOA Network Load of Network Service Customers listed in Exhibit B in accordance with Section 28.4 of the Tariff and related BPA business practices.
- (c) When scheduling such secondary network service, PS shall reference agreement number 11TX-15395.

- (d) PS may reserve and schedule secondary network service consistent with applicable business practices, up to the amount of total MOA Network Load for the applicable time period for NT Customers identified in Exhibit B.

11. COLLABORATION AND DISPUTE RESOLUTION

- (a) TS and PS shall work in good faith and collaborate on issues and processes that may impact or arise out of this MOA, including notifying the other party of issues and involving the other party in the development of policy, business processes, and alternative resolutions using the Agency Decision Framework.
- (b) The TS and PS Senior Vice Presidents shall identify and discuss transmission and power issues and processes related to this MOA at least once every six months during the regularly scheduled inter-business line Vice Presidents' meeting. The Senior Vice Presidents shall work in good faith to assign staff from their respective organizations and establish timeframes to resolve such issues.
- (c) Notwithstanding the provisions of Section 11(b), the TS Senior Vice President shall be the final decision-maker for policy, issues, and business processes for TS; and the PS Senior Vice President shall be the final decision-maker for policy, issues, and business processes for PS.
- (d) Notwithstanding Section 11(c), either TS or PS may provide notice to the other business line of a need to review the provisions of this MOA or any transmission or power issues and processes related to this MOA to resolve any impediments that prevent BPA from meeting its contractual, statutory or regulatory obligations in operating the FCRPS or the FCRTS. In the event that such matter(s) can not be resolved, TS and PS shall engage in the dispute resolution procedure specified in Section 11(e).

12. **SIGNATURES**

The Parties have caused this Agreement to be executed as of the date both Parties have signed this Agreement.

UNITED STATES OF AMERICA
Department of Energy
Bonneville Power Administration
Power Services

By: 

Name: Gregory K. Delwiche
(Print/Type)

Title: Senior Vice President

Date: 9/28/2011

UNITED STATES OF AMERICA
Department of Energy
Bonneville Power Administration
Transmission Services

By: 

Name: Brian L. Silverstein
(Print/Type)

Title: Senior Vice President

Date: 9/28/11

EXHIBIT A, REVISION NO. 9
DESIGNATED BPA NETWORK RESOURCES AND POINTS OF RECEIPT

This Exhibit A, Revision No. 9 (Revision) replaces Exhibit A, Revision No. 8 in its entirety and reflects: 1) a Partial term /full MW counteroffer of service for the addition of a new Designated Network Resource associated with Assign Ref 87319129 under “Other (Contracted) Designated Network Resources” in Section 1 commencing on October 1, 2018 and terminating on June 1, 2021, 2) removes Power Purchase Agreement No. 99PB-10447 which expired under “Other (Contracted) Designated Network Resources” in Section 1, and 3) the addition of the Box Canyon 115 kV Point of Receipt in Section 2.

1. NETWORK RESOURCES

Resource Name	Balancing Authority Area	Notes	Duration
Albeni Falls	BPAT	NA	Life of Facility
Anderson Ranch	IDAHO	NA	Life of Facility
Banks Lake Pumping Generators (PG7 – PG12)	BPAT	NA	Life of Facility
Big Cliff	BPAT	NA	Life of Facility
Black Canyon	IDAHO	NA	Life of Facility
Boise Diversion	IDAHO	NA	Life of Facility
Bonneville	BPAT	NA	Life of Facility
Chandler	BPAT	NA	Life of Facility
Chief Joseph	BPAT	NA	Life of Facility
Columbia Generating Station	BPAT	NA	Life of Facility
Cougar	BPAT	NA	Life of Facility
Cowlitz Falls (Mossyrock-POR)	BPAT	NA	Life of Facility
Detroit	BPAT	NA	Life of Facility
Dexter	BPAT	NA	Life of Facility
Dworshak	BPAT	NA	Life of Facility
Foster	BPAT	NA	Life of Facility
Grand Coulee	BPAT	NA	Life of Facility
Green Peter	BPAT	NA	Life of Facility
Green Springs ¹	BPAT	NA	Life of Facility
Hills Creek	BPAT	NA	Life of Facility
Hungry Horse	BPAT	NA	Life of Facility
Ice Harbor	BPAT	NA	Life of Facility
John Day	BPAT	NA	Life of Facility
Libby	BPAT	NA	Life of Facility
Little Goose	BPAT	NA	Life of Facility
Lookout Point	BPAT	NA	Life of Facility

¹ Lost Creek and Green Springs are telemetered from the PacifiCorp (PACW) Balancing Authority Area.

Lost Creek ¹	BPAT	NA	Life of Facility
Lower Granite	BPAT	NA	Life of Facility
Lower Monumental	BPAT	NA	Life of Facility
McNary	BPAT	NA	Life of Facility
Minidoka	IDAHO	NA	Life of Facility
Palisades	PACE	NA	Life of Facility
Roza	BPAT	NA	Life of Facility
The Dalles	BPAT	NA	Life of Facility

Other (Contracted) Designated Network Resources²

Resource name	Balancing Authority Area	Notes	Duration
Condon PPA 00PB-10692	BPAT	AREF 76202271 50 MW	July 1, 2008 – October 1, 2022
Foote Creek Foote Creek I PA 94BP-94375; April 22, 1999 – April 22, 2024; and Foote Creek IV PPA 00PB-10708; October 2, 2000 – October 2, 2020	PACW	AREF 76288756, ³ Shaped Profile: 07/01/14 to 11/01/20 33 MW 11/01/20 to 05/01/24 16 MW AREF 78998939 Shaped Profile: 01/01/16 to 11/01/20 33 MW 11/01/20 to 05/01/24 16 MW	February 1, 2012 – May 1, 2024 December 1, 2015 – May 1, 2024

² Resources must be individually scheduled.

³ Assign Ref 76288756 is for the Alvey Point of Receipt.

Other (Contracted) Designated Network Resources (continued)

Resource name	Balancing Authority Area	Notes	Duration
Klondike I PPA 02PB-11093	AVRN	AREF 76202223 24 MW	March 1, 2009 – March 1, 2023
Klondike III PPA 07PB-11860	AVRN	AREF 76512824 26 MW AREF 78998950 Shaped Profile: 01/01/16 to 11/01/27 24 MW	March 1, 2012 – November 1, 2027 December 1, 2015 – November 1, 2027
Klondike PPA 08PB-11984	AVRN	AREF 81657953 91 MW	January 1, 2016 – February 1, 2019
Rocky Brook PPA 09PB-13067	BPAT	AREF 76202308 2 MW	May 1, 2011 – October 1, 2028
Stateline PPA 01PB-10761	BPAT	AREF 76202243 92 MW	March 1, 2009 – October 1, 2027
Albeni Falls Encroachment Agreement No. 10ZZ-80053	AVRN	AREF 87319129 10 MW	October 1, 2018 – June 1, 2021

2. POINTS OF RECEIPT OF NETWORK RESOURCES

(a) Albeni Falls 115 kV

Location: the point in the Transmission Provider's Albeni Falls Substation, where the 115 kV line integrating the output of the Government's Albeni Falls Powerhouse is connected;

Voltage: 115 kV.

(b) Alvey 500 kV

Location: the points in the Transmission Provider's J. P. Alvey Substation, where the 500 kV facilities of the Transmission Provider and PacifiCorp are connected;

Voltage: 500 kV.

(c) **Anderson Ranch 138 kV**

Location: the point in the Transmission Provider's Mountain Home Substation, where the 138 kV facilities integrating the output of the Government's Anderson Ranch Powerhouse are connected;

Voltage: 138 kV.

(d) **Banks Lake Pumping Generators 230 kV**

Location: the point in the Government's Grand Coulee 230 kV Switchyard, where the line integrating the output of the Government's Pumping Generators (PG7-PG12) connects to the 230 kV bus;

Voltage: 230 kV.

(e) **Big Cliff 230 kV**

Location: the point in the Transmission Provider's Santiam Substation, where the 230 kV line integrating the output of the Government's Big Cliff Powerhouse connects to the 230 kV bus;

Voltage: 230 kV.

(f) **Black Canyon Dam 69 kV**

Location: the point near the Idaho Power Company's Emmett Substation, where the 69 kV facilities of the Transmission Provider and the Idaho Power Company are connected;

Voltage: 69 kV.

(g) **Boise Diversion Dam 34.5 kV**

Location: the point near the Government's Boise Diversion Dam Power Plant, where the 34.5 kV facilities of the Transmission Provider and the Idaho Power Company are connected;

Voltage: 34.5 kV.

(h) **Bonneville PH Contiguous**

Location: the points in the Transmission Provider's North Bonneville Substation and the Government's Bonneville Powerhouse No. 1 Substation, where the 115 kV and 230 kV lines integrating the output of the Government's Bonneville Powerhouse Nos. 1 and 2 are connected;

Voltage: 115 kV and 230 kV.

(i) **Box Canyon 115 kV**

Location: the point where the Public Utility District No. 1 of Pend Oreille County's 115 kV tap line connects with the Transmission Provider's Colville-Boundary No. 1, 115 kV line between structures 30/2 and 30/3;

Voltage: 115 kV.

(j) **Chandler 115 kV**

Location: the point in the Transmission Provider's Grandview-Richland No. 1 transmission line, between structures 14/5S and 14/6S, where the 115 kV line integrating the output of the Government's Chandler Powerhouse connects to the 115 kV transmission line;

Voltage: 115 kV.

(k) **Chief Joseph Contiguous**

Location: the points in the Transmission Provider's Chief Joseph Substation, where the 230 kV and 500 kV lines integrating the output of the Government's Chief Joseph Powerhouse connect to the 230 kV bus and 500 kV terminals;

Voltage: 230 kV and 500 kV.

(l) **Columbia Generating Station 500 kV**

Location: the point in the Transmission Provider's Ashe Substation, where the 500 kV line integrating the output of Energy Northwest's Columbia Generating Station connects to the 500 kV terminal;

Voltage: 500 kV.

(m) **Columbia 230 kV-CHPD**

Location: the point in the Transmission Provider's Columbia Substation, where the 230 kV facilities of the Transmission Provider and the Public Utility District No. 1 of Chelan County are connected;

Voltage: 230 kV.

(n) **Condon Wind Tap 69 kV**

Location: the point in the Transmission Provider's 69 kV DeMoss-Fossil transmission line between structures 34/4 and 34/5 where the 69 kV Tap Line of the Transmission Provider and SeaWest Windpower, Inc. are connected;

Voltage: 69 kV.

(o) **Cougar 115 kV**

Location: the point in the Transmission Provider's Cougar - Thurston No. 1 line, near structure 2/3, where the 115 kV line integrating the output of the Government's Cougar Powerhouse is connected;

Voltage: 115 kV.

(p) **Detroit 230 kV**

Location: the point in the Transmission Provider's Santiam Substation, where the 230 kV line integrating the output of the Government's Detroit Powerhouse connects to the 230 kV bus;

Voltage: 230 kV.

(q) **Dexter 115 kV**

Location: the point in the Transmission Provider's Dexter tap line, between structures 3/4S and 3/5S on the Lookout Point-Alvey No. 1 transmission line, where the 115 kV line integrating the output of the Government's Dexter Powerhouse is connected;

Voltage: 115 kV.

(r) **Duckabush 115 kV**

Location: the point in the Public Utility District No. 1 of Mason County's Duckabush Substation, where the 115 kV facilities of the Transmission Provider and the Public Utility District No. 1 of Mason County are connected;

Voltage: 115 kV.

(s) **Dworshak Contiguous**

Location: the point in the Transmission Provider's Dworshak Substation and on the Orofino #1 115 kV transmission tap line where the 500 kV and 115 kV facilities, respectively, integrating the output of the Government's Dworshak Powerhouse are connected;

Voltage: 500 kV and 115 kV.

(t) **Foster 115 kV**

Location: the point in the Transmission Provider's 115 kV Albany-Green Peter tap line, near structure 7/1, where the 115 kV line integrating the output of the Government's Foster Powerhouse is connected;

Voltage: 115 kV.

(u) **Grand Coulee Contiguous**

Location: the points in the Transmission Provider's Grand Coulee 230 kV and 500 kV Switchyards, where the lines integrating the output of the Government's Grand Coulee Powerhouses connect to the 230 kV and 500 kV bus;

Voltage: 230 kV and 500 kV.

(v) **Green Peter 115 kV**

Location: the point in the Transmission Provider's Green Peter Substation, where the 115 kV line integrating the output of the Government's Green Peter Powerhouse connects to the 115 kV terminal;

Voltage: 115 kV.

(w) **Green Springs 69 kV**

Location: the point in PacifiCorp's Green Springs Substation, where the 69 kV line integrating the output of the Government's Green Springs Powerhouse connects to the 69 kV terminal;

Voltage: 69 kV.

(x) **Hills Creek 115 kV**

Location: the point in the Transmission Provider's Hills Creek Substation, where the 115 kV line integrating the output of the Government's Hills Creek Powerhouse is connected;

Voltage: 115 kV.

(y) **Hungry Horse 230 kV**

Location: the point in the Government's Hungry Horse Switchyard, where the 230 kV line from the Transmission Provider's Conkelley Substation connects to the 230 kV bus;

Voltage: 230 kV.

(z) **Ice Harbor 115 kV**

Location: the points in the Transmission Provider's Levey, Sacajawea, and Franklin Substations where the 115 kV lines integrating the output of the Government's Ice Harbor Powerhouse connect to the 115 kV terminal or bus;

Voltage: 115 kV.

(aa) **John Day 500 kV**

Location: the points in the Transmission Provider's John Day Substation, where the 500 kV lines integrating the output of the Government's John Day Powerhouse connect to the 500 kV terminals;

Voltage: 500 kV.

(bb) **John Day Intertie 500 kV**

Location: the points in the Transmission Provider's John Day Substation, where the line terminals of the Pacific AC Intertie are connected to the 500 kV bus;

Voltage: 500 kV.

(cc) **Joso Tap 115 kV**

Location: the point between Structures 19/3 and 19/4 on the Transmission Provider's Franklin – Walla Walla 115 kV Transmission line, where the 115 kV facilities of the Stateline Wind Project are connected;

Voltage: 115 kV.

(dd) **Klondike SH 230 kV**

Location: the point at Avangrid Renewables, LLC's Klondike Schoolhouse Substation, where the 230 kV facilities of the Transmission Provider and Avangrid Renewables, LLC are connected;

Voltage: 230 kV.

(ee) **Libby 230 kV**

Location: the points near the Transmission Provider's Libby Substation, where the 230 kV lines integrating the output of the Government's Libby Powerhouse connect to the 230 kV facilities;

Voltage: 230 kV.

(ff) **Little Goose 500 kV**

Location: the point in the Transmission Provider's Little Goose Substation, where the 500 kV line integrating the output of the Government's Little Goose Powerhouse connects to the 500 kV terminal;

Voltage: 500 kV.

(gg) **Lookout Point 115 kV**

Location: the point in the Transmission Provider's Lookout Point Substation, where the 115 kV line integrating the output of the Government's Lookout Point Powerhouse connects to the 115 kV bus;

Voltage: 115 kV.

(hh) **Lost Creek 115 kV**

Location: the point in the Government's Lost Creek Project Substation, where the 115 kV facilities of the Government and PacifiCorp are connected;

Voltage: 115 kV.

(ii) **Lower Granite 500 kV**

Location: the point in the Transmission Provider's Lower Granite Substation, where the 500 kV line integrating the output of the Government's Lower Granite Powerhouse connects to the 500 kV ring bus;

Voltage: 500 kV.

(jj) **Lower Monumental 500 kV**

Location: the point in the Transmission Provider's Lower Monumental Substation, where the 500 kV line integrating the output of the Government's Lower Monumental Powerhouse connects to the 500 kV ring bus;

Voltage: 500 kV.

(kk) **McNary Contiguous**

Location: the points in the Transmission Provider's McNary Substation where the 115 kV and 230 kV lines integrating the output of the Government's McNary Powerhouse connect to the 115 kV and 230 kV bus;

Voltage: 115 kV and 230 kV.

(ll) **Minidoka Power House 138 kV-IPCO**

Location: the points in the Government's Minidoka Power House, where the 138 kV facilities of the Transmission Provider and Idaho Power Company are connected;

Voltage: 138 kV.

(mm) **Mossyrock 230 kV**

Location: the point in the Transmission Provider's and Tacoma Power's Chehalis-Mossyrock 230 kV transmission line, approximately 22 miles from Chehalis Substation, where the facilities of the Transmission Provider and Tacoma Power are connected;

Voltage: 230 kV.

(nn) **Palisades 115 kV**

Location: the points in the Transmission Provider's Palisades-Swan Valley and Palisades-Goshen transmission lines, where the 115 kV lines integrating the output of the Government's Palisades Powerhouse connect to the 115 kV transmission lines;

Voltage: 115 kV.

(oo) **Roza 115 kV**

Location: the point in the Transmission Provider's Moxee-Roza No. 1 transmission line, where the 115 kV facilities integrating the output of the Government's Roza Powerhouse connect to the 115 kV transmission line;

Voltage: 115 kV.

(pp) **The Dalles Contiguous**

Location: the points in the Transmission Provider's Big Eddy Substation, where the 115 kV and 230 kV lines integrating the output of the Government's The Dalles Powerhouse connect to the 115 kV and 230 kV bus;

Voltage: 115 kV and 230 kV.

3. **OTHER PROVISIONS SPECIFIC TO THIS SERVICE AGREEMENT**

Not applicable.

4. **SIGNATURES**

This Revision 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 Revision as of the last date indicated below.

BPA POWER SERVICES

UNITED STATES OF AMERICA

Department of Energy

Bonneville Power Administration

By: **DIRK VANDER LAAN**
Digitally signed by DIRK VANDER LAAN
Date: 2018.09.26 07:25:29 -07'00'

By: 
Digitally signed by ERIC CARTER
Date: 2018.09.19 14:58:58 -07'00'

Title: Manager - Long Term Purchases and

Title: Senior Transmission Account Executive

If opting out of the electronic signature:

By: _____

Name: _____
(Print/Type)

Title: _____

Date: _____

EXHIBIT B, REVISION NO. 2
NETWORK INTEGRATION TRANSMISSION SERVICE AGREEMENTS SERVED
BY BPA NETWORK RESOURCES SPECIFIED IN THIS MOA

This Exhibit B, Revision No. 2 (Revision) replaces Exhibit B, Revision No. 1 in its entirety and reflects the following: 1) removes Orcas Power and Light Cooperative, effective October 1, 2017; 2) removes the footnote on page 2 associated with Jefferson County Public Utility District No. 1 of, Transmission Service Request, Assign Ref 76302746 which had a Service Commencement Date of April, 1, 2013; 3) the addition of Kalispel Indian Community of the Kalispel Reservation Network Integration Transmission (NT) Service Agreement No. 17TX-16520, effective October 1, 2017; 4) removes Lincoln Electric Cooperative, Inc. NT Service Agreement No. 96MS-96062; 5) updates the name for NT Service Agreement No. 00TX-10366 from 'United States Department of the Navy' to 'USN Bangor, USN Bremerton' to reflect the name change; and 6) updates to current contract standards for electronic signature.

1. NETWORK INTEGRATION TRANSMISSION SERVICE AGREEMENTS

<u>Customer</u>	<u>Contract Number</u>	<u>Effective Date</u>	<u>Termination Date</u>	<u>Available for Secondary NT Use</u>
Albion, City of	01TX-10654	10/01/2001	10/01/2031	Yes
Alder Mutual Light Co., Inc.	01TX-10436	10/01/2001	10/01/2031	Yes
Ashland, City of	01TX-10524	10/01/2001	10/01/2031	Yes
Asotin County PUD No. 1	00TX-10351	10/01/2001	10/01/2031	Yes
Bandon, City of	01TX-10530	10/01/2001	10/01/2031	Yes
Benton Rural Electric Association	96MS-95364	10/01/1996	10/01/2032	Yes
Big Bend Electric Cooperative, Inc.	01TX-10352	10/01/2001	10/01/2041	Yes
Blaine, City of	00TX-10357	10/01/2001	10/01/2028	Yes
Bonniers Ferry, City of	01TX-10411	10/01/2001	10/01/2031	Yes
Burley, City of	10TX-14682	06/01/2010	10/01/2031	Yes
Canby Utility Board	01TX-10648	10/01/2001	10/01/2031	Yes
Cascade Locks, City of	01TX-10435	10/01/2001	10/01/2031	Yes
Central Lincoln People's Utility District	02TX-10870	02/01/2002	10/01/2031	Yes
Centralia, City of	98TX-10178	11/01/1998	10/01/2036	Yes
Cheney, City of	01TX-10721	10/01/2001	10/01/2031	Yes
Chewelah, City of	01TX-10544	10/01/2001	10/01/2031	Yes
Clallam County, Public Utility District No. 1	01TX-10410	10/01/2001	10/01/2031	Yes
Clark Public Utilities	01TX-10381	10/01/2001	10/01/2031	No
Columbia Basin Electric Cooperative	00TX-10370	10/01/2001	10/01/2031	Yes
Columbia Power Cooperative Association	00TX-10338	10/01/2001	10/01/2031	Yes
Columbia River People's Utility District	01TX-10463	10/01/2001	10/01/2031	Yes
Columbia Rural Electric Association, Inc.	00TX-10331	10/01/2001	10/01/2031	Yes
Consolidated Irrigation District No. 19	01TX-10483	10/01/2001	10/01/2031	Yes
Coulee Dam, Town of	01TX-10546	10/01/2001	10/01/2031	Yes
Cowlitz County, Public Utility District No. 1	01TX-10691	10/01/2001	10/01/2031	Yes
Declo, City of	10TX-14683	06/01/2010	10/01/2031	Yes

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Department of Energy - Richland	01TX-10353	10/01/2001	10/01/2028	Yes
Drain, City of	01TX-10425	10/01/2001	10/01/2031	Yes
East End Mutual Electric Company	10TX-14684	06/01/2010	10/01/2031	Yes
Eatonville, Town of	01TX-10604	10/01/2001	10/01/2031	Yes
Ellensburg, City of	96MS-96082	10/01/1996	10/01/2028	Yes
Elmhurst Mutual Power & Light Company	01TX-10420	10/01/2001	10/01/2031	Yes
Emerald People's Utility District	01TX-10695	10/01/2001	10/01/2031	Yes
Energy Northwest	01TX-10380	10/01/2001	10/01/2031	Yes
Eugene Water & Electric Board	02TX-10793	12/01/2001	01/01/2028	Yes
Fairchild Air Force Base	01TX-10543	10/01/2001	10/01/2031	Yes
Farmer's Electric Company	10TX-14761	06/01/2010	10/01/2031	Yes
Ferry County People's Utility District No. 1	01TX-10448	10/01/2001	10/01/2031	Yes
Flathead Electric Cooperative, Inc.	00TX-10350	10/01/2001	10/01/2035	Yes
Forest Grove, City of	00TX-10297	10/01/2001	10/01/2021	Yes
Glacier Electric Cooperative, Inc.	96MS-96063	10/01/1996	10/01/2031	Yes
Grant County, WA, Public Utility District No. 2	01TX-10680	10/01/2001	10/01/2028	Yes
Harney Electric Cooperative Inc.	00TX-10333	10/01/2001	10/01/2031	Yes
Hermiston, City of	01TX-10521	10/01/2001	10/01/2021	Yes
d/b/a Hermiston Energy Services				
Heyburn, City of	10TX-14686	06/01/2010	10/01/2031	Yes
Hood River Electric Cooperative	01TX-10364	10/01/2001	10/01/2031	Yes
Idaho County Light & Power Cooperative Association, Inc.	10TX-14672	06/01/2010	10/01/2031	Yes
Idaho Falls Power	10TX-14692	06/01/2010	10/01/2031	No
Inland Power and Light Company	01TX-10450	10/01/2001	10/01/2031	Yes
Jefferson County, Public Utility District No.1 of	11TX-15372	04/01/2013	04/01/2043	Yes
Kalispel Indian Community of the Kalispel Reservation	17TX-16520	10/01/2017	10/01/2028	Yes
Kittitas County, Public Utility District No. 1 of	01TX-10451	10/01/2001	10/01/2028	Yes
Kootenai Electric Cooperative	96MS-95360	10/01/2011	10/01/2035	Yes
Lakeview Light & Power	01TX-10419	10/01/2001	10/01/2031	Yes
Lewis County, Public Utility District No. 1 of	01TX-10415	10/01/2001	10/01/2031	Yes
Lost River Electric Cooperative, Inc.	10TX-15110	10/25/2010	10/01/2021	Yes
Lower Valley Energy, Inc.	07TX-12496	01/01/2007	10/01/2031	Yes
Mason County, Public Utility District No. 1	01TX-10427	10/01/2001	10/01/2031	Yes
Mason County, Public Utility District No. 3	01TX-10421	10/01/2001	10/01/2031	Yes
McCleary, City of	01TX-10742	10/01/2001	10/01/2028	Yes
McMinnville, City of	02TX-10856	02/01/2002	10/01/2031	Yes
Midstate Electric Cooperative, Inc.	00TX-10308	10/01/2001	10/01/2028	Yes
Milton, City of	01TX-10452	10/01/2001	10/01/2031	Yes
Milton-Freewater, City of	00TX-10332	10/01/2001	10/01/2031	Yes
Minidoka, City of	10TX-14687	06/01/2010	10/01/2031	Yes

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Mission Valley Power	96MS-96065	10/01/1996	10/01/2031	Yes
Missoula Electric Cooperative, Inc.	96MS-96064	10/01/1996	10/01/2031	Yes
Modern Electric Water Company	01TX-10449	10/01/2001	10/01/2028	Yes
Monmouth, City of	01TX-10428	10/01/2001	10/01/2031	Yes
Nespelem Valley Electric Cooperative, Inc.	01TX-10487	10/01/2001	10/01/2031	Yes
Northern Wasco County People's Utility District	01TX-10409	10/01/2001	10/01/2021	Yes
Ohop Mutual Light Company	96MS-96068	10/01/1996	10/01/2031	Yes
Oregon Trail Electric Consumers Cooperative, Inc.	00TX-10295	05/01/2001	05/01/2031	Yes
Pacific County, Public Utility District No. 2	01TX-10422	10/01/2001	10/01/2031	Yes
Pacific Northwest Generating Cooperative	96MS-96041	10/01/1996	10/01/2021	Yes
Parkland Light and Water Company	96MS-96074	10/01/1996	10/01/2031	Yes
Peninsula Light Company	01TX-10390	10/01/2001	10/01/2031	Yes
Plummer, City of	01TX-10545	10/01/2001	10/01/2031	Yes
Port Angeles, City of	06TX-12443	10/01/2006	10/01/2036	Yes
Port of Seattle, Seattle-Tacoma International Airport	01TX-10460	07/01/2001	10/01/2021	Yes
Port Townsend Paper Corporation	01TX-10605	10/01/2001	10/01/2031	No
Ravalli County Electric Cooperative, Inc.	00TX-10294	10/01/2001	10/01/2031	Yes
Richland, City of	01TX-10644	10/01/2001	10/01/2031	Yes
Riverside Electric Company	10TX-14688	06/01/2010	10/01/2031	Yes
Rupert, City of	10TX-14689	06/01/2010	10/01/2031	Yes
Salem Electric	00TX-10309	10/01/2001	10/01/2021	Yes
Salmon River Electric Cooperative, Inc.	10TX-15111	10/21/2010	10/01/2021	Yes
Skamania County, Public Utility District No. 1	01TX-10470	10/01/2001	10/01/2031	Yes
Soda Springs, City of	10TX-14726	06/01/2010	10/01/2031	Yes
South Side Electric Inc.	10TX-14690	06/01/2010	10/01/2031	Yes
Springfield Utility Board	01TX-10697	10/01/2001	10/01/2031	Yes
Steilacoom, Town of	01TX-10391	10/01/2001	10/01/2031	Yes
Sumas, City of	00TX-10365	10/01/2001	10/01/2028	Yes
Surprise Valley Electrification Corp.	01TX-10457	10/01/2001	10/01/2031	Yes
Tanner Electric Cooperative	01TX-10591	10/01/2001	10/01/2031	Yes
Tillamook People's Utility District	01TX-10682	10/01/2001	10/01/2031	Yes
Troy Power and Light, City of	10TX-15038	10/01/2011	10/01/2028	Yes
Umpqua Indian Utility Cooperative	01TX-10606	10/01/2001	10/01/2031	Yes
United Electric Cooperative, Inc.	10TX-14691	06/01/2010	10/01/2031	Yes
United States Department of Energy – National Energy Technology Laboratory	01TX-10538	10/01/2001	10/01/2031	Yes
USN Bangor, USN Bremerton	00TX-10366	10/01/2001	10/01/2020	Yes
Vera Water and Power	01TX-10433	10/01/2001	10/01/2021	Yes
Vigilante Electric Cooperative	96MS-96046	10/01/1996	10/01/2031	Yes

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Wahkiakum County Public Utility District No. 1	01TX-10471	10/01/2001	10/01/2031	Yes
Wasco Electric Cooperative, Inc.	01TX-10440	10/01/2001	10/01/2031	Yes
Weiser, City of	06TX-12416	01/01/2007	10/01/2037	Yes
Wells Rural Electric Company	01TX-10423	10/01/2001	10/01/2021	Yes
Whatcom County, Public Utility District No. 1	98TX-10173	09/01/2008	09/01/2038	Yes
Yakama Power	05TX-12068	02/01/2006	10/01/2035	Yes

2. SIGNATURES

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

UNITED STATES OF AMERICA
Department of Energy
Bonneville Power Administration
Power Services

UNITED STATES OF AMERICA
Department of Energy
Bonneville Power Administration
Transmission Services

By: _____

By: Curt H. Carter Digitally signed by
ehc2532@bpa.gov
Date: 2017.10.03 12:31:01 -07'00'

Title: _____

Title: Senior Transmission Account Executive

If opting out of the electronic signature:

By: Debra Malin

Name: Debra Malin

(Print/Type)
Title: Acting Supervisory Public Utilities Specialist

Date: 10/3/2017