



RESOLUTION NO. U-11379

1 A RESOLUTION related to Tacoma Power, approving and authorizing updated
2 Network Integration Transmission Service Agreements with the
3 Bonneville Power Administration.

4 WHEREAS the Bonneville Power Administration ("BPA") provides power
5 to ten load serving entities embedded within the service territory of the
6 Department of Public Utilities, Light Division's (d/b/a "Tacoma Power") under
7 existing transmission service agreements, and

8 WHEREAS these load serving entities are often referred to as the Pierce
9 County Mutuals or ("PCM"), and

10 WHEREAS BPA requires Tacoma Power transmission services to
11 transmit power to these load serving entities, and

12 WHEREAS service under Network Integration ("NT") and Point-To-Point
13 ("PTP") Transmission Service Agreements are governed by the rates, terms,
14 and conditions of Tacoma Power's Open Access Transmission Tariff ("OATT"),
15 which requires all transmission service agreements to be approved by the
16 Public Utility Board, and

17 WHEREAS the Board, pursuant to Resolution U-11028, authorized a
18 long-term Network Integration Transmission Service Agreement ("NITSA") with
19 BPA for delivery of power to Ohop Mutual Light Company ("Ohop"), and

20 WHEREAS the Board, pursuant to Resolution 10652, authorized a long-
21 term NITSA with BPA for delivery of power to Alder Mutual Light Company
22 ("Alder"), and



1 WHEREAS BPA, on behalf of Ohop, is seeking to update BPA's NITSA
2 in accordance with our OATT to include the load realized from Ohop's merger
3 with Alder, and
4

5 WHEREAS the proposed NITSA will also supersede the NITSA for
6 service to Alder as Alder is no longer an independent entity and service shall be
7 provided to the Alder community from Ohop, and
8

9 WHEREAS Tacoma Power has reviewed BPA's request for updated
10 transmission service agreements and recommends the Board approve the
11 requests; Now, therefore,
12

13 BE IT RESOLVED BY THE PUBLIC UTILITY BOARD OF THE CITY OF TACOMA:

14 That the long-term Network Integration Transmission Service
15 Agreement, valid through September 30, 2028, with BPA for delivery of power
16 to Ohop Mutual Light Company is hereby approved and the appropriate City
17 officials are authorized to execute said agreements substantially in the form as
18 on file with the Clerk of the Board and as approved by the City Attorney's Office.

19 Approved as to form:

20 _____
21 /s/ _____
22 Chief Deputy City Attorney

23 _____
24 Clerk

Chair

Secretary

Adopted _____



Board Action Memorandum

TO: Jackie Flowers, Director of Utilities
COPY: Charleen Jacobs, Director and Board Offices
FROM: Chris Robison, Power Superintendent
MEETING DATE: April 26th, 2023
DATE: March 31th, 2023

STRATEGIC DIRECTIVE ALIGNMENT (select as many that apply):

Please indicate which of the Public Utility Board's Strategic Directives is supported by this action.

- | | |
|--|---|
| <input type="checkbox"/> SD1 – Equity & Inclusion | <input type="checkbox"/> SD8 – Telecom |
| <input checked="" type="checkbox"/> SD2 – Financial Sustainability | <input type="checkbox"/> SD9 – Economic Development |
| <input type="checkbox"/> SD3 – Rates | <input type="checkbox"/> SD10 – Government Relations |
| <input type="checkbox"/> SD4 – Stakeholder Engagement | <input type="checkbox"/> SD11 – Decarbonization/Electric Vehicles |
| <input type="checkbox"/> SD5 – Environmental Leadership | <input type="checkbox"/> SD12 – Employee Relations |
| <input type="checkbox"/> SD6 – Innovation | <input checked="" type="checkbox"/> SD13 – Customer Service |
| <input type="checkbox"/> SD7 – Reliability & Resiliency | <input type="checkbox"/> SD14 – Resource Planning |

SUMMARY: The Bonneville Power Administration (BPA) on behalf of Ohop Mutual Light Company ("Ohop") is seeking to update their Network Integration Transmission Service Agreement (NITSA) in accordance with our Open Access Transmission Tariff (OATT) to include the load from merger with Alder Mutual and update their forecasted load.

The OATT contains form of service agreements for network integration transmission service. These service agreements provide for network transmission service. Network Service is meant to provide service similar to that which the transmission provider uses to serve its own load. The network load for Ohop is specified in the table in the NITSA.

This agreement is also being used as the vehicle to supersede the Service Agreement and the Alder Network Operating agreements as Alder Mutual Light Co. (Alder) is no longer an independent entity and service shall be provided to the Alder community from Ohop.

Tacoma Power seeks authorization for Jackie Flowers, Director, to execute the agreements on behalf of Tacoma Power.

BACKGROUND: Tacoma Power has an Open Access Transmission Tariff ("OATT") that is used to provide transmission service to wholesale customers (i.e., parties involved in sales for resale). The OATT contains both the terms and conditions, and the rates, associated with the provision of transmission service.

Before the OATT, Tacoma Power had a transfer tariff it used to provide transmission service to parties such as the Bonneville Power Administration ("BPA") and Iberdrola Renewables (which later became Avangrid). BPA provides power services to customers generally known as the Pierce County Mutuals that are connected to the Tacoma Power transmission system. Examples of the Pierce County Mutuals are Ohop Mutual Light Company, Peninsula Light Company, Elmhurst Mutual Power and Light Company, and Lakeview Light & Power. Iberdrola Renewables contracted with WestRock (Simpson at the time) to deliver the power generated at the biomass generating facility to California.



Board Action Memorandum

In 1996, the Federal Energy Regulatory Commission (FERC) issued its Order Nos. 888 and 889 that established open access transmission service. Until then, transmission owners could deny the use of their transmission systems, which negatively impacted the wholesale power market used to sell and purchase power. Tacoma Power is not under FERC's jurisdiction, but public power entities, such as Tacoma Power, have voluntarily adopted the use of FERC's OATT.

In 2012, Tacoma Power drafted its OATT and fashioned it after FERC's *pro forma* OATT in effect at that time. The OATT was approved by the Public Utility Board and City Council. In 2021, the OATT was modified to update the rates and to make the changes needed to accommodate Tacoma Power's entry into the Energy Imbalance Market. The updated OATT was again approved by the Public Utility Board and City Council. Service to BPA and Morgan Stanley Capital Group (who is currently marketing the Tacoma Biomass generation) is now provided under the OATT.

The OATT provides for two types of transmission service: Network Integration Transmission Service ("Network Service") and Point-To-Point Transmission Service ("PTP Service"). Network Service is meant to provide service similar to that which the transmission provider uses to serve its own load. The transmission customer has a set of defined network customers and network resources, and the entire transmission system is used to deliver the power from those resources to the loads. BPA is taking Network Service as it serves the multiple Pierce County Mutuals that are connected in various locations across Tacoma Power's transmission system. PTP service, as the name implies, is used to transfer power from a single point of receipt to a single point of delivery. The transmission between the two points is commonly referred to as a transmission path. PTP Transmission is also further segregated into firm and non-firm service. Firm service can only be interrupted if there is a system reliability problem. In addition to reliability-related issues, non-firm service can be interrupted for reasons such as financial. For example, if one customer offers a higher price than another customer, or if a customer purchases for a longer term than another. Since the service is cost based and rarely, if ever, discounted, service is seldom interrupted as a result of a customer paying a higher price.



Board Action Memorandum

ARE THE EXPENDITURES AND REVENUES PLANNED AND BUDGETED? Yes

IF THE EXPENSE IS NOT BUDGETED, PLEASE EXPLAIN HOW IT IS TO BE COVERED.

N/A

IF THE ACTION REQUESTED IS APPROVAL OF A CONTRACT, INCLUDE LANGUAGE IN RESOLUTION AUTHORIZING \$200,000 INCREASE IN ADMINISTRATIVE AUTHORITY TO DIRECTOR? No

ATTACHMENTS:

- Network Integration Transmission Service Agreement with Bonneville Power Administration to provide service to Ohop Mutual Light Company.

CONTACT:

Primary Contact: John Nierenberg, T&D Assistant Section Manager, 253-312-0565 (work)

System Planning Manager Name: Khanh Thai

Presenter (if different from primary contact):

NETWORK INTEGRATION TRANSMISSION SERVICE AGREEMENT

This Network Integration Transmission Service Agreement ("Service Agreement") is dated _____ and is entered into by and between the City of Tacoma, Department of Public Utilities, Light Division, d/b/a Tacoma Power ("Tacoma Power") and the Bonneville Power Administration ("Bonneville") to provide service to the Ohop Mutual Light Company ("Ohop"). Tacoma Power and Bonneville may sometimes be referred to in this Agreement in the singular as a "Party" and in the plural as "Parties."

RECITALS

WHEREAS, Tacoma Power provides Network Integration Transmission Service over its Transmission System under Tacoma Power's Open Access Transmission Tariff (as it may be amended or replaced from time to time, the "Tariff"); and

WHEREAS, This Service Agreement supersedes the Alder Mutual Light Co. (Alder) Service Agreement and the Alder Network Operating Agreement.

WHEREAS, Bonneville requested Network Integration Transmission Service from Tacoma Power to serve the load of Ohop pursuant to the Tariff and accompanying rate schedules (as amended or replaced from time to time, "Rate Schedules"); and

WHEREAS, contemporaneously with entering into this Service Agreement, the Parties are also agreeing to the terms of the Network Operating Agreement (as it may be amended or replaced from time to time), in the form attached as Exhibit E to this Service Agreement, addressing, among other things, operational and contractual requirements related to Network Integration Transmission Service over Tacoma Power's Transmission System; and

"WHEREAS, Tacoma Power has determined that Bonneville has provided sufficient information to form the basis of a Completed Application for Network Integration Transmission Service under the Tariff." NOW THEREFORE, the Parties agree as follows:

1. Definitions

Unless otherwise defined herein, all capitalized terms used in this Service Agreement shall have their respective meanings as set forth in the Tariff. For purposes of this Service Agreement and the Tariff, Bonneville shall be deemed to be the Transmission Customer as such term is used in the Tariff, and Tacoma Power is the provider of Network Integration Transmission Service as defined in the Tariff.

- 1.1 Tariff. Tacoma Power's Open Access Transmission Tariff as it may be amended or replaced from time to time.
- 1.2 Rate Schedules. The transmission rate schedules accompanying the Tariff as they may be amended or replaced from time to time.

2. Standard Provisions

- 2.1 Terms and Conditions and Incorporation of Tariff. The terms and conditions under which Network Integration Transmission Service is offered and accepted are pursuant to

this Service Agreement and the Tariff. The Tariff, including, without limitation, the Tacoma Power Rate Schedules attached thereto, is hereby incorporated by this reference and made a part of this Service Agreement.

- 2.2 Exhibits. The following exhibits to this Service Agreement are by this reference incorporated herein and made a part hereof: Exhibit A (Statement of Specifications for Network Integration Transmission Service); Exhibit B (Facilities Charges); Exhibit C (Ancillary and Other Services); Exhibit D (Forecast of Load); Exhibit E (Network Operating Agreement); and Exhibit F (Power Factor Compensation Calculation Methodology).
- 2.3 Network Operating Agreement. Pursuant to Section 35 of the Tariff, the Parties are obligated to execute a Network Operating Agreement, included herein as Exhibit E, to address operational and contractual requirements related to Network Integration Transmission Service over Tacoma Power's Transmission System.
- 2.4 Certification of Bonneville. Bonneville certifies that it is, or will be upon commencement of service, an Eligible Customer under the Tariff and shall remain an Eligible Customer during the term of the Service Agreement and Network Operating Agreement.

3. Term and Utility Board Approval

- 3.1 Effective Date and Submittal to Utility Board. This Service Agreement shall be effective as of hour ending 1:00 on October 1, 2018 (the "Effective Date"). Tacoma Power has previously been granted authority to execute this Service Agreement pursuant to Utility Board Resolution U-11028 adopted September 26, 2018.
- 3.2 Term of Agreement. This Service Agreement shall remain in effect through hour ending 24:00 on September 30, 2028.
- 3.3 Rollover Rights. Each Party acknowledges and agrees, except as specifically detailed in Section 3.2 above, that it enters into this Service Agreement subject to a right of first refusal and the five-year requirement of Section 2 of the Tariff on the first rollover date for this Service Agreement.

4. Network Integration Transmission Service

- 4.1 Network Integration Transmission Service Requirements Related to Network Resources.
 - 4.1.1 Provision of Network Integration Transmission Service. Commencing on the Effective Date, Tacoma Power shall provide to Bonneville, and Bonneville shall receive from Tacoma Power and pay for, Network Integration Transmission Service pursuant to the Tariff and applicable Rate Schedules. Tacoma Power's obligation to provide Network Integration Transmission Service shall be subject to Tacoma Power's rights to curtail or interrupt schedules pursuant to the Tariff.

Section 34 of the Tariff outlines the applicable rates and charges methodology for Network Integration Transmission Service.

- 4.1.2 Network Resources. Exhibit A to this Service Agreement lists Bonneville's designated Network Resources and Network Loads. The Network Resources listed in Exhibit A are limited to (a) power purchased from Bonneville and, (b) non-federal resources, provided that any such non-federal resources (1) constitute "Dedicated Resources" serving "Above-RHWM Load," as those terms are defined in the Regional Dialogue Power Sales Agreement between Bonneville and Ohop (the "Ohop Regional Dialogue Agreement"), (2) are subject to and consistent with the provisions of Exhibits F and G to the Ohop Regional Dialogue Agreement and the Transfer Service Support for Non-Federal Resources Agreement between Bonneville and Ohop, and (3) are subject to Bonneville contractual rights to control output as necessary to comply with the terms of the Ohop Regional Dialogue Agreement and any curtailment instruction issued by Tacoma Power pursuant to the Tariff.
- 4.2 Facilities Charges. All applicable charges pursuant to the Direct Assignment Facilities Provisions for existing facilities and facilities built as a result of this Service Agreement are hereby incorporated as Exhibit B.
- 4.3 Charges for Network Integration Transmission Service. Bonneville shall pay Tacoma Power the applicable charges for services provided hereunder pursuant to the Tacoma Power Rate Schedules included as part of the Tariff. Tacoma Power may change the rates that apply to Network Integration Transmission Service under this Service Agreement pursuant to Section 9 of the Tariff.
- 4.4 Power Factor Requirements. Ohop's load should not adversely affect the voltage stability of the Tacoma Power Transmission System. Accordingly, Ohop load should operate at power factor of not less than 0.97. If, at any time during the term of this Service Agreement, there is a calendar month during which, in any hour, Ohop's load operates at a power factor below 0.97 (as measured at the applicable point of delivery and/or metering point), then Bonneville shall pay to Tacoma Power, for all hours during which the Ohop load operated at a power factor of less than 0.97, the compensation specified and calculated in accordance with Exhibit F to this Service Agreement. Tacoma Power and Bonneville shall use good faith efforts to jointly plan and operate their facilities at the points specified in Exhibit A in a manner that does not place an undue burden on the other party to supply or absorb reactive power at such points.

5. Other Services

- 5.1 Ancillary Services. Commencing on the Effective Date, Tacoma Power shall provide, and Bonneville shall take and pay for, the following Ancillary Services:
- (a) Scheduling, System Control, and Dispatch Service
 - (b) Reactive Supply and Voltage Control from Generation Sources Service

The amounts of such Ancillary Services, any exceptions, specific terms and/or conditions associated with such Ancillary Services are listed in Exhibit C to this Service Agreement. Rates applicable to such Ancillary Services will be as stated in the Tacoma Power Rate Schedules included as part of the Tariff.

- 5.2 Transmission Losses. In addition to the Ancillary Services as set forth in Section 5.1 of this Service Agreement, Tacoma Power shall provide, and Bonneville shall take and pay for, Transmission Losses associated with the Network Integration Transmission Service provided under this Service Agreement, in accordance with the Transmission Loss Factor specified in the Tariff.

6. Construction of Facilities

As of the execution date of this Service Agreement, no construction or additional metering and communications are needed. Tacoma Power shall have the right to collect from Bonneville, acting through Bonneville's power service organization, any charges imposed on Tacoma Power by Bonneville, acting through its transmission service organization, for the use of or access to Bonneville's communications equipment for meter reading related to Network Integration Transmission Service provided under this Service Agreement.

7. Billing and Payment

Billing and payment for all services provided under this Service Agreement shall be pursuant to Section 7 of the Tariff. Bills sent to Bonneville shall be sent to:

Scheduling Coordination – PTK-5
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208-3621

All payments to Tacoma Power shall be electronic funds transferred (EFT) to:

Bank of America
ABA Routing # 026009593
Account Number: 67650200
Ref: (invoice #/payment purpose)

8. Miscellaneous Provisions

- 8.1 Governing Law and Venue for Disputes. This Service Agreement shall be interpreted, construed, and enforced in accordance with laws of the State of Washington, without reference to choice of law doctrine, except that to the extent the Parties' rights and obligations are required to be governed by United States Federal law, then such rights and obligations shall be governed by United States Federal law. The forum for litigation arising from this contract shall exclusively be a Federal court of the United States, or other forum available pursuant to Federal law, unless the parties agree to pursue alternative dispute resolution.
- 8.2 Provisions Governing Modifications to Service Agreement and Exhibits. This Service

Agreement and its Exhibits may be modified only as provided in this Section 8.2.

8.2.1 Written Agreement of the Parties. Any provision of this Service Agreement or any of its Exhibits may be modified at any time by written agreement of the Parties, subject to any requirement Tacoma Power may have to obtain approval of the Utility Board.

8.2.2 Modifications Necessary to Comply with Law or Regulation. Tacoma Power may unilaterally modify this Service Agreement (including any of its Exhibits) to the extent Tacoma Power determines in good faith that modification is necessary to comply with law or regulation applicable to Tacoma Power or its Transmission System; provided, however, that Tacoma Power may exercise its rights under this Section 8.2.2 only if Tacoma Power (a) first obtains Utility Board approval of any modifications to this Service Agreement (or any Exhibit) it determines are necessary to comply with applicable law or regulation, (b) provides at least 45 days' prior written notice to Bonneville of any modifications proposed pursuant to this Section 8.2.2 and an opportunity for Bonneville to confer with Tacoma Power before implementing the modifications (unless the circumstances are so exigent as to preclude 45 days' prior notice and consultation), and (c) provides prior written notice to Bonneville of the Utility Board meeting at which Tacoma Power will request approval of modifications pursuant to this Section 8.2.2. If Bonneville is not afforded prior written notice and consultation prior to the modification due to exigent circumstances, Bonneville will be given an opportunity to confer with Tacoma regarding the modification after its adoption, and be afforded prior written notice of the Utility Board meeting at which Tacoma Power will request approval of modifications.

8.2.3 Modifications to Conform to Tariff Amendments and Rate Determinations. Tacoma Power may unilaterally modify this Service Agreement (including any of its Exhibits) as necessary to maintain consistency between the provisions of this Service Agreement (including its Exhibits) and (a) the Tariff, as it may be amended from time to time in accordance with Section 9 of the Tariff, and (b) Rate Schedules and rate determinations properly established or adopted in accordance with Tacoma Power procedures and legal requirements; provided that Tacoma Power may exercise its rights under this Section 8.2.3 only if Tacoma Power has provided notice to Bonneville as required by Section 8.2.2.

8.3 Notices Relating to Provisions of the Service Agreement. Any notice, request, demand, or statement given to or made upon one Party by the other Party under any of the provisions of this Service Agreement, except those specified in Section 8.4 below, shall be in writing and shall be considered delivered when either personally delivered to the following or deposited in the mail postage prepaid and properly addressed to the following:

If to Bonneville:

Bonneville Power Administration
Attn: Transfer Services Manager
Address: 905 NE 11th Ave.
City, State: Portland, OR 97232

If to Tacoma Power:

Tacoma Power
Attention: T&D Manager
3628 South 35th Street
Tacoma, WA 98409-3192

Phone: (503) 230-5164
Fax: (503) 230-3242

Phone: (253) 502-8286
Fax: (253) 396-3085

- 8.4 Notices of an Operating Nature. Any notice, request, or demand pertaining to matters of an operating nature, exclusive of requests for additional or modified Transmission Service under the Tariff, shall be sufficient if given in writing, by telephone, by facsimile, or orally in person to the person designated in writing by the Party as its representative for such purposes, provided that should such notice, request, or demand not be in writing, confirmation thereof shall be made in writing as soon as reasonably practicable thereafter, upon request of the Party being served. The representative for receiving notices pursuant to this Section 8.4 and such representative's address shall be communicated by the Parties under separate letter within 45 days from the execution date of this Service Agreement.
- 8.5 Future Changes or Additions. Any obligation of Tacoma Power to change or increase the capability of the Tacoma Power Transmission System to provide Network Integration Transmission Service for Network Load shall be as provided in Section 31 of the Tariff. No action by Tacoma Power to otherwise change or make additions to its Transmission System shall confer on Bonneville any rights to additional transmission or other services under this Service Agreement.
- 8.6 Computation of Time. To compute any period of time prescribed or allowed by this Service Agreement, the day of the act, event, or default from which the designated period of time begins to run shall not be included. The last day of the period so computed shall be included unless it is a Saturday, Sunday, or legal holiday, in which event the period shall run until the end of the next day that is neither a Saturday, Sunday, nor legal holiday. For purposes of the administration of this Service Agreement, Pacific Time shall be used.
- 8.7 No Third Party Beneficiaries. This Service Agreement, to the extent that it does not contradict the terms of Section 6 of the Tariff, creates rights and obligations exclusively between the Parties hereto. Except as set forth in Section 6 of the Tariff, the Parties hereto do not intend to create any additional obligation or promise of performance to any other person or entity and the Parties have not conferred any right to enforce this Service Agreement or any remedy upon any third person or entity other than the Parties hereto and their respective successors and assigns.
- 8.8 Waivers. Any waiver at any time by either Party of its rights with respect to a default under this Service Agreement, or with respect to any other matter arising in connection with this Service Agreement, shall not be deemed a waiver with respect to any other or subsequent default or matter.
- 8.9 Assignment. Tacoma Power may assign this Service Agreement only upon the prior written consent of Bonneville, provided however, that Bonneville hereby consents to assignment of this Service Agreement if it is consistent with federal law, to any entity that has, pursuant to legally binding arrangements, assumed responsibility for operating the Tacoma Power Transmission System or administering transmission service on the Tacoma Power Transmission System. Bonneville and Ohop may request an assignment of this Service Agreement from Bonneville to Ohop. This assignment shall include all rights and post-assignment obligations associated with this Service Agreement. Such

assignment shall require mutual agreement among Tacoma Power, Bonneville and Ohop, provided that Tacoma Power shall not unreasonably withhold such agreement. When notice of such assignment is provided to Tacoma Power, Bonneville and Ohop shall work in good faith to make any necessary modifications to this Service Agreement and the Network Operating Agreement, implement metering modifications, ensure compliance with the Tariff, and make any other adjustments necessary to allow such assignment to proceed. If Tacoma Power withholds agreement to such assignment, Tacoma Power shall provide a detailed written explanation as to why it is withholding agreement and shall include a detailed list of items that would allow Tacoma Power to agree to such assignment. A Party requesting assignment shall provide at least six months' prior written notice to the other Party. Any assignment pursuant to this Section 8.9 by an assignor to an assignee shall only be made with the contemporaneous assignment of the Network Operating Agreement, by the same assignor to the same assignee. In addition, to the extent there are, at the time of the assignment, any arrangements in place between Bonneville and Tacoma Power (apart from those specified in the Tariff, this Service Agreement, and the Network Operating Agreement) that are material to Tacoma Power's provision of Network Integration Transmission Service or the operation of Tacoma Power's Transmission System consistent with Good Utility Practice, such assignment shall also be subject to the completion of comparable arrangements between Tacoma Power and the assignee. Subject to the foregoing restrictions on assignment, this Service Agreement shall be binding upon, inure to the benefit of, and be enforceable by the Parties and their successors and assigns.

- 8.10 Tariff Governs. In the event of any irreconcilable difference between the Tariff, this Service Agreement, or the Network Operating Agreement, the terms of the Tariff shall govern.
- 8.11 Interconnection with Other Systems. Nothing contained in this Service Agreement shall restrict or limit either Party from establishing, altering, or terminating interconnection points with any entity not a party to this Service Agreement or amending or entering into such agreements.
- 8.12 Entire Agreement. This Service Agreement, together with the Network Operating Agreement and the Tariff, constitutes the entire agreement between the Parties with respect to the subject matter hereof, and there are no other understandings or agreements between the Parties with respect hereto.

- 8.13 Effect of Paragraph Headings. Headings and captions appearing in this Service Agreement are inserted for convenience of reference only and shall not be construed to be interpretations of the text of this Service Agreement.

9. Signatures

The signatories represent that they are authorized to enter into this Service Agreement on behalf of the Party for which they sign.

BONNEVILLE POWER ADMINISTRATION

By: _____

Name: Daniel R. Yokota
(Print/Type)

Title: Manager, Transfer Services

Date: _____

TACOMA POWER

By: _____

Name: _____
(Print/Type)

Title: _____

Date: _____

Exhibit A

Statement of Specifications for Network Integration Transmission Service

1. TERM OF TRANSACTION

Start Date: Hour ending 1:00 on October 1, 2018.

Termination Date: Hour ending 24:00 on September 30, 2028.

2. NETWORK RESOURCES

(a) Power Purchased from Bonneville Power Administration by Ohop

| Resource | Capacity (MW) | Capacity Designated As Network Resource | Scheduling Agent | Balancing Authority |
|-------------------------|--------------------------|--|-----------------------------|--------------------------------|
| Contract No. 09PB-13082 | 30 | See the forecast as attached to Exhibit D | BPA | BPA |

3. NETWORK LOAD

The Application provides Ohop's initial annual load and resource information. Annual load and resource information updates shall be submitted to Tacoma Power at the address specified in 8.3 of this Service Agreement, by September 30 of each year, unless otherwise agreed to by the Parties.

4. DESCRIPTION OF POINT(S) OF RECEIPT

Canyon Substation

Location: The point of interconnection at Tacoma Power's Canyon Substation where the 230 kV facilities of Tacoma Power and Bonneville are connected.

Voltage: 230 kV

Metering: Shall be located in the 230 kV circuits over which power flows.

Cowlitz Substation

Location: The point of interconnection at Tacoma Power's Cowlitz Substation where the 230 kV facilities of Tacoma Power and Bonneville are connected.

Voltage: 230 kV

Metering: Shall be located in the 230 kV circuits over which power flows.

Northeast Substation

Location: The point of interconnection at Tacoma Power's Northeast Substation where the 230 kV facilities of Tacoma Power and Bonneville are connected.

Voltage: 230 kV

Metering: Shall be located in the 230 kV circuits over which power flows.

Southwest Substation

Location: The point of interconnection at Tacoma Power's Southwest Substation where the 230 kV facilities of Tacoma Power and Bonneville are connected.

Voltage: 230 kV

Metering: Shall be located in the 230 kV circuits over which power flows.

5. DESCRIPTIONS OF NETWORK POINT(S) OF DELIVERY

1.0 Point(s) of Delivery for Ohop:

Lynch Creek Substation

Location: The point in near Tacoma Power's LaGrande-Cowlitz 115kV Line near where the 115kV facilities of Tacoma Power and Bonneville are connected, near Tacoma Power switches 10-15 and 10-20.

Voltage: 115kV

Metering: In Bonneville's Lynch Creek Substation, in the 12.5 kV circuits over which power flows.

Mashel Prairie Substation

Location: The point in Ohop's Mashel Prairie Substation where the 115kV facilities of Tacoma Power and Ohop are connected, near Tacoma Power switches 10-525 and 10-526.

Voltage: 115kV

Metering: In Ohop's Mashel Prairie Substation, in the 12.5 kV circuits over which power flows.

Exceptions: Back-up Distribution Service is available at the point in Ohop's Alder Lake Park (Tacoma Power's normally open disconnect switch 12-1829) where 12.5 kV facilities of Tacoma Power and Ohop are adjacent.

Ohop Substation

Location: The point in Ohop's Ohop Substation where the 115kV facilities of Tacoma Power and Ohop are connected, near Tacoma Power switches 10-67 and 10-68.

Voltage: 115kV

Metering: In Ohop's Ohop Substation, in the 12.5 kV circuits over which power flows.

Metering Loss Adjustment: Bonneville Power Administration will adjust for Transmission Losses between Ohop's point of delivery and point of metering. Such adjustments shall be specified in written correspondence between Tacoma Power and Bonneville.

Exceptions: None

6. DESIGNATION OF PARTY SUBJECT TO RECIPROCAL SERVICE

Bonneville

7. NAME(S) OF ANY INTERVENING SYSTEMS PROVIDING TRANSMISSION SERVICE

8. OTHER PROVISIONS SPECIFIC TO THIS SERVICE AGREEMENT

Exhibit B

Facilities Charges

DIRECT ASSIGNMENT FACILITIES CHARGES

Not applicable at this time.

Exhibit C

Ancillary and Other Services

| | <u>Provided By</u> | <u>Contract No.</u> |
|--|--------------------|---------------------|
| 1. Ancillary Services | | |
| (a) Scheduling and Dispatch | Tacoma Power | |
| (b) Reactive Supply and Voltage Control | Tacoma Power | |
| (c) Regulation and Frequency Response | BPA | |
| (d) Energy Imbalance | BPA | |
| (e) Operating Reserve – Spinning Reserve | BPA | |
| (f) Operating Reserve – Supplemental Reserve | BPA | |
| 2. Other | | |
| (a) Transmission Losses | 1.87% | |
| (b) Losses shall be settled [financially by monthly payment OR scheduled for return 168 hours after transfer] | | |
| (c) Back-up Distribution Service [No additional costs will be applied to either entity when backup service is supplied at Ohop's Alder Lake Park connection] | | |

Exhibit D

Forecast of Load

| 2018 Monthly Load Forecast | | | | | | | | | | | | |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|-------------|-------------|
| Point of Delivery | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Lynch Creek Substation | | | | | | | | | | 0.2 | 0.2 | 0.3 |
| Mashel Prairie Substation | | | | | | | | | | 6.5 | 8.3 | 10.0 |
| Ohop Substation | | | | | | | | | | 12.5 | 14.5 | 16.6 |
| Total Load Forecast | | | | | | | | | | 19.2 | 23.0 | 26.9 |

| 2019 Monthly Load Forecast | | | | | | | | | | | | |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Point of Delivery | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Lynch Creek Substation | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 |
| Mashel Prairie Substation | 8.7 | 9.6 | 7.6 | 6.1 | 5.7 | 4.8 | 6.7 | 6.8 | 5.9 | 6.5 | 8.3 | 10.0 |
| Ohop Substation | 16.4 | 15.3 | 13.6 | 10.5 | 10.2 | 7.0 | 6.9 | 6.6 | 8.0 | 12.6 | 14.6 | 16.6 |
| Total Load Forecast | 25.4 | 25.1 | 21.4 | 16.8 | 16.0 | 11.9 | 13.8 | 13.5 | 14.0 | 19.3 | 23.1 | 26.9 |

| 2020 Monthly Load Forecast | | | | | | | | | | | | |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Point of Delivery | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Lynch Creek Substation | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 |
| Mashel Prairie Substation | 8.7 | 9.6 | 7.6 | 6.1 | 5.7 | 4.8 | 6.7 | 6.8 | 5.9 | 6.5 | 8.3 | 10.0 |
| Ohop Substation | 16.4 | 15.3 | 13.7 | 10.5 | 10.2 | 7.0 | 6.9 | 6.7 | 8.0 | 12.6 | 14.6 | 16.7 |
| Total Load Forecast | 25.4 | 25.1 | 21.5 | 16.8 | 16.0 | 11.9 | 13.7 | 13.6 | 14.0 | 19.3 | 23.1 | 27.0 |

| 2021 Monthly Load Forecast | | | | | | | | | | | | |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Point of Delivery | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Lynch Creek Substation | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 |
| Mashel Prairie Substation | 8.7 | 9.6 | 7.6 | 6.1 | 5.7 | 4.8 | 6.7 | 6.8 | 5.9 | 6.5 | 8.3 | 10.0 |
| Ohop Substation | 16.5 | 15.3 | 13.7 | 11.6 | 9.2 | 7.1 | 7.0 | 6.7 | 8.0 | 12.6 | 14.7 | 16.7 |
| Total Load Forecast | 25.5 | 25.1 | 21.5 | 17.9 | 15.0 | 12.0 | 13.9 | 13.6 | 14.0 | 19.3 | 23.2 | 27.0 |

| 2022 Monthly Load Forecast | | | | | | | | | | | | |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Point of Delivery | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Lynch Creek Substation | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| | | | | | | | | | | | | |
|----------------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| Mashel Prairie Substation | 9 | 9 | 8 | 7 | 5 | 5 | 5 | 5 | 5 | 8 | 9 | 11 |
| Ohop Substation | 15 | 14 | 12 | 11 | 8 | 7 | 7 | 7 | 7 | 11 | 12 | 14 |
| Total Load Forecast | 26 | 24 | 21 | 19 | 14 | 13 | 13 | 13 | 13 | 20 | 22 | 26 |

*As of October 1st 2022 the load forecast for Marshel Prairie includes Alder Mutual's load at Elbe as a result of the Ohop/Alder Mutual merger.

| 2023 Monthly Load Forecast | | | | | | | | | | | | |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Point of Delivery | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Lynch Creek Substation | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Mashel Prairie Substation | 11 | 10 | 9 | 9 | 7 | 6 | 6 | 6 | 6 | 9 | 10 | 11 |
| Ohop Substation | 15 | 15 | 13 | 12 | 9 | 8 | 8 | 8 | 8 | 12 | 13 | 15 |
| Total Load Forecast | 28 | 27 | 24 | 23 | 17 | 15 | 15 | 15 | 15 | 22 | 25 | 28 |

| 2024 Monthly Load Forecast | | | | | | | | | | | | |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Point of Delivery | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Lynch Creek Substation | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Mashel Prairie Substation | 12 | 10 | 9 | 9 | 7 | 6 | 6 | 6 | 6 | 9 | 10 | 11 |
| Ohop Substation | 16 | 14 | 13 | 12 | 9 | 8 | 8 | 8 | 8 | 12 | 13 | 15 |
| Total Load Forecast | 30 | 26 | 24 | 23 | 17 | 15 | 15 | 15 | 15 | 22 | 25 | 28 |

| 2025 Monthly Load Forecast | | | | | | | | | | | | |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Point of Delivery | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Lynch Creek Substation | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Mashel Prairie Substation | 12 | 10 | 9 | 9 | 7 | 6 | 6 | 6 | 6 | 9 | 10 | 11 |
| Ohop Substation | 16 | 15 | 13 | 12 | 9 | 8 | 8 | 8 | 8 | 12 | 13 | 15 |
| Total Load Forecast | 30 | 27 | 24 | 23 | 17 | 15 | 15 | 15 | 15 | 22 | 25 | 28 |

| 2026 Monthly Load Forecast | | | | | | | | | | | | |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Point of Delivery | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Lynch Creek Substation | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Mashel Prairie Substation | 12 | 10 | 9 | 9 | 7 | 6 | 6 | 6 | 6 | 9 | 10 | 12 |
| Ohop Substation | 16 | 15 | 13 | 12 | 9 | 8 | 8 | 8 | 8 | 12 | 13 | 15 |
| Total Load Forecast | 30 | 27 | 24 | 23 | 17 | 15 | 15 | 15 | 15 | 22 | 25 | 29 |

| 2027 Monthly Load Forecast | | | | | | | | | | | | |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Point of Delivery | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Lynch Creek Substation | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Mashel Prairie Substation | 12 | 10 | 10 | 9 | 7 | 6 | 6 | 7 | 6 | 9 | 10 | 12 |
| Ohop Substation | 16 | 15 | 13 | 12 | 9 | 8 | 8 | 8 | 8 | 12 | 13 | 16 |
| Total Load Forecast | 30 | 27 | 25 | 23 | 17 | 15 | 15 | 16 | 15 | 22 | 25 | 30 |

| 2028 Monthly Load Forecast | | | | | | | | | | | | |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Point of Delivery | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Lynch Creek Substation | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | | | |
| Mashel Prairie Substation | 12 | 10 | 10 | 9 | 7 | 7 | 6 | 7 | 6 | | | |
| Ohop Substation | 16 | 15 | 13 | 12 | 9 | 8 | 8 | 8 | 8 | | | |
| Total Load Forecast | 30 | 27 | 25 | 23 | 17 | 16 | 15 | 16 | 15 | | | |

Exhibit E

Network Operating Agreement
Between
TACOMA POWER
and
BONNEVILLE POWER ADMINISTRATION

This Network Operating Agreement (“Agreement”) is dated September 25, 2014 and is entered into by and between the City of Tacoma, Department of Public Utilities, Light Division, d/b/a Tacoma Power (“Tacoma Power”) and the Bonneville Power Administration (“Bonneville”) to provide service to the Ohop Mutual Light Company (“Ohop”). Tacoma Power and Bonneville may sometimes be referred to in this Agreement in the singular as a “Party” and in the plural as “Parties.”

RECITALS

WHEREAS, Tacoma Power provides Network Integration Transmission Service over its Transmission System under Tacoma Power’s Open Access Transmission Tariff (as it may be amended or replaced from time to time, the “Tariff”); and

WHEREAS, Tacoma Power and Bonneville currently operate interconnected electric systems; and

WHEREAS, with the agreement of Ohop, Bonneville requested Network Integration Transmission Service from Tacoma Power for service to the load of Ohop pursuant to the Tariff; and

WHEREAS, concurrently with the execution of this Agreement, Tacoma Power and Bonneville have executed a Network Integration Transmission Service Agreement (as it may be amended or replaced from time to time, the “Service Agreement”), under the Tariff, pursuant to which Tacoma Power will provide Network Integration Transmission Service to Bonneville for service to the load of Ohop; and

WHEREAS, execution of the Service Agreement by the Parties will constitute acceptance of the terms of this Agreement which will be an Exhibit attached to the Service Agreement; and

WHEREAS, Tacoma Power and Bonneville desire to set forth in this Agreement the operational and contractual requirements related to Network Integration Transmission Service over Tacoma Power’s Transmission System for purposes of the Service Agreement and the Tariff.

NOW, THEREFORE, the Parties agree as follows:

1. Scope of Network Operating Agreement

- 1.1. Relationship to Agreement Limiting Liability Among Western Interconnected Systems.
This Agreement provides terms and conditions associated with technical and operational

issues necessary for the implementation of Network Integration Transmission Service under the Tariff and the Service Agreement. In performance of their respective obligations under this Agreement, the Service Agreement and the Tariff, each Party shall adhere to Good Utility Practice, subject to the Agreement Limiting Liability Among Western Interconnected Systems (“ALLAWIS”), or its replacement, so long as both Tacoma Power and Bonneville are parties to such agreement. If at any time during the term of this Agreement the ALLAWIS is terminated and is not replaced by a successor agreement to which Tacoma Power and Bonneville are both parties, Tacoma Power and Bonneville shall promptly consult in good faith and make commercially reasonable efforts to enter into mutually acceptable arrangements to address the matters previously addressed by the ALLAWIS.

- 1.2. Balancing Authority and Ancillary Services Requirements. In connection with Network Integration Transmission Service provided under the Service Agreement, Bonneville shall operate as a Balancing Authority (as defined by the NERC Reliability Standards) under applicable Reliability Requirements of NERC and WECC. The Parties acknowledge that the Network Load referred to in this Agreement is within Bonneville’s Balancing Authority Area (as defined by the NERC Reliability Standards) and the Network Resource referred to in this Agreement is within Bonneville’s Balancing Authority Area, unless otherwise specified in Exhibit A to the Service Agreement. If at any time during the term of this Agreement, Bonneville ceases to operate as a Balancing Authority Area, then Bonneville shall provide timely notice to Tacoma Power and, effective as of such cessation, (a) satisfy its Balancing Authority requirements necessary to serve Ohop’s load, including all Ancillary Services, by contracting with Tacoma Power; (b) satisfy its Balancing Authority requirements necessary to serve Ohop’s load, including all Ancillary Services, by contracting with other entities that can satisfy those requirements in a manner that is consistent with Good Utility Practice and satisfies NERC and WECC Reliability Requirements; or (c) satisfy its Balancing Authority requirements through a combination of (a) and (b) above. If at any time during the term of this agreement Tacoma Power ceases to operate as a Balancing Authority Area, Bonneville shall have no further obligation to purchase Ancillary Services from Tacoma Power and the Parties shall work cooperatively to modify this Agreement and the Service Agreement to reflect any changes in Ancillary Service obligations.

2. Definitions

Unless defined in this Section 2 or otherwise defined herein, all capitalized terms shall have their respective meanings as set forth in the Tariff.

- 2.1 NERC. The North American Electric Reliability Corporation, or its successor.
- 2.2 NWPP. The Northwest Power Pool, or its successor.
- 2.3 Reliability Councils. The Western Electricity Coordinating Council (WECC), the North American Electric Reliability Corporation (NERC), their respective successors, or such other organization(s) whose mandate, in whole or in part, is to establish criteria, systems,

standards, rules, procedures, practices or management programs for the operation and reliability of the bulk electric systems.

- 2.4 Reliability Requirements. The Reliability Councils' reliability, operation, security and other similar standards applicable to a Party, and any other similar standards to which a Party is subject by law or any authority having jurisdiction.
- 2.5 Tariff. Tacoma Power's Open Access Transmission Tariff, as it may be amended or replaced from time to time.
- 2.6 Telemetry. The sending of, or the capability of sending, real-time load monitoring data from each delivery point at the interconnection site to Tacoma Power's Operating Center using RTU (SCADA) equipment for metering load, power flow, voltage or breaker status.
- 2.7 WECC. The Western Electricity Coordinating Council, or its successor.

3. Term

This Agreement shall become effective and remain effective concurrent with the term of the Service Agreement (see section 3.2 of the Service Agreement).

4. Network Operating Committee

- 4.1 Membership. The Network Operating Committee shall be composed of a representative(s) from Tacoma Power, Bonneville, and Ohop.
- 4.2 Responsibilities. The Network Operating Committee shall meet either in person or by means of electronic communication (e.g. telephone, internet, etc.) at least once per calendar year to: (a) adopt rules and procedures consistent with this Agreement and the Tariff governing operating and technical requirements necessary for implementing Network Integration Transmission Service under the Tariff and Service Agreement; (b) review designated Network Resources and Network Loads on an annual basis in order to assess the adequacy of the Transmission System, and (3) obtain from Tacoma Power its operating policies, procedures, and guidelines for network interconnection and operation.
- 4.3 General Customer Information Requirements. Bonneville shall, when requested by Tacoma Power, provide load forecasts, forecasts for generation by or for Ohop (excluding power purchased from Bonneville), schedules and any other information (a) necessary for Tacoma Power's calculation of available transmission capability on Tacoma Power's Transmission System; (b) necessary for Tacoma Power's implementation of redispatch, curtailment, load shedding and congestion management procedures; (c) necessary to enable Tacoma Power to operate its Transmission System consistent with Good Utility Practice; (d) required to be provided by a Transmission Customer under the Tariff; or (e) as otherwise required by law.

5. Interconnection of Network Resources

As of the execution date of this Agreement, Bonneville has no Network Resources directly interconnected with Tacoma Power's Transmission System. At such time as Bonneville intends to designate as a Network Resource a generation resource that is directly interconnected with Tacoma Power's Transmission System, and prior to such interconnection, Tacoma Power and Bonneville shall, subject to mutual agreement, specify applicable principles and requirements for the interconnection of generation resources and shall amend this section and this Agreement accordingly.

6. Curtailment of Network Service

6.1 Respective Roles of the Parties.

- (a) As the Network Customer under the terms of the Tariff, Bonneville accepts the roles and responsibilities associated with the:

- (1) Balancing Authority; and
- (2) Load Serving Entity¹

as each is defined by NERC and WECC, for Ohop. Bonneville shall maintain these roles and responsibilities unless and until they are transferred to, and accepted by, Ohop.

- (b) As the Transmission Provider under the terms of the Tariff, Tacoma Power retains the role and responsibilities of the Transmission Operator, as defined by NERC and WECC.

6.2 Balancing Authority Area of Network Load. Network Load referred to in this Agreement is within Bonneville's Balancing Authority Area and the Network Resource referred to in this Agreement originates in Bonneville's Balancing Authority Area, unless otherwise specified in Exhibit A to the Service Agreement. In addition, as of the Effective Date of this Agreement, the Parties agree to treat the Network Load as a pseudo-tie in Bonneville's Balancing Authority Area.

6.3 Manner of Curtailing Network Service. Pursuant to Sections 33.4 and 33.5 of the Tariff, Tacoma Power may require the Curtailment of Bonneville's scheduled deliveries to Ohop load from designated contract Network Resources under the Service Agreement. In response to such curtailment request, Bonneville shall coordinate with Tacoma Power and Ohop to reduce Ohop load to match the new schedule by implementing the Operating Procedures referenced in section 9.2 of this Agreement. In the event of such Curtailment,

¹ Bonneville is responsible for fulfilling the role of Load Serving Entity for scheduling and load forecasting. However, Ohop has taken on the responsibility for load shedding and consistent with the operating protocols developed with Tacoma Power, communications regarding load shedding will be between Tacoma Power and Ohop. In addition, it is understood that for the interconnected facilities owned by Ohop, Tacoma Power and Ohop will address any issues.

Tacoma Power shall, to the extent feasible and consistent with Good Utility Practice and on a comparable basis with service to all other affected Network Customers and Tacoma Power's bundled retail Native Load Customers, accept scheduled deliveries up to an amount equal to the Curtailment at any other available delivery point on Tacoma Power's Transmission System.

- 6.4 Remote Load Shedding. Remote load shedding equipment is required for any substation with a load that is equal to or greater than 10 MW. If not already installed, remote load shedding equipment will be installed and operational within six (6) months of any substation load reaching the 10 MW threshold. Bonneville has coordinated the ownership and operation of the load shedding equipment with Ohop.² However, if Ohop fails to maintain the current load shedding plan, Bonneville is required to ensure that an alternative plan acceptable to Tacoma Power is put in place.
- 6.5 Firm Load Curtailments. Bonneville agrees to accept curtailments of Network Load as a reasonable mitigation for contingencies that require such load curtailments to protect the transmission systems of either Bonneville or Tacoma Power.

7. Scheduling

- 7.1. Designation of Network Resources. Bonneville's Network Resources under the Service Agreement constitute a contract for the purchase by Ohop from Bonneville of Bonneville system power, and may include a power purchase by Ohop from a resource interconnected with a third party. At such time as Bonneville intends to designate as a Network Resource under the Service Agreement another specific generation resource directly interconnected with Tacoma Power's Transmission System or interconnected with a third-party system not already specified in Exhibit A to the Service Agreement, this Agreement may be amended to provide applicable terms and conditions regarding the scheduling of such resource.
- 7.2. Scheduling Network Resources. Schedules for Bonneville's Network Resources under the Service Agreement shall be submitted to Tacoma Power consistent with industry requirements regarding e-tagging of pseudo-ties.
- 7.3. Modification of Scheduling Procedures. During the term of this Network Operating Agreement, either Party may modify the scheduling procedures applicable to delivery of Network Resources to Ohop, so long as any modified scheduling procedures are (a) transmitted to the other Party, (b) acknowledged and agreed to by an authorized representative from both Bonneville and Tacoma Power, consistent with Section 8.4. of the Service Agreement, and (c) consistent with all applicable Reliability Requirements.

8. Permits, Inspection, Metering and Communications

- 8.1. Right of Entry/Permit. If any equipment or facilities associated with any point of

² As described in footnote 1, Ohop and Tacoma have developed operating protocols and load shedding instructions will be communicated through these protocols.

interconnection and belonging to a Party are, or are to be, located on the property of the other Party, a permit to install, test, maintain, inspect, replace, repair, and operate such equipment and facilities during the term of this Agreement and to remove such equipment and facilities at the expiration of the term of this Agreement (together with the right of entry to said property at all reasonable times during the term of this Agreement to carry out the activities pursuant to such permit) is hereby granted to the other Party.

- 8.2. Inspection. During the term of this Agreement, each Party ("First Party") shall, upon receipt of reasonable prior notice from the other Party ("Second Party") specifying the date and time of the visit, provide access for the Second Party's representatives to the interconnected facilities of the First Party as may be reasonably necessary for such Second Party's performance of its obligations under this Agreement. The Second Party shall cause its representatives to observe during any such visit all of the First Party's safety and security procedures or requirements of which the Second Party is then notified.
- 8.3. Metering Equipment. Bonneville shall be responsible for all costs associated with the purchase, installation, operation, maintenance, repair and replacement of (and any necessary upgrades to) all revenue and interchange metering equipment necessary for Tacoma Power to provide Network Integration Transmission Service under the Service Agreement. All metering equipment and data of Bonneville shall conform to applicable Reliability Requirements. The Parties shall review the metering equipment prior to its installation to ensure conformance with such standards or practices.
- 8.4. Additional Metering Equipment. In addition to the metering equipment installed, each Party may at any time during the term of this Agreement install metering equipment; provided that, any such installation of such metering equipment shall not be inconsistent with permit provisions of Section 8.1 above. Any such metering equipment shall be owned, operated, and maintained by the Party installing such metering equipment.
- 8.5. Testing of Metering Equipment. Notwithstanding any other provision of this Agreement, each Party during the term of this Agreement shall, at its expense, test its metering equipment associated with this Agreement in accordance with applicable Reliability Requirements, and, if requested by the other Party, shall make additional tests or inspections of such metering equipment. Each Party shall give reasonable notice to the other Party of the time when any such test or inspection is to be made, and the Party receiving notice will have the opportunity to have representatives present at such test or inspection.
- 8.6. Adjustments. If any metering equipment fails to register, or if the measurement made by such metering equipment during a test made as provided above fails to meet the standards of such test, or if an error in meter reading occurs, adjustment shall be made correcting all measurements for the actual period during which such inaccurate measurements were made. Should any metering equipment at any time fail to register, or should registration thereof be so erratic as to be inherently unreliable, the capacity, energy and reactive power delivered shall be determined from the best available data. If an estimate is required due to metering equipment malfunction or failure, the method of estimating

capacity, energy and reactive power delivered shall be made available and agreed upon by both Parties. Any metering equipment tested and found to be not more than one percent (1 %) above or below normal shall be considered to be accurate insofar as correction of billing is concerned. If any meter is found to be out of tolerance by more than one percent (1%), then the Party owning such meter shall use its best efforts to adjust the meters immediately and accurately, and there shall be a retroactive adjustment of the inaccurate meter for the twelve (12)-month period prior to the test or inspection in which such inaccuracy is found or the date of the last test or inspection, whichever date is shorter. Any component of such installations found to be defective or inaccurate shall be adjusted, repaired, or replaced to provide accurate metering.

- 8.7. Billing Information. Bonneville shall during the term of this Agreement transmit, or cause to be transmitted, or otherwise made available electronically to Tacoma Power, the metered information of Bonneville's metering equipment, if any, (including kilowatt-hour and kiloVAR-hour) concerning electric power delivered under this Agreement. The metered information shall be transmitted or otherwise made available electronically in a format that is acceptable to Tacoma Power's billing function on a maximum time interval of one (1) hour or by mutual agreement to a longer time interval; such acceptance shall not be unreasonably withheld. With respect to currently installed and future replacement metering equipment, Tacoma Power shall use good faith efforts to work with the owners of such metering equipment to develop a format that is acceptable to Tacoma Power and such acceptance shall not be unreasonably withheld.
- 8.8. Exchange of Metered Data. The Party owning, operating, and maintaining each meter used to determine billing associated with the Service Agreement shall provide or arrange to be provided to the other Party all hourly meter readings and any more frequent load profile information, if existing, from each such meter. All meter reading information for a given month shall be validated and made available to the other Party as soon as reasonably possible in the succeeding month and no later than by 10:00 a.m. of the fifth (5th) working day of such succeeding month. All meter reading records and scheduled amounts shall be exchanged electronically between the Parties on a monthly basis. Each Party shall notify the other Party as soon as practicable of system configuration changes on its system or other events which may affect meter readings or access to meter reading information including, but not limited to, advance notice of planned line and substation outages and planned communications outages.
- 8.9. Use of Bonneville's Meter Reading Information. Consistent with Section 8.8 above, Bonneville shall transmit, or cause to be transmitted, or otherwise made available electronically to Tacoma Power its real and reactive power metering data, if any, at the delivery points, in a format compatible with the billing information systems used by Tacoma Power.
- 8.10. Metering and Communications Required for Integration of Network Resources. Bonneville shall be responsible for all costs associated with the installation, operation,

and maintenance of any metering and communications equipment necessary for the integration of any generation resource to be designated an on-system Network Resource under the Service Agreement and on Tacoma Power's Transmission System. Such equipment, operation, maintenance shall comply with all applicable laws and regulations including Reliability Requirements.

- 8.11. Metering and Communications Required for Ancillary Services. Bonneville shall be responsible for all costs associated with the installation, operation, and maintenance of any metering and communications equipment necessary for the provision of Ancillary Services by Bonneville or by a third party. All such metering and communication installations shall be installed, operated, and maintained pursuant to all applicable laws and regulations including Reliability Requirements.
- 8.12. Real-Time Data Acquisition.
- (a) Installation of real-time Telemetry equipment, if any, shall be performed by the Party responsible for providing such real-time Telemetry equipment. Any such real-time Telemetry equipment shall be owned, operated and maintained by the Party installing such equipment.
 - (b) Each Party shall permit the other Party to install, or cause to be installed, real-time Telemetry equipment reasonably acceptable to both Parties as may be necessary from time to time during the term of the Service Agreement to replace or upgrade the real-time Telemetry equipment as specified above. Any such replacement real-time Telemetry equipment is to be owned, operated and maintained by the Party installing such equipment.
- 8.13. Real-Time Data Acquisition Upgrades. Upgrades of real-time Telemetry equipment and data, if any, from time to time during the term of this Agreement to be received by Tacoma Power and Bonneville shall be at the reasonable discretion of Tacoma Power, as deemed necessary for reliability, security, and/or monitoring of Tacoma's Balancing Authority Area operations. To the extent Telemetry changes are required in order to meet applicable Reliability Requirements, Bonneville shall, at its own expense, install any metering equipment, data acquisition equipment, or other equipment and software necessary for the Telemetry related to Ohop's load to be received by Tacoma Power. Each Party shall be responsible for its cost of making any computer modifications or changes required to its own computer system(s) as necessary to implement this Section 8.13.

9. Operation and Maintenance

- 9.1. Maintenance Scheduling and Continuity of Service. Tacoma Power may require Curtailment or otherwise temporarily suspend service at the delivery points:
- (a) pursuant to Section 33 of the Tariff; and

- (b) without prior notice of such Curtailment or temporary suspension as may be necessary due to Force Majeure pursuant to Section 10 of the Tariff.

- 9.2. Emergency Planning and Operation. As the operator of its Transmission System, Tacoma Power may undertake planning, coordinating, and implementing emergency operations applicable to Tacoma Power's Transmission System to meet NERC and WECC Reliability Requirements and NWPP reliability planning and operations objectives. Bonneville and Tacoma shall work jointly to develop Operating Procedures to determine actions to be taken by each Party during conditions such as constraints on Tacoma's system that reduce Tacoma's ability to provide transfer service to all of Ohop's load, or curtailments to Bonneville's schedules that reduce Bonneville's ability to schedule at a level needed to serve all of Ohop's load. The Operating Procedure shall include coordinated actions for restoring Ohop's load following return to normal transmission system conditions.
- 9.3. Modification of Operating Procedures. During the term of this Service Agreement, either Party may modify the Operating Procedures applicable to delivery of Network Resources to Network Load, provided that any proposed modifications to the Operating Procedures are (a) transmitted to the other Party, (b) acknowledged and agreed to by an authorized representative from both Bonneville and Tacoma Power, and (c) consistent with all applicable Reliability Requirements.

10. Miscellaneous

- 10.1. Notices. Any formal notice to be served, given or made in connection with this Agreement shall be in writing and shall be directed as provided in the Service Agreement. Notices of an operating nature shall be given as provided in the Service Agreement.
- 10.2. Assignment. See section 8.9 of the Service Agreement.
- 10.3. Amendments. This Agreement may be amended (a) upon Tacoma Power's application to and receipt of approval from the Utility Board provided that the Utility Board determines that such changes are required to maintain consistency with applicable Reliability Requirements or to reflect, consistent with Good Utility Practice, modifications to Tacoma Power's Transmission System, and (b) by written agreement of the Parties.

11. Back-up Distribution Service

11.1. METERING

- 1. Tacoma Power Owned Meter. Tacoma Power will own, operate, and maintain the metering used at the point of interconnection between Tacoma Power and Ohop for the purpose of providing back-up distribution service. This meter is referred in this Network Operating Agreement as the "Tacoma Power-Ohop interconnection meter." When back-

up distribution service is provided, the energy and demand usage data obtained from this metering will be used to appropriately adjust the meter data measured by the BPA Ohop meter as described in more detail in Section 11.2 of these Operating Procedures.

11.2. BILLING FOR BACK-UP SERVICE

1. Ohop Served Through Back-up Configuration. When energy to serve Ohop load is delivered through the back-up distribution configuration, Tacoma Power will use data acquired from the Tacoma Power-Ohop interconnection meter to determine the transmission and ancillary services charges to BPA under the NITSA. Any charges related to back-up service will be identified in Exhibit C. These charges will be included in the invoice Tacoma provides BPA under the NITSA.
 - 1.1. For planned outages the hourly Tacoma Power-Ohop metered quantities will be used to determine the correct energy imbalance charges/credits. Energy imbalance charges will be included on the Ohop NITSA invoice.
2. Tacoma Power Served Through Back-up Configuration. When back-up distribution services are provided such that Tacoma Power's load is included in the meter data measured by the BPA Ohop meter at Mashel Prairie, the following additional billing process shall apply:
 - 2.1. Initial Billing. Since the Tacoma Power-Ohop interconnection meter data will not be available within the three business day time period, Tacoma will calculate the initial billing information and provided it to BPA without adjustments. This information will be used by BPA to create an estimated net billing for the month.
 - 2.2. Adjust Ohop Meter Data to Account for Tacoma Power Load. Once the Tacoma Power-Ohop interconnection meter data is available, Tacoma Power will use the data to recalculate the transmission and ancillary services billing:
 - 2.2.1. At the time of the monthly system peak, the Tacoma Power load will be subtracted from the Ohop metered load to determine the correct load ratio share for Ohop.
 - 2.2.2. The total Tacoma Power energy, adjusted for losses (using the same loss factor as that used for the Ohop transmission billing), will be subtracted from the total metered Ohop energy to determine the correct energy-based ancillary services charges and real power loss charges.
 - 2.2.3. Tacoma Power will use the meter data established in 2.2 to compensate Ohop for transmission service across Ohop's distribution system. A credit will be provided to BPA on the invoice Tacoma provides to BPA under this NITSA consistent with the terms outlined in this Exhibit E.
 - 2.2.4. BPA will use the data provided by Tacoma Power under section 2.2 to

calculate charges for Ancillary Services provided to Tacoma Power's load during Back-up service as described in Exhibit C, Part 1 of the NITSA. BPA will include these charges on Tacoma Power's Invoice.

- 2.2.5. For Planned outages Tacoma will schedule with BPA transmission service to Tacoma's load served through the Back-up Configuration. BPA will use Tacoma's load amounts established in Section 2.2 to determine energy imbalance amounts. BPA will use these amounts to calculate Energy Imbalance charges/credits to be included on the Tacoma Power invoice.
- 2.2.6. Any charges related to back-up service across Ohop's distribution system will be identified in Exhibit C.

When Tacoma Power has completed the transmission billing calculations with the adjusted metering information, it will provide the resulting transmission billing to BPA, who will render a revised final net bill for the month to Tacoma Power as soon as it is available.

Exhibit F

Power Factor Compensation Calculation Methodology

Calculation Methodology for VAr Losses Charge:

The compensation formula uses the measured Voltage-Amperes (VA) and Volts (V) at the applicable points of delivery and/or metering points. The compensation to be paid by Bonneville for Volt-Ampere reactive (VAr) for each hour during which the Ohop load did not achieve a power factor of at least 0.97 shall be calculated as set forth below.

The formula for VAr losses when VAr flow measured is from Tacoma Power to Ohop is:

$$\text{VAr}_{\text{loss}} = \text{VAr}_{\text{in-to-load}} - W \times 0.2506$$

The formula for VAr losses when VAr flow measured is from Ohop to Tacoma Power is:

$$\text{VAr}_{\text{loss}} = \text{VAr}_{\text{out-of-load}} - W \times 0.2506$$

Where $\text{VAr}_{\text{in-to-load}}$, $\text{VAr}_{\text{out-of-load}}$, and Watts (W) are as measured at each point of delivery and/or metering point. The $W \times 0.2506$ term credits VAr consumption by Ohop down to a power factor of 0.97.

In each hour, the VAr_{loss} is calculated by the above formula. When the calculated VAr_{loss} is a positive number it is accumulated with all other positive VAr_{loss} in the metering period, and multiplied by the VAr charge per VArH. Examples of conditions with VAr in-to-load and VAr out-of-load are given in the following.

Sample Calculations

Example: VAr in-to-load for 1 hour

| | | |
|---------------------|-------|---|
| Power Factor (p.f.) | 0.80 | $\text{VAr} = \tan(\cos^{-1} \text{p.f.}) \times W$ |
| Real Power | 4,000 | (kW) |
| Reactive Power | 3,000 | Voltage-Ampere reactive (kVAr) |

Formula for VAr losses:

$$\text{kVAr}_{\text{loss}} = \text{kVAr}_{\text{in-to-load}} - \text{kW} \times 0.2506 = 3,000 - 1,002 = 1,997 \text{ kVArH}$$

Reactive Charge (\$/kVArH) \$0.00098

kVAr Hourly Charge \$1.96

Example: kVArS out-of-load for 1 hour

| | | |
|----------------|-------|--------------------------------|
| Power Factor | 0.90 | |
| Real Power | 4,000 | (kW) |
| Reactive Power | 1,937 | Voltage-Ampere reactive (kVAr) |

Formula for VAr losses:

$$\text{kVAr}_{\text{loss}} = \text{kVAr}_{\text{out-of-load}} - \text{kW} \times 0.2506 = 1,937 - 1,002 = 934.5 \text{ kVArH}$$

Reactive Charge (\$/kVArH) \$0.00098

kVAr Hourly Charge \$0.92