

**BONNEVILLE POWER ADMINISTRATION
NETWORK INTEGRATION SERVICE TARIFF**

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1 **NETWORK INTEGRATION SERVICE TRANSMISSION TARIFF**

2 **PREAMBLE**

3 **Network Integration Transmission Service**

4 Bonneville will provide Network Integration Transmission Service pursuant to the terms
5 and conditions contained in this Tariff and Service Agreement. The service that Bonneville will
6 provide under this Tariff allows a Transmission Customer to integrate, economically dispatch
7 and regulate its current and planned Network Resources to serve its Network Load. Network
8 Integration Transmission Service also may be used by the Transmission Customer to deliver
9 non-firm energy purchases to its Network Load without additional charge.

10 **Relation to Point-to-Point Service**

11 To the extent that the transmission path for moving power from a Network Resource to a
12 Network Load includes the Eastern and Southern Interties, the terms and conditions for service
13 over such intertie facilities are stated in Bonneville' s Point-to-Point Transmission Service Tariff.
14 Also, transmission service for third-party sales which are not designated as Network Load will
15 be provided under Bonneville' s Point-to-Point Transmission Service.

1. DEFINITIONS

1.1 Ancillary Services

Ancillary services are those services necessary to support the transmission of power from resources to loads while maintaining reliable operation of Bonneville's Integrated Network Transmission System in accordance with Good Utility Practice.

1.2 Application

A written request by an Eligible Customer for transmission service pursuant to the provisions of this Tariff.

1.3 Commission

The Federal Energy Regulatory Commission (FERC).

1.4 Control Area

A Control Area is the electrical (not necessarily geographical) area within which a controlling utility operating under all North American Electric Reliability Council standards has the responsibility to adjust its generation on an instantaneous basis to match internal load and power flow across interchange boundaries to other Control Areas.

1.5 Customer-Served Load

Customer-Served Load is the monthly amount in megawatts of the Transmission Customer's Network Load that the Transmission Customer elects to serve on a firm basis from sources internal to its system or over nonfederal transmission facilities or pursuant to contracts other than the Network Integration Service Agreement. The Transmission Customer will not be charged for basic service under the Network Integration Service Agreement for the Customer-Served Load.

1.6 Designated Agent

1 Any entity that performs actions or functions required under this Tariff on behalf of
2 Bonneville, an Eligible Customer, or the Transmission Customer.

3 **1.7 Direct Assignment Facilities**

4 Facilities that have been or are constructed (or caused to be constructed) by Bonneville
5 for the sole use and benefit of facilitating an Application under this Tariff, the addition of a new
6 Member System, or addition of a new Network Resource and the costs of which may be directly
7 assigned to the Transmission Customer requesting the service in accordance with applicable
8 Commission policy. Direct assignment Facilities shall be specified in the Service Agreement
9 that governs service to the Transmission Customer.

10 **1.8 Eligible Customer**

11 Any of the following: (a) Bonneville for delivery of power under Service and Exchange
12 Agreements existing as of March 25, 1996, and for Bonneville's power sales either of which is to
13 (1) a direct-service industrial customer or (2) a Bonneville power customer whose total retail
14 load is equal to or less than 50 aMW during calendar year 1995; (b) any electric utility, Federal
15 power marketing agency or any other person generating electric energy for sale for resale; and
16 (c) any Designated Agent for an Eligible Customer. An entity may not use both Network
17 Integration Service and any other Bonneville transmission service contracted for after the
18 effective date of this Tariff for use of the Integrated Network Transmission system to serve its
19 native load . If provided for separately by contract or policy, Bonneville' s direct service
20 industrial customers shall be considered Eligible Customers. Other than Bonneville' s direct
21 service industrial customers, Bonneville shall not be required to provide direct delivery to end-
22 users through transactions for which the Commission is prohibited under Sections 212(g) and (h)
23 of the Federal Power Act (FPA) from ordering the provision of transmission service. A power

1 supplier acting in such capacity shall be an Eligible Customer only to the extent that it acts as a
2 Designated Agent for an Eligible Customer.

3 **1.9 Facilities Study**

4 An engineering study conducted by Bonneville to determine the required modifications to
5 Bonneville's Integrated Network Transmission System, including the estimated cost and
6 scheduled completion date for such modifications, which will be required to provide a requested
7 Network Integration Service, to add a new Network Transmission Customer, to add a new
8 Member System, to add a Network Resource or to provide service to additional load of an
9 existing Network Transmission Customer in accordance with the results of the System Impact
10 Study.

11 **1.10 Good Utility Practice**

12 Any of the practices, methods, and acts engaged in or approved by a significant portion
13 of the electric utility industry in the Western Systems Coordinating Council (WSCC) area during
14 the relevant time period, or any of the practices, methods, and acts which, in the exercise of
15 reasonable judgment in light of the facts known at the time the decision was made, could have
16 been expected to accomplish the desired result at the lowest reasonable cost consistent with good
17 business practices, reliability, safety, and expedition. Good Utility Practice is not intended to be
18 limited to the optimum practice, method, or act, to the exclusion of all others, but rather to be a
19 range of acceptable practices, methods, or acts generally accepted in the region and consistently
20 adhered to by Bonneville.

21 **1.11 Integrated Network Transmission System**

22 The Federal Columbia River Transmission System facilities excluding the Southern and
23 Eastern interties and generation integration segment facilities.

1 **1.12 Member System**

2 An Eligible Customer operating as a part of a lawful combination, partnership,
3 association, or joint action agency composed exclusively of Eligible Customers.

4 **1.13 Network Integration Transmission Service**

5 Network Integration Transmission Service allows a Transmission Customer to integrate,
6 plan, economically dispatch and regulate its Network Resources to serve its Network Load in a
7 manner comparable to that in which Bonneville utilizes its Integrated Network Transmission
8 System. Network Integration Transmission Service also may be used by the Transmission
9 Customer to deliver nonfirm energy purchases on an as available basis to its Network Load
10 without additional charge.

11 **1.14 Network Load**

12 The load of a Transmission Customer, including the entire load of all Member Systems
13 designated pursuant to Section 6. The entire load includes the retail energy load during any
14 given time period plus distribution losses and system power requirements. A Transmission
15 Customer's Network Load shall not be reduced to reflect any portion of such load served by the
16 output of any generating facilities owned, or generation purchased, by the Transmission
17 Customer, its Member Systems or other customers it serves under this Tariff.

18 **1.15 Network Resources**

19 Designated resources used by a Transmission Customer to provide electric service to its
20 Network Load consistent with reliability criteria generally accepted in the region. Network
21 Resources shall include all owned and purchased Transmission Customer generating resources

1 that are located in the Bonneville Control Area or connected to the Electric System of such
2 Transmission Customer, any Member System or its other customers serviced under this Tariff.
3 A Transmission Customer also may designate as Network Resources any generating resources
4 (or portion thereof) located in another utility's Control Area and power purchased by the
5 Transmission Customer from another utility and used to provide reliable service to Network
6 Load. Network Resources shall not include that portion of the capacity of any such generating
7 resource that is committed on a firm basis for sale to third parties not designated as Network
8 Load or which otherwise cannot be called upon to meet the Transmission Customer's Network
9 Load on a non-interruptible basis.

10 **1.16 Network Upgrade**

11 Modifications and/or additions to transmission-related facilities that are integrated with
12 and support Bonneville's Integrated Network Transmission System to satisfy, at least in part, an
13 Application as well as provide for the general benefit of users of such Integrated Network
14 Transmission System.

15 **1.17 Parties**

16 Bonneville and the Transmission Customer receiving service under this Tariff.

17 **1.18 Point-to-Point Transmission Services Tariff**

18 Bonneville's Point-to-Point-Transmission Service Tariff as such tariff may be amended
19 and/or superseded from time to time.

20 **1.19 Regional Transmission Association**

1 A voluntary organization of transmission owners, transmission users and other entities
2 approved by the Commission to efficiently coordinate transmission planning (and expansion),
3 operation and use on a regional (and interregional) basis.

4 **1.20 Service Agreement**

5 The initial agreement and amendments thereto between Bonneville and a Transmission
6 Customer for Network Integration Service under this Tariff.

7 **1.21 Service Commencement Date**

8 The date Bonneville begins to provide service pursuant to the terms of an executed
9 Service Agreement or the date Bonneville begins to provide service in accordance with Section
10 4.1 of this Tariff.

11 **1.22 System Impact Study**

12 An assessment by Bonneville of (i) the adequacy of the Integrated Network Transmission
13 System to accommodate a request for Network Integration Service pursuant to the terms of this
14 Tariff and (ii) any costs (e.g. system redispatch, Direct Assignment Facilities or Network
15 Upgrades) that would be incurred in order to accommodate a request for firm transmission
16 service pursuant to this Tariff based on information then available to Bonneville.

17 **1.23 System Operating Committee**

18 A group made up of representatives from the Transmission Customers and Bonneville
19 established to coordinate operating criteria and other technical considerations required for
20 implementation of this Tariff.

21 **1.24 System Operations Agreement**

1 An agreement that contains the terms and conditions under which the Transmission
2 Customer shall operate its facilities and the technical and operational matters associated with the
3 implementation of this Tariff.

4 **1.25 Transmission Customer**

5 An Eligible Customer that has executed a Service Agreement for Network Integration
6 Service pursuant to this Tariff or receives service under this Tariff.

7 **2. NATURE OF NETWORK INTEGRATION SERVICE**

8 **2.1 Scope of Service**

9 Network Integration Service is a transmission service that allows Transmission
10 Customers to efficiently and economically utilize their Network Resources and other generation
11 resources to serve their Network Load located in Bonneville's Control Area and any additional
12 load that may be designated pursuant to Section 6.0.. A Network Integration Service
13 Transmission Customer must obtain or provide certain Ancillary Services. Bonneville will offer
14 these Ancillary Services, pursuant to an appropriate service agreement, on a nondiscriminatory
15 basis to any Eligible Customer required hereunder to purchase or provide such services as a
16 precondition to receiving Network Integration Service.

17 **2.2 Firm Service**

18 A Transmission Customer shall have the right to use this Tariff for the delivery of power
19 from Network Resources to Network Loads on a basis that is comparable to Bonneville's use of
20 its Integrated Network Transmission System. Service over Bonneville's Integrated Network
21 Transmission System for the delivery of power from Network Resources to Network Load shall

1 have priority over all nonfirm uses of Bonneville's Integrated Network Transmission System by
2 Bonneville or third parties.

3 **2.3 Nonfirm Service**

4 A Transmission Customer also may use this Tariff to deliver energy to its Network
5 Loads from resources that have not been designated as Network Resources. Such deliveries shall
6 be on a nonfirm basis, subject to available capacity and at no additional transmission charge.
7 Unless otherwise provided in Section 9, deliveries pursuant to this Tariff from resources other
8 than Network Resources will be curtailed after nonfirm service under Bonneville's Point-to-
9 Point Transmission Service Tariff.

10 **2.4 Direct Assignment Facilities**

11 The Service Agreement for Network Integration Service will establish the terms and
12 conditions for service over directly assigned facilities, including identifying the facilities
13 providing such service. In accordance with appropriate Commission policy, the Transmission
14 Customer will pay Bonneville for transmission service over such facilities as provided in the NT-
15 96 Rate Schedule or its successor.

16 **2.5 Restrictions on Use of Service**

17 Network Integration Service shall not be used for: (i) wholesale sales of capacity or
18 energy by the Transmission Customer or its Member Systems to entities not designated as their
19 Network Load ; or (ii) directly or indirectly providing transmission service by the Transmission
20 Customer to third parties.

1 **3. AVAILABILITY OF NETWORK INTEGRATION SERVICE**

2 **3.1 General Conditions**

3 In accordance with the provisions of this Tariff, Network Integration Service shall be
4 provided by Bonneville to allow a Transmission Customer to integrate, plan, economically
5 dispatch, and regulate its Network Resources and nonfirm purchases to serve its Network Load,
6 via Bonneville' s Integrated Network Transmission system, in a manner comparable to that in
7 which Bonneville utilizes its Integrated Network Transmission System.

8 **3.2 Network Operating Requirement**

9 As a condition of obtaining Network Integration Service, the Transmission Customer
10 shall execute a System Operations Agreement with Bonneville. The System Operations
11 Agreement will recognize that the Transmission Customer shall either: (i) operate as a Control
12 Area under applicable guidelines of the NERC, the WSCC, and the NWPP, or (ii) satisfy its
13 Control Area requirements, including all Ancillary Services, by contracting with Bonneville; or
14 (iii) satisfy its Control Area requirements, including all Ancillary Services, by contracting with
15 another entity which Bonneville accepts as able to satisfy NERC, WSCC, and NWPP
16 requirements. Bonneville shall not unreasonably refuse to accept contractual arrangements with
17 another entity for Ancillary Services. The Transmission Customer and Bonneville acknowledge
18 that parallel flow issues may arise between them. The Transmission Customer' s use of the
19 Integrated Network Transmission System when such parallel flow issue is raised will be based
20 on an analysis of the ratings of the affected transmission facilities of the Transmission Customer,
21 Bonneville, and any third party; the actual power flows over those facilities; and each party' s
22 obligations across the facilities. This will apply to both existing and planned facilities. Ratings
23 and usage of facilities will be determined based on applicable regional guidelines, such as the

1 guidelines of the Northwest Regional Transmission Association; the Western Systems
2 Coordinating Council (WSCC) Reliability Criteria; the WSCC Procedures for Regional
3 Planning, Project Review, and Rating Transmission Facilities; and the Northwest Power Pool
4 Operating Manual. Power scheduled, or deemed to flow, over the transmission facilities of the
5 Transmission Customer, Bonneville, and any applicable third party shall not exceed the ratings
6 of those facilities.

7 **3.3 Bonneville Responsibilities**

8 Bonneville shall plan, construct, operate, and maintain its Integrated Network
9 Transmission System in accordance with Good Utility Practice in order to provide the
10 Transmission Customer with Network Integration Service over Bonneville's Integrated Network
11 Transmission System in accordance with this Tariff. Bonneville shall include the Transmission
12 Customer's Network Load in its Integrated Network Transmission System planning and shall,
13 consistent with Good Utility Practice, endeavor to construct and place into service sufficient
14 transmission capacity to deliver the Transmission Customer's Network Resources to serve
15 Network Load on a basis comparable to Bonneville's delivery of its own generating and
16 purchased resources.

17 **3.4 Transmission Customer Redispatch Obligation**

18 As a condition of receiving Network Integration Service, a Transmission Customer
19 agrees to redispatch its Network and other resources as requested by Bonneville to create
20 additional firm transmission capacity on Bonneville's Integrated Network Transmission System
21 to allow Bonneville to provide new firm transmission service. To the extent practicable, the
22 redispatch of resources pursuant to this Section shall be on a least cost, nondiscriminatory basis

1 as between all Network Integration Transmission Customers and Bonneville. Cost responsibility
2 for redispatch is discussed in Section 9.3.

3 **3.5 Reciprocity**

4 A Transmission Customer receiving transmission service under this Tariff agrees to
5 provide comparable service to Bonneville on similar terms and conditions over facilities owned
6 or controlled by the Transmission Customer and its affiliates. A Transmission Customer that has
7 on file with the Commission transmission tariffs of general applicability that meet the
8 Commission's comparability of service standard shall be deemed to meet this reciprocity
9 requirement. If a Transmission Customer and its affiliates do not own or control transmission
10 facilities, then Bonneville may require the Transmission Customer to designate the other party to
11 the transaction, if it owns or controls transmission facilities, as the provider of reciprocal service
12 for purposes of this paragraph, unless the other party is subject to Section 211 of the Federal
13 Power Act or is a member of a FERC approved Regional Transmission Association.

14 **4. INITIATING SERVICE**

15 **4.1 Conditions Precedent for Receiving Service**

16 Subject to the terms and conditions of this Tariff, Bonneville shall provide Network
17 Integration Service to any Eligible Customer, provided that: (i) the Eligible Customer has
18 completed an Application for service as provided under this Tariff; (ii) the Eligible Customer and
19 Bonneville have completed the technical arrangements set forth in Section 4.6 below; and
20 (iii) the Eligible Customer has executed a Service Agreement and a System Operations
21 Agreement or requested in writing that Bonneville provide service under an unexecuted Service
22 Agreement until the appropriate Regional Transmission Association and/or the Commission

1 issue a final determination on disputed issues. The Eligible Customer must agree to (i)
2 compensate Bonneville for services provided at whatever Bonneville rate the Commission
3 ultimately approves for Network Integration Service under this Tariff and (ii) comply with the
4 terms of this Tariff.

5 **4.2 Application Procedures**

6 An Eligible Customer requesting service under this Tariff must submit a written
7 Application to: Bonneville Power Administration, **Attention: Manager, Transmission**
8 **Business, P.O. Box 3621; Portland, Oregon, 97208-3621** with as much notice as possible but
9 no later than 60 days in advance of the calendar month in which service is to commence. A
10 completed Application shall provide all of the following information:

- 11 (i) The identity, address, telefax number and telephone number of the party
12 requesting service and of the party's designated contact person.
- 13 (ii) A statement that the party requesting service is, or will be upon commencement of
14 service, an Eligible Customer under this Tariff.
- 15 (iii) A description of the Network Load (subdivided into the load of any Member
16 Systems or other customers whose loads are designated as Network Load). This
17 description should separately identify and provide the Eligible Customer's best estimate
18 of the total loads to be served at each transmission voltage level, and the loads to be
19 served from each Bonneville substation at the same transmission voltage level. The
20 description should include a 10-year forecast of seasonal load and resource requirements
21 beginning with the first year after the service is scheduled to commence.
- 22 (iv) The amount and location of any interruptible loads included in the Network Load.
23 This shall include the summer and winter capacity requirements for each interruptible

1 load (had such load not been curtailed), that portion of the load subject to curtailment, the
2 conditions under which a curtailment can be implemented and any limitations on the
3 amount and frequency of curtailments. An Eligible Customer should identify the amount
4 of curtailed customer load (if any) included in the 10-year load forecast provided in
5 response to (iii) above.

6 (v) A description of Network Resources (current and 10-year projection), which shall
7 include, for each Network Resource in an appropriate dynamic data format (PSS/E or
8 WSCC):

- 9 - Unit size and amount of capacity from that unit to be designated as
10 Network Resource.
- 11 - Var capability (both leading and lagging) of all generators.
- 12 - Operating restrictions.
 - 13 - Any periods of restricted operations throughout the year
 - 14 - Minimum loading level of unit
 - 15 - Normal operating level of unit
 - 16 - Any must-run unit designations required for system
17 reliability or contract reasons
- 18 - Approximate variable generating cost (\$/megawatthour) for redispatch
19 computations.
- 20 - Arrangements governing sale and delivery of power to third parties, which
21 are not designated Network Loads, from generating facilities located in the
22 Bonneville Control Area, where only a portion of unit output is designated
23 as a Network Resource.

1 - Description of purchased power designated as a Network Resource
2 including source of supply, Control Area location, transmission
3 arrangements, and delivery point(s) to the Bonneville Integrated Network
4 Transmission System.

5 (vi) Description of Eligible Customer' s transmission system in an appropriate load
6 flow format (PSS/E, or WSCC):

7 - Description of all lines and transformers operated at 34.5 kilovolt and
8 higher.

9 - Operating restrictions needed for reliability.

10 - Operating guides employed by system operators.

11 - Contractual restrictions or committed uses of the Eligible Customer' s
12 transmission system, other than the Eligible Customer' s Network Loads
13 and Resources.

14 - Location of Network Resources described in Section 4.2(v).

15 - Ten (10)-year projection of system expansions or upgrades.

16 - Transmission system maps that include any proposed expansions or
17 upgrades.

18 - Thermal ratings of Eligible Customer' s Control Area transmission
19 facilities.

20 - Information identifying (i) facilities that are integrated with and support
21 Bonneville' s Integrated Network Transmission System; and (ii) how the
22 Transmission Customer uses such facilities;

1 (vii) Service commencement date and the term of the requested Network Integration
2 Service.

3 Unless the Parties agree to a different time frame, Bonneville shall acknowledge the
4 request within ten (10) days of receipt. The acknowledgment shall include a date by which a
5 response will be sent to the Eligible Customer and a statement of any fees associated with
6 responding to the request (e.g., system impact studies).

7 If an Application fails to meet the requirements of this Tariff, Bonneville shall notify the
8 Eligible Customer requesting service within fifteen (15) days of receipt and specify the reasons
9 for such failure. Whenever possible Bonneville shall attempt to remedy minor deficiencies in the
10 Application through informal communications with the Eligible Customer. Bonneville shall not
11 divulge information from the Application to its Marketing Department.

12 **4.3 Insufficient Capacity**

13 In the event that there is insufficient capacity to initially meet the request, Bonneville
14 shall offer, at the Transmission Customer's expense, to make sufficient capacity available
15 through construction, redispatch or by otherwise rearranging its own use of the Integrated
16 Network Transmission System.

17 **4.4 Processing Fee**

18 An Application for Network Integration Transmission Service also shall include a non-
19 refundable processing fee of \$2,500. Such fee shall be required of all Eligible Customers. The
20 fee is intended to cover expenses incurred by Bonneville to process a Completed Application
21 pursuant to sections 4.1, 4.2, and 4.6. This fee does not apply to costs to complete System
22 Impact Studies or Facility studies, and to add new facilities pursuant to sections 7.1, 7.2 and 7.4.

23 **4.5 Queue Priority**

1 Applications for Network Integration Service or requests to add new Network Resources
2 or new Member Systems, along with applications for other Bonneville firm transmission
3 services, will be assigned a priority according to the date and time upon which the application is
4 received, with the earliest application receiving the highest priority.

5 **4.6 Technical Arrangements to be Completed Prior to Commencement of Service**

6 Service under this Tariff shall not commence until Bonneville and the Transmission
7 Customer, or a third party which has contracted to provide Control Area Services, have installed
8 all metering facilities, remote terminal units, communications equipment, and associated
9 equipment necessary to ensure that the Transmission Customer's Network Loads and Network
10 Resources operate in a Control Area consistent with NERC, WSCC, and NWPP guidelines and
11 any additional requirements reasonably and consistently imposed to ensure the reliable operation
12 of the Network Integration Transmission System. Bonneville shall exercise reasonable efforts, in
13 coordination with the Transmission Customer, to complete such arrangements as soon as
14 practical prior to the Service Commencement Date.

15 **4.7 Transmission Customer Facilities**

16 Bonneville's provision of Network Integration Service shall be conditioned upon the
17 Transmission Customer's constructing, maintaining, and operating the facilities on its side of
18 each point of interconnection that are necessary to reliably interconnect and deliver power from
19 the Integrated Network Transmission system to the Transmission Customer and/or its Member
20 Systems. The Transmission Customer shall be solely responsible for constructing and/or
21 installing and operating all facilities on the Transmission Customer's side of each such
22 interconnection point.

23 **4.8 Termination of Service**

1 A Transmission Customer may terminate service under this Tariff no earlier than 2 years
2 after providing Bonneville with written notice of the Transmission Customer' s intention to
3 terminate. A Transmission Customer' s provision of notice to terminate service under this Tariff
4 shall not relieve the Transmission Customer of its obligation to pay Bonneville any rates,
5 charges, or fees, including charges related to the construction of Direct Assignment Facilities or
6 Network upgrades, for service previously provided under the applicable Service Agreement or
7 the System Operations Agreement, and which are owed to Bonneville as of the date of
8 termination.

9 **5. NETWORK RESOURCES**

10 **5.1 Designation of Network Resources**

11 Network Resources shall include all generation owned or purchased by the Transmission
12 Customer, except for capacity sold to entities not designated as Network Load. All of the owned
13 and/or purchased resources that were serving such Transmission Customer' s or its Member
14 Systems' Network Loads under firm agreements entered into on or before the Service
15 Commencement Date shall be designated as Network Resources. Such Network Resources shall
16 remain Network Resources until the Transmission Customer terminates the designation .

17 **5.2 Termination of Network Resources**

18 A Transmission Customer may terminate the designation of all or part of a generating
19 resource as a Network Resource if the Transmission Customer provides at least 60 days written
20 notification to Bonneville that the terminated resource will not be operated to serve any portion
21 of the Transmission Customer's Network Load for the time period that such resource is not
22 designated as a Network Resource. The Transmission Customer may later redesignate the

1 resource as a Network Resource in accordance with the provision of Section 5.5. If the
2 Transmission Customer has committed to make a firm system sale to a third party not designated
3 as a Network Load using a portion of the capacity of more than one Network Resource,
4 Bonneville will treat each Network Resource as making a representative portion of such capacity
5 sale based on the likely loadings of each generating resource that will occur under representative
6 system conditions (e.g., off-peak and on-peak).

7 **5.3 Operation of Network Resources**

8 A Transmission Customer shall not operate any of its generating facilities located in the
9 Transmission Customer's or Bonneville's Control Areas such that the output of those facilities
10 exceeds the sum of: (i) the capacity from those facilities that have been designated as Network
11 Resources plus; (ii) the amount of power from those facilities scheduled for delivery to a third
12 party which is not a designated Network Load. When a Transmission Customer sells power or
13 energy to a third party which is not a designated Network Load from a Network Resource
14 located within Bonneville's Control Area, the Transmission Customer shall arrange transmission
15 service under the applicable Bonneville tariff or transmission agreement .

16 **5.4 Transmission Arrangements for Network Resources Located Outside the** 17 **Bonneville Control Area**

18 It shall be the Transmission Customer's responsibility to make any transmission
19 arrangements necessary for delivery of power produced from a Network Resource located
20 outside the Bonneville Control Area to the Integrated Network Transmission System.

21 **5.5 Designation of New Network Resources**

22 A Transmission Customer may request the designation of a new Network Resource by
23 providing Bonneville with as much advance written notice as practicable, but not less than 60

1 days. Bonneville must satisfy the requirements of applicable environmental statutes prior to
2 committing to the additional service. In determining whether the Transmission Customer has
3 provided sufficient notice for Bonneville to provide firm service from a newly designated

4 Network Resource, Bonneville shall apply the same standards as it would apply to its own newly
5 designated resources. Until Bonneville has completed transmission facilities or upgrades
6 determined in accordance with Section 7 to be necessary for firm delivery of a new Network
7 Resource to the Transmission Customer's Network Load, Bonneville will deliver power from
8 such Network Resource pursuant to this Tariff but only to the extent that such service does not
9 impair the reliability of service to existing Transmission Customers under this Tariff and the
10 Point-to-Point Tariff or to Bonneville's firm power and transmission contracts in effect prior to
11 the effective date of this Tariff. Notice of a Transmission Customer's intent to designate a new
12 Network Resource shall include sufficient engineering and technical information to permit
13 Bonneville to perform a System Impact Study addressing the transmission requirements
14 associated with delivery of such new Network Resource to the Transmission Customer's
15 Network Load as set forth in Section 4.2.

16 **5.6 Limitation on Designation of Network Resources**

17 A Transmission Customer shall designate an amount (in MW) of Network Resources that
18 it owns or has committed to purchase pursuant to an executed contract, or shall supply
19 Bonneville with such other evidence establishing that execution of a purchase contract is
20 contingent upon the availability of transmission service under this Tariff.

1 **6. DESIGNATION OF MEMBER SYSTEMS BY TRANSMISSION**
2 **CUSTOMERS RECEIVING NETWORK INTEGRATION SERVICE**

3 **6.1 Member Systems**

4 A Transmission Customer may designate the individual Member Systems on whose
5 behalf Bonneville shall provide Network Integration Service. The Member Systems shall be
6 specified in the Service Agreement.

7 **6.2 New Member Systems Connected With Bonneville**

8 A Transmission Customer shall provide Bonneville with as much advance written notice
9 as reasonably practicable of the designation of additional entities that will be added to
10 Bonneville' s Control Area as new Member Systems. Bonneville shall provide Network
11 Integration Service for any such new Member System, provided that: (i) Bonneville reasonably
12 determines in accordance with Section 7 that the Integrated Network Transmission System can
13 reliably accommodate such new Member System; and (ii) the Transmission Customer agrees to
14 pay, pursuant to the NT-96 Rate Schedule or its successors, the costs of any Direct Assignment
15 facilities that Bonneville reasonably determines must be installed to interconnect reliably such
16 new Member System with the Bonneville Integrated Network Transmission System in
17 accordance with applicable Commission policy. The engineering and technical specifications for
18 any such new interconnection shall be set forth in an amendment to the Service Agreement under
19 the Tariff. Until such Direct Assignment facilities are completed, Bonneville shall agree to
20 provide Network Integration Service out of existing transmission capacity, pursuant to the
21 prioritization described in Section 4.5 above, to the extent such service would not impair the
22 reliability of service to other Transmission Customers under this Tariff and the Point-to-Point
23 tariff or to Bonneville' s firm power sales, and transmission contracts in effect on the effective

1 date of this Tariff, and if the Transmission Customer agrees to pay the costs incurred by
2 Bonneville to provide such service.

3 **6.3 Member Systems Not Connected with Bonneville**

4 This Section applies to both initial designation pursuant to Section 6.1 and the subsequent
5 addition of new Member Systems. To the extent that a Transmission Customer desires to obtain
6 transmission service for a Member System that is not connected to the Integrated Network
7 Transmission System, the Transmission Customer shall have the option of: (i) electing to
8 include such Member System by including the entire load of that Member System as Network
9 Load for all purposes under this Tariff and designating Network Resources in connection with
10 such additional Network Load; or (ii) excluding the load of that Member System from its
11 Network Load and purchasing other transmission service from Bonneville. To the extent that a
12 Transmission Customer gives notice of its intent to add a new Member System as part of its
13 Network Load pursuant to this Section and sufficient capacity is not available on the Integrated
14 Network Transmission System to provide the requested service pursuant to the prioritization
15 described in Section 4.5 above, Bonneville shall perform a Facilities Study pursuant to Section
16 7.2. In addition, if the Transmission Customer so elects, to the extent the requested service can
17 be provided in whole or in part by redispatching the system, the Transmission Customer shall
18 pay the costs caused by the redispatch in accordance with Commission policy.

1 **6.4 New Interconnection Points**

2 To the extent a Transmission Customer desires to add a newly constructed
3 interconnection point between the Integrated Network Transmission System and a Member
4 System, the Transmission Customer shall provide Bonneville with as much advance written
5 notice as reasonably practicable; however, Bonneville shall not be obligated to provide
6 additional
7 service with respect to such interconnection point until such new interconnection is established.
8 Bonneville shall add such new interconnection point provided that Bonneville reasonably
9 determines that the Bonneville Integrated Network Transmission System can reliably
10 accommodate such new interconnection point. The Transmission Customer shall be responsible
11 for the costs of any incremental facilities associated with such new interconnection. The
12 engineering and technical specifications for such new interconnection point shall be set forth in a
13 separate interconnection agreement to be negotiated by the Parties.

14 **6.5 Declared Customer-Served Load**

15 Declared Customer-Served Load is a list of 12 monthly numbers representing the
16 Transmission Customer' s "Customer-Served Load" which must be provided to Bonneville if the
17 Transmission Customer desires to be billed for service to less than its Network Load for the basic
18 service under the NT 96 rate schedule. Decreases to any of these numbers represent increases in
19 service pursuant to this Tariff and shall be treated as a request for new service pursuant to
20 Section 4 hereof, and increases to any of these numbers shall be treated as a termination of
21 service and shall require two (2) years notice. These numbers shall be specified in the Network
22 Integration Service Agreement.

1 **7. TRANSMISSION FACILITIES OR UPGRADES RELATED TO**
2 **DESIGNATION OF NEW NETWORK RESOURCES AND MEMBER**
3 **SYSTEMS**

4 **7.1 System Impact Study**

5 Once a Transmission Customer provides Bonneville with notice of its intent to designate
6 a new Network Resource pursuant to Section 5.5, or a new Member System pursuant to
7 Section 6, Bonneville and the Transmission Customer shall execute an agreement under which
8 Bonneville shall perform a System Impact Study to determine the feasibility of integrating such
9 new Network Resource or new Member System into Bonneville's Integrated Network
10 Transmission System. In performing the System Impact Study, Bonneville shall apply the same
11 methods and criteria that it employs in integrating new resources acquired by Bonneville.
12 Bonneville shall complete the System Impact Study within 60 days or will provide the
13 Transmission Customer a written explanation of when the study will be completed and the
14 reasons for the delay. A Transmission Customer shall be responsible for the cost of the System
15 Impact Study and shall be provided with the results thereof, including relevant workpapers.
16 Bonneville's methodology for completing a System Impact Study is set forth in Appendix B.

17 **7.2 Facilities Study**

18 Based on the results of the System Impact Study, Bonneville also may perform, pursuant
19 to a separate agreement with the Transmission Customer, a Facilities Study addressing the
20 detailed engineering, design, and cost of incremental transmission facilities. The Facilities Study
21 shall be completed as soon as reasonably practicable and will be used by Bonneville to provide
22 the Transmission Customer with a detailed estimate of the cost for constructing incremental
23 facilities. The Transmission Customer shall be responsible for the costs of the Facilities Study

1 and shall be provided with the results thereof, including relevant workpapers. Bonneville shall
2 be responsible for the costs of any Facilities Study undertaken to determine the costs of adding
3 incremental facilities associated with Bonneville's addition of new resources. Such costs will be
4 booked by Bonneville in accordance with Section 12.

5 **7.3 Due Diligence**

6 Bonneville shall use due diligence to install any transmission facilities required to
7 integrate a new Network Resource or to interconnect a new Member System designated by the
8 Transmission Customer in accordance with Section 6.

9 **7.4 Transmission Costs Associated with Adding New Network Resources and New** 10 **Member Systems**

11 After the Service Commencement Date, the Transmission Customer and Bonneville each
12 shall be responsible, consistent with Commission policy, for the incremental transmission facility
13 costs associated with integration of their respective new Network Resources, new Member
14 Systems and new Network Load.

15 **7.5 Changes in Service Requests**

16 Under no circumstances shall a Transmission Customer's decision to cancel or delay the
17 addition of a new Network Resource and/or designation of a new Member System in any way
18 reduce or relieve the Transmission Customer's obligation to pay the costs of any incremental
19 facilities constructed by Bonneville and charged to the Transmission Customer pursuant to this
20 Section or Section 6; provided, however, that upon receipt of a Transmission Customer's written
21 notice of such a cancellation or delay, Bonneville shall use the same reasonable efforts to
22 mitigate the costs and charges owed to Bonneville as it would to reduce its own costs and
23 charges.

1 **7.6 Annual Load and Resource Information Updates**

2 A Transmission Customer shall provide Bonneville with annual updates of Network Load
3 and Network Resource forecasts consistent with those included in its Application for Network
4 Integration Service under this Tariff. The Transmission Customer also shall provide Bonneville
5 with timely written notice of material changes in any other information provided in its
6 Application relating to the Transmission Customer' s Network Load, Network Resources, its
7 transmission system, or other aspects of its facilities or operations affecting Bonneville' s ability
8 to provide reliable service under this Tariff.

9 **8. ANCILLARY SERVICES**

10 Ancillary services include all services necessary to support the transmission of electric
11 power from resources to load while maintaining reliable operation of the Integrated Network
12 Transmission System. A Transmission Customer may purchase the ancillary services necessary
13 for prudent utility operation from Bonneville or from another supplier where the purchase is
14 consistent with Good Utility Practice and technically feasible. To the extent that Bonneville
15 provides itself with any ancillary services, or is capable of providing itself with any ancillary
16 services, Bonneville will be required to offer similar services to the Transmission Customer
17 pursuant to Good Utility Practice. The specific ancillary services are described in Appendix D.
18 Prices and/or compensation methods are described in Bonneville' s APS Rate Schedule or its
19 successor. The Ancillary services offered by Bonneville are those listed below.

20 **8.1 Scheduling and Dispatch**

21 **8.2 Control Area Reserves for Resources**

22 **8.3 Control Area Reserves for Interruptible Resources**

- 1 **8.4** Load Regulation
- 2 **8.5** Transmission Losses
- 3 **8.6** Energy Imbalance

4 **9. LOAD SHEDDING AND CURTAILMENTS**

5 **9.1 Emergency Procedures**

6 Prior to the commencement of service hereunder, Bonneville and the Transmission
7 Customer shall establish emergency load shedding and curtailment procedures with the objective
8 of responding to emergencies on the Integrated Network Transmission System. The Parties will
9 implement such programs during any period when Bonneville determines that a transmission
10 capacity constraint exists and such procedures are necessary to alleviate such constraint.
11 Bonneville will notify all affected Transmission Customers in a timely manner of any scheduled
12 interruption (e.g., scheduled maintenance).

13 **9.2 Least Cost Resource Redispatch to Alleviate Transmission Constraints**

14 During any period when Bonneville determines that a transmission constraint exists on
15 the Integrated Network Transmission System, and such constraint may impair the reliability of
16 the Bonneville system or adversely affect the economic operations of either Bonneville or a
17 Transmission Customer, and when sufficient time is available, Bonneville shall take whatever
18 actions, consistent with Good Utility Practice, that are reasonably necessary to maintain the
19 reliability of the Bonneville system and to avoid interruption of service. After nonfirm deliveries
20 from non-Network Resources are curtailed (but only to the extent that such curtailments help
21 relieve the transmission constraint), to the extent Bonneville determines that the reliability of the
22 Integrated Network Transmission System can be maintained by redispatching resources

1 (including reductions in off-system purchases and sales), Bonneville shall initiate procedures
2 pursuant to the System Operations Agreement or pursuant to provisions in individual service
3 agreements to redispach Bonneville' s and its Transmission Customers' resources on a least-cost
4 basis without regard to the ownership of such resources. Any redispach under this Section shall
5 not be unduly discriminatory as between Bonneville and its Transmission Customers

6 **9.3 Cost Responsibility for Least Cost Redispatch**

7 Whenever Bonneville implements least-cost redispach procedures, pursuant to Sections
8 3.4 and 9.2, to relieve a capacity constraint, Bonneville shall determine the total cost impact of
9 such procedures. Bonneville and its Transmission Customers shall each bear a proportionate
10 share of the total redispach cost impact pursuant to FERC guidelines and as implemented in the
11 NT-96 Rate Schedule or its successor.

12 **9.4 Curtailments of Scheduled Deliveries**

13 To the extent that a transmission constraint on the Bonneville Integrated Network
14 Transmission System cannot be relieved through the implementation of least-cost redispach
15 procedures and Bonneville determines that it is necessary for Bonneville and the Transmission
16 Customer to curtail scheduled deliveries, the Parties shall curtail such schedules in accordance
17 with previously established curtailment procedures.

18 **9.5 Allocation of Curtailment**

19 To the extent practicable and consistent with Good Utility Practice, any scheduling
20 curtailment shall be shared by Bonneville and its Transmission Customers on a pro rata basis,
21 unless otherwise agreed. Bonneville shall not direct a Transmission Customer to curtail
22 schedules to an extent greater than Bonneville would curtail Bonneville' s schedules under
23 similar circumstances.

1 **9.6 Load Shedding**

2 To the extent that a transmission constraint exists on Bonneville' s Integrated Network
3 Transmission System and Bonneville determines that it is necessary for Bonneville and the
4 Transmission Customer to shed load, the Parties shall shed load in accordance with previously
5 established load shedding procedures under the System Operations Agreement.

6 **9.7 System Reliability**

7 Notwithstanding any other provisions of this Tariff, Bonneville reserves the right,
8 consistent with Good Utility Practice and on a not unduly discriminatory basis, to interrupt
9 Network Integration Service, without liability on Bonneville' s part, for the purpose of making
10 necessary adjustments to, changes in, maintenance of or repairs on its lines, substations, and
11 facilities, and in cases where the continuance of Network Integration Service would endanger
12 persons or property. In the event of any adverse condition(s) or disturbance(s) on the Bonneville
13 system or on any other system(s) directly or indirectly interconnected with the Bonneville
14 system, Bonneville, consistent with Good Utility Practice, also may interrupt Network
15 Integration Service in order to: (i) limit the extent or damage of the adverse condition(s) or
16 disturbance(s); (ii) prevent damage to generating or transmission facilities; or (iii) expedite
17 restoration of service. Bonneville shall give the Transmission Customer as much advance notice
18 as is practicable in the event of such interruption. Any interruption of Network Integration
19 Service will be not unduly discriminatory relative to Bonneville' s use of the Integrated Network
20 Transmission System. The Transmission Customer' s failure to respond to established
21 emergency load shedding and curtailment procedures to relieve emergencies on the Integrated
22 Network Transmission System may be deemed by the Bonneville to be a default under the
23 service agreements that apply this Tariff and Bonneville may terminate service under this Tariff.

10. RATES AND CHARGES

10.1 Designation of Rates

The Transmission Customer shall pay for services provided under this Tariff as provided in rates schedules determined in a formal Bonneville rate hearing pursuant to Section 7(i) of the Northwest Power Act. The rate for the transmission service under this Tariff is identified as the Network Integration Transmission Rate (NT-96) or its successor, and the rate(s) for Ancillary Services are contained in the Ancillary Power Service Rate (APS-96) or its successor. To the extent that the Southern or Eastern Intertie segments are required to move power from a Network Resource or other resource to a Network Load, appropriate intertie rates shall be applied to such intertie use.

1 **10.2 Stranded Costs**

2 Bonneville may seek to recover stranded costs from a Transmission Customer pursuant to
3 this Tariff and pursuant to section 7(i) of the Northwest Power Act.

4 **11. BILLING AND PAYMENT**

5 **11.1 Billing and Payment**

6 Bonneville may render estimated bills for any month. Estimated bills are payment
7 obligations that are subject to all payment provisions, including late payment charges. A final
8 bill will always follow an estimated bill.

9 Bills for Transmission Services shall be rendered monthly by Bonneville on the
10 Customer' s monthly bill. Failure to receive a bill shall not release the Customer from liability
11 for payment. If requested by the Customer, Bonneville will electronically transmit the
12 Customer' s monthly bill to the Customer on the issue date of the bill, provided the Parties have
13 compatible electronic equipment. Bonneville may elect to electronically transmit only that
14 portion of the bill showing the amount owed. If the entire bill is not provided by electronic
15 means, Bonneville will also send the Customer a complete copy of its monthly bill by mail.

16 **(a) Due Date**

17 Payment shall be due by close of business on the 20th day after the date of the bill
18 (Due Date). This requirement also holds for revised bills. If the 20th day is a
19 Saturday, Sunday or Federal holiday, the Due Date shall be the next business day.

20 **(b) Payments of \$50,000 or more**

21 (1) If the Customer' s monthly bill from Bonneville is \$50,000 or more, the

1 Customer must pay by wire transfer using procedures established by
2 Bonneville's Financial Services Group, unless the Customer has obtained the
3 right to pay by mail as provided in section 11.1(b)(2). Wire transfer amounts
4 are due and payable on the Due Date.

5 (2) The Customer may pay its bill by mail even if the amount exceeds \$50,000,
6 provided the following conditions have been met:

7 (a) The Customer gives Bonneville 30 days' notice of its intent to pay by
8 mail;

9 (b) The Customer ensures that Bonneville receives full payment by the
10 above-

11 stated Due Date; and

12 (c) The Customer has not incurred late payment charges while paying its bills
13 by mail.

14 (c) **Payments of Less than \$50,000**

15 If the Customer's monthly bill from Bonneville is less than \$50,000, the customer
16 may pay the bill by mail. Payment for such bills will be accepted as timely if the
17 payment is postmarked by the Due Date. Payments shall be mailed to:

18 Bonneville power Administration
19 PO Box 6040
20 Portland, OR 97228-6040

21 (d) **Computation of Bills**

22 Bills for products and services purchased under this agreement shall be rounded to
23 whole dollar amounts, by eliminating any amount which is less than 50 cents and
24 increasing any amount from 50 cents through 99 cents to the next higher dollar.

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(e) **Estimated Bills**

At its option, Bonneville may elect to render an estimated bill for a month to be followed at a subsequent billing due by a final bill for that month. Such estimated bill shall have the validity of, and be subject to, the same payment provisions as a final bill.

(f) **Late Payment**

Bills not paid in full on or before close of business on the Due Date shall be subject to an interest charge of one-twentieth percent (0.05 percent) applied each day to the unpaid balance. This interest charge shall be assessed on a daily basis until such time as the unpaid amount is paid in full.

Remittances received by mail which are not required to be paid by wire transfer will be accepted without assessment of the charges referred to in the preceding paragraph of this section (11.1(f)) provided the postmark indicates the payment was mailed on or before the Due Date.

(g) **Disputed Billings**

In the event of a billing dispute, the Customer agrees to note the disputed amount and pay its power bill in full by the Due Date. The amount billed is subject to late payment charges until paid in full. If it is determined that the Customer is entitled to a refund of any portion of the disputed amount, then Bonneville will make such refund with interest computed from the date of receipt of the disputed payment. Interest will be computed using the interest rate applicable to 3-month T-Bills as specified in the Federal Reserve Statistical Release G.3 or its successor. The rates used will be the 3-month yield reported on the first day of the month of receipt of

1 the payment, and then on the first day of each subsequent third month thereafter.

2 Bonneville shall not be liable for interest prior to the time the Customer notifies

3 Bonneville of the dispute. Disputed bills are subject to the terms and conditions

4 of section 18 of this Tariff.

5 **(h) Revised Bills**

6 As necessary, Bonneville may render revised bills. The date of a revised bill shall

7 be its issue date.

8 (1) If the amount of the revised bill is more than the amount of the

9 previous bill, the previous bill remains due on its Due Date, and the

10 additional amount is due on the Due Date of the revised bill.

11 (2) If the amount of the revised bill is less than the amount of the previous

12 bill, obligation to pay the previous bill is satisfied by payment of the

13 revised bill on the Due Date of the previous bill.

14 (3) If the revised bill changes the party to whom money is due, the previous

15 bill is canceled and the amount owed the other Party is due on the Due

16 Date of the revised bill.

17 (4) If payment of the previous bill results in an overpayment, a refund is

18 due on the later of (a) the due date of the revised bill, or (b) 20 days

19 from the receipt of the payment for the original bill.

1 **11.2 Customer Default**

2 In the event the Transmission Customer fails, for any reason other than a billing dispute
3 as described below, to make payment to Bonneville on or before the Due Date as described
4 above, and such failure of payment is not corrected within thirty (30) calendar days after
5 Bonneville notifies the Transmission Customer to cure such failure, a default by the
6 Transmission Customer shall be deemed to exist. Upon the occurrence of a default, Bonneville
7 may notify the Transmission Customer that it plans to terminate service in sixty (60) days. The
8 Transmission Customer may use the dispute resolution procedures to contest such termination.
9 In the event of a billing dispute between Bonneville and the Transmission Customer, Bonneville
10 will continue to provide service under the Service Agreement as long as the Transmission
11 Customer: (a) continues to make all payments not in dispute; and (b) pays either in accordance
12 with Bonneville's billing procedures approved by FERC, or pays into an independent escrow
13 account the portion of the invoice in dispute, pending resolution of such dispute. If the
14 Transmission Customer fails to meet these two requirements for continuation of service, then
15 Bonneville will provide notice to the Transmission Customer of its intention to suspend service
16 in sixty (60) days, in accordance with Commission policy.

17 **11.3 Records**

18 Bonneville and the Transmission Customer shall keep such records as may be needed to
19 afford a clear history of all transactions under this Tariff. The originals of all such records shall
20 be retained for a minimum of 2 years plus the current year (or such longer period as may be
21 required by any regulatory commission having jurisdiction) and copies shall be delivered to the
22 other party on request.

1 **12. BOOKING OF COSTS ATTRIBUTABLE TO BONNEVILLE'S USE OF THIS**
2 **TARIFF**

3 Bonneville shall book into separate accounts, as outlined below, the following amounts:

- 4 (i) Impact Study Costs - the cost to perform any System Impact Studies or Facilities
5 Studies that Bonneville undertakes to determine if Bonneville must construct new
6 transmission facilities or upgrades necessary to provide new transmission service
7 to Bonneville under this Tariff; and
8 (ii) Cost Responsibility for Relieving Capacity Constraints - Bonneville's
9 proportionate share of the total redispatch costs to relieve capacity constraints on
10 the system, as provided in Section 9.
11 (iii) Processing Fee - the fee assessed pursuant to section 4.4.

12 **13. STANDARDS OF CONDUCT**

13 In implementing the provisions of this Tariff, the Parties shall comply with the following
14 standards of conduct:

15 **13.1 Standard of Nondiscrimination**

16 In performing its obligations under this Tariff, Bonneville shall apply the Tariff's
17 provisions in a nondiscriminatory manner to all users, including Bonneville's use of this Tariff.

18 **13.2 Communications with Eligible Customers**

Bonneville shall use all reasonable efforts to communicate promptly with all Eligible
Customers to resolve any questions regarding their requests for service and in a
nondiscriminatory manner.

19 **13.3 Standard of Due Diligence**

1 Where Bonneville or the Transmission Customer is required to complete activities or to
2 negotiate agreements as a condition of service under this Tariff, each party shall use due
3 diligence to complete these actions within a reasonable time.

4 **13.4 Dispute Resolution Procedures**

5 If any Transmission Customer has a dispute or complaint that relates to the conduct of
6 Bonneville under this Tariff, the Transmission Customer may use the dispute resolution
7 procedures provided in Section 18.

8 **14. INDEMNIFICATION AND LIABILITY**

9 **14.1 Uncontrollable Forces**

10 Neither Bonneville or the Transmission Customer shall be liable to the other for damages
11 for any act, omission or circumstance occasioned by or in consequence of any act of God, labor
12 disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion,
13 breakage or accident to machinery or equipment, or by any other cause or causes beyond such
14 Party's control, including any curtailment, order, regulation or restriction imposed by
15 governmental military or lawfully established civilian authorities, or by the making of necessary
16 repairs upon the property or equipment of either Party hereto.

17 **14.2 Electric Disturbances**

18 (a) For the purposes of this section an electric disturbance is any sudden, unexpected,
19 changed, or abnormal electric condition occurring in or on an electric system which causes
20 damage.

21 (b) Each Party shall design, construct, operate, maintain, and use its electric system in
22 conformance with accepted electric utility practices:

1 (1) to minimize electric disturbances such as, but not limited to, the abnormal
2 flow of power which may interfere with the electric system of the other party or any electric
3 system connected with such other party' s electric system; and

4 (2) to minimize the effect on its electric system and on its customers of
5 electric disturbances originating on its own or another electric system.

6 (c) If both parties to this contract are parties to the Agreement Limiting Liability
7 Among Western Interconnected Electric Systems, their relationship with respect to system
8 damages shall be governed by that agreement.

9 (d) During such time as a party to this contract is not a party to the Agreement
10 Limiting Liability Among Western Interconnected Systems, its relations with the other party
11 with respect to system damages shall be governed by the following sentence, notwithstanding the
12 fact that the other party may be a party to said Agreement Limiting Liability Among Western
13 Interconnected Systems. A party to this contract shall not be liable to the other party for damage
14 to the other party' s system, whether or not such electric disturbance is the result of negligence by
15 the first party, if the other party has failed to fulfill its obligations under subsection (b)(2) above.

16 (e) If one of the parties to this contract is not a party to the Agreement Limiting
17 Liability Among Western Interconnected Systems, each party to this contract shall hold harmless
18 and indemnify the other party, its officers and employees, from any claims for loss, injury, or
19 damage suffered by those to whom the first party delivers power not for resale, which loss,
20 injury, or damage is caused by an electric disturbance on the other party' s system, whether or not
21 such electric disturbance results from the negligence of such other party, if such first party has
22 failed to fulfill its obligations under subsection (b)(2) above, and such failure contributed to the
23 loss, injury, or damage.

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15. REGULATORY FILINGS

Nothing contained in this Tariff or any Service Agreement shall be construed as affecting in any way the right of Bonneville to establish new rates pursuant to section 7(i) of the Pacific Northwest Electric Power Planning and Conservation Act.

Nothing contained in this Tariff or any associated Service Agreement shall be construed as affecting in any way the ability of any Transmission Customer receiving Network Integration Service under the Tariff to exercise its rights under sections 211, 212 and 213 of the Federal Power Act and pursuant to the Commission's rules and regulations promulgated thereunder.

16. OPERATING ARRANGEMENTS

16.1 Operation Under The System Operations Agreement

A Transmission Customer shall plan, construct, operate, and maintain its facilities in accordance with Good Utility Practice, which shall include, but not be limited to, all applicable NERC and WSCC guidelines, or any generally accepted practices in the region that are consistently adhered to by Bonneville as well as in conformance with the System Operations Agreement.

1 **16.2 System Operations Agreement**

2 The terms and conditions under which the Transmission Customer shall operate its
3 facilities and the technical and operational matters associated with the implementation of this
4 Tariff shall be specified in a separate System Operations Agreement. The System Operations
5 Agreement shall provide for the Parties to: (i) operate and maintain equipment necessary for
6 incorporating the Transmission Customer within the Integrated Network Transmission System
7 (including, but not limited to, remote terminal units, metering, communication equipment, and
8 relaying equipment); (ii) transfer data between control centers (including, but not limited to, heat
9 rates and operational characteristics of Network Resources, generation schedules for units
10 outside the Integrated Network Transmission System, interchange schedules, unit outputs for
11 redispatch required under Section 9, voltage schedules, breaker and switch status, bus voltage,
12 flow of real and reactive power, loss penalty factors, and other real-time data; (iii) design and
13 implement software programs required for data links and constraint dispatching; (iv) exchange
14 data on forecasted loads and resources necessary for planning; and (v) address any other
15 technical and operational considerations required for implementation of this Tariff,
16 including scheduling protocols. A System Operations Agreement is provided in Appendix C.

17 **17. SYSTEM OPERATING COMMITTEE**

18 A System Operating Committee (Committee) shall be established to coordinate operating
19 criteria for the Parties' respective responsibilities under this Tariff including: (i) standards for the
20 design, operation, and maintenance of the facilities necessary to integrate Transmission
21 Customer Electric Systems with the Integrated Network Transmission System (including, but not
22 limited to, remote terminal units, metering, communications equipment, and relaying

1 equipment); (ii) information transfers between control centers (including, but not limited to,
2 operational characteristics of Network Resources, generation schedules for units outside the
3 Integrated Network Transmission System, interchange schedules, unit outputs for dispatch,
4 voltage schedules, loss factors, and other real-time data); (iii) Software programs required for
5 data links and constraint dispatching; (iv) information required for planning; (v) load curtailment
6 procedures in the event of transmission constraints or system emergencies; (vi) least-cost
7 redispatch procedures; and (vii) other technical and operational considerations required for
8 implementation of this Tariff. Each Transmission Customer and Bonneville shall have at least
9 one representative on the Committee. The Committee may establish such subcommittees as it
10 deems necessary to carry out its functions. The Committee shall meet from time to time as need
11 requires, but no less than once each calendar year, unless other arrangements are mutually agreed
12 upon.

13 **18. PROCEDURES TO RESOLVE TRANSMISSION COMPLAINTS**

14 Any complaint arising concerning implementation of this Tariff shall be resolved as
15 follows:

16 (a) Through a dispute resolution process, pursuant to the terms of a Regional
17 Transmission Association governing agreement of which both Parties are
18 members; or

19 (b) If both Parties are not members of the same Regional Transmission
20 Association, through a dispute resolution process agreed to by the Parties, or
21 through a transmission complaint filed with the Commission to the extent the
22 Commission has jurisdiction over such dispute.

1 **19. CREDITWORTHINESS**

2 For the purpose of determining the ability of the Transmission Customer to meet its
3 obligations related to service hereunder, Bonneville may require reasonable credit review
4 procedures which may include, but shall not be limited to, verification that the
5 Transmission Customer is not operating under any State or Federal bankruptcy laws, is
6 not subject to the uncertainty of pending liquidation or regulatory proceedings in State or
7 Federal courts, and no significant collection lawsuits or judgments are outstanding which
8 would seriously reflect upon the Transmission Customer's ability, in Bonneville's
9 determination, to remain solvent. This determination shall be made in accordance with
10 standard commercial practices. In addition, Bonneville may require the Transmission
11 Customer to provide and maintain in effect during the term of the Service Agreement, an
12 unconditional and irrevocable letter of credit as security to meet its responsibilities and
13 obligations under this Tariff or an alternative form of security proposed by the
14 Transmission Customer and acceptable to Bonneville that protects
15 Bonneville against the risk of nonpayment. Any disputes over the terms of such security
16 arrangements shall be subject to the dispute resolution provisions of this Tariff.

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APPENDIX A

**STANDARD FORM OF
SERVICE AGREEMENT**

This Agreement is made and entered into this ____ day of _____, _____, by and between the Bonneville Power Administration (hereinafter referred to as “Bonneville”) and _____ (hereinafter referred to as "the Transmission Customer"). The Transmission Customer and Bonneville are sometimes referred to individually as “Party” and collectively as “Parties”, as the context suggests below.

In consideration of the promises and mutual covenants and agreements herein contained, the Parties do agree as follows:

ARTICLE I

Scope of Service Agreement

1.1 Terms and Conditions - The terms and conditions under which the Network Integration Service is offered and accepted are pursuant to this Agreement and to the Network Integration Service Tariff incorporated as Exhibit A (Tariff). Unless otherwise mutually agreed in writing by the parties, Bonneville may change the terms and conditions of the Tariff upon, and only upon, a determination by the Commission that such change is just and reasonable and not unduly discriminatory or preferential.

1.2 Application - The Application for Network Integration Service requested by the Transmission Customer and accepted by Bonneville for this Service Agreement is hereby incorporated by this reference and made a part of this Service Agreement as Exhibit “B”.

1 **1.3 System Impact/Facilities Study** - Study Agreements for a System Impact Study and/or
2 a Facilities Study, if performed for this Application, are hereby incorporated by this
3 reference and made a part of this Service Agreement as Exhibits “C” and “D”,
4 respectively.

5 **1.4 Statement of Service Specifications** - The Statement of Service Specifications
6 (including Ancillary services) for Network Integration Service under this Service
7 Agreement requested by the Transmission Customer and accepted by Bonneville are
8 hereby incorporated by reference and made a part of this Service Agreement as Exhibit
9 “E”.

10 **1.5 System Operations Agreement** - The System Operations Agreement containing the
11 terms and conditions under which the Transmission Customer shall operate its facilities
12 and the technical specifications associated with Network Integration Service under this
13 Service Agreement is hereby incorporated by this reference and made a part of this
14 Service Agreement as Exhibit “F”.

15 **ARTICLE II**

16 **Term of the Service Agreement**

17 Service under this Agreement shall commence on the later of: (a) _____; or
18 (b) the date on which construction of any Direct Assignment Facilities and/or Network Upgrades
19 is completed. Service under this Agreement shall terminate on _____.

20 **ARTICLE III**

21 **Notices**

22 **3.1 Notices Relating to Provision of Service Agreement** - Any notice, request, demand or
23 statement which may be given to or be made upon either Party by the other party under

1 any of the provisions of this Service Agreement, except those specified in paragraph 3.2
2 below, shall be in writing and shall be considered delivered when either personally
3 delivered to the following or deposited in the mail postage prepaid and properly
4 addressed to the following:

5 If the notice is to the Transmission Customer:

6 Title

7 Transmission Customer Name

8 Address

9 If the notice is to Bonneville:

10 Title

11 Bonneville Power Administration

12 Address

13 **3.2 Notices of an Operating Nature** - Any notice, request or demand pertaining to matters
14 of an operating nature, exclusive of requests for additional or modified transmission
15 service under this Tariff, shall be sufficient if given in writing, by telephone, by
16 facsimile, or orally in person to the person designated in writing by the Party as its
17 representative for such purposes, provided that should the same not be in writing,
18 confirmation thereof shall be made in writing as soon as reasonably practicable
19 thereafter, upon request of the Party being served.

20 **ARTICLE IV**

21 **Miscellaneous**

22 **4.1 Governing Law** - This Service Agreement shall be interpreted, construed and enforced
23 in accordance with federal law.

1 **4.2 Amendments** - This Service Agreement may be amended upon mutual agreement of the
2 Parties, which amendment shall be reduced to writing and executed by both Parties.

3 Bonneville may change rates pursuant to applicable law and procedure. Bonneville may
4 also change system loss factors and other technical and measurable system factors to
5 account for changes in system conditions. The Transmission Customer may use the
6 dispute resolution procedures available under this contract to challenge such non-rate
7 changes.

8 **4.3 Severability** - In the event any of the terms, covenants or conditions of this Service
9 Agreement, or any amendment hereto, or the application of such terms, covenants or
10 conditions shall be held invalid as to any Party or circumstance by the Commission or by
11 any court having jurisdiction, all other terms, covenants and conditions of this Service
12 Agreement or any amendment hereto and their application shall not be affected thereby
13 and shall remain in full force and effect.

14 **4.4 Computation of Time** - On computing any period of time prescribed or allowed by this
15 Service Agreement, the day of the act, event or default from which the designated period
16 of time begins to run shall not be included. The last day of this period so computed shall
17 be included unless it is a Saturday, Sunday or legal holiday, in which event the period
18 shall run until the end of the next business day which is neither a Saturday, Sunday or
19 legal holiday. For purposes of the administration of this Service Agreement, Pacific
20 Time shall be used.

21 **4.5 No Third Party Beneficiaries** - This Service Agreement creates rights and obligations
22 only between the Parties hereto. The Parties hereto expressly do not intend to create any
23 obligation or promise of performance to any other third person or entity nor have the

1 Parties conferred any right or remedy upon any third person or entity other than the
2 Parties hereto, their respective successors and assigns to enforce this Agreement.

3 **4.6 Interconnection with Other Systems** - Nothing contained in this Service Agreement
4 shall restrict or limit either Party from establishing, altering or terminating
5 interconnection points with any entity not a party to this Service Agreement or amending
6 or entering into such agreements.

7 **4.7 Facilities** - The following facilities are designated as Direct Assignment Facilities:

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9
10 Bonneville may disconnect or physically remove Federal equipment and facilities at the
11 Customer's point(s) of delivery and at other locations on the Federal System if such
12 facilities are used exclusively to provide service to the Transmission Customer and if the
13 Customer is not currently using such facilities either for delivery of Federal power or to
14 receive wheeling service from Bonneville.

15 **4.8 Transition Costs for Transfer Agreements** - To the extent the Transmission Customer
16 receives transmission service over facilities of a third party, and such service is provided
17 pursuant to a contract between Bonneville and the third party (Transfer Agreement), the
18 Transmission Customer shall, upon termination of this Service Agreement, reimburse
19 Bonneville for any continuing costs under the Transfer Agreement that would not have
20 been incurred had the Transfer Agreement originally been established at the lower level
21 of service.

22 **4.9 Waivers** - Any waiver at any time by either party of its rights with respect to a default
23 under this Service Agreement, or with respect to any other matter arising in connection

1 with this Service Agreement, shall not be deemed a waiver with respect to any other or
2 subsequent default or matter.

3 **4.10 Assignment** - This Service Agreement shall not be assigned except to facilitate a
4 merger or purchase of the Transmission Customer.

5 **4.11 Service Agreement Governs** - In the event of any irreconcilable difference between the
6 Tariff and this Agreement, the language of this Agreement shall govern.

7 **4.12 Entire Agreement** - This Service Agreement constitutes the entire agreement between
8 the Parties with respect to the subject matter hereof, and there are no other
9 understandings or agreements between the Parties with respect thereof.

10 **IN WITNESS WHEREOF**, the duly authorized representatives of Bonneville and the
11 Transmission Customer have executed this Agreement as of the date first above written.

12 **TRANSMISSION CUSTOMER**

13 **BY:** _____

14 **TITLE:** _____

15 **BONNEVILLE POWER ADMINISTRATION**

16 **BY:** _____

TITLE: _____

SPECIFICATIONS FOR FIRM TRANSMISSION SERVICE

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2 1. Term of Transaction:

3 Start Date: _____

4 Termination Date: _____

5 2. Description of capacity and energy to be transmitted by Bonneville across Bonneville's -
6 Integrated Network Transmission System (including control area in which the transaction
7 originates).

8 _____

9 3. Network Resources

10 (1) Transmission Customer Generation Owned:

11 Resource Capacity Capacity Designated as Control Area
12 Network Resource

13 (2) Transmission Customer Generation Purchased:

14 Source Capacity Control Area

15 (3) Total Network Resources: (1) + (2) =

16 4. Network Load

17 (1) Transmission Customer Network Load

18 Network Load Transmission Voltage Level Control Area Estimated Annual
19 Peak

20 (2) Member System Loads Designated as Network Load

- 1 (4) Phase (Applicable when Bonneville is delivering single phase, not 3-phase
2 power.)
- 3 (5) Transfer Service
- 4 (6) Service over other facilities (Applicable when Bonneville uses the
5 Customer' s own facilities to serve the Customer.)
- 6 (7) Default Methodology for Calculating Hourly Amounts of Customer Generation
7 (Applicable when the existing meters only measure monthly amounts.) In some
8 cases, the resource will be treated as an offset to the Customer' s load. Consumer
9 resources are not subject to this requirement.
- 10 (8) Calculation Methods for Determining How Meter Readings Are to be Added or
11 Subtracted to Calculate the Billing Amounts.
- 12 (9) Multiplier to be Used to Calculate Demand from Average Energy Deliveries in
13 PODs Without -Demand Recording Devices.
- 14
- 15 7. Loss Adjustment Between POD and Point of Metering: Bonneville will adjust the
16 Customer' s energy quantities as measured at the Customer' s metering point for losses
17 between that metering point and the Customer' s POD.
- 18 8. Designation of Party subject to reciprocal service obligation : _____
19 _____

1 9. Name(s) of any Intervening Systems providing transmission service: _____

2 _____

3 10. Other provisions specific to this Agreement: _____

4 _____

5 11. Declared Customer-Served Load (The monthly amount in megawatts of the Customer's

6 Network Load that the Customer elects not to serve under the Network Integration

7 Service Agreement. _____ MW

APPENDIX B

**METHODOLOGY FOR COMPLETING A
SYSTEM IMPACT STUDY**

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4 Bonneville will complete a System Impact Study to assess the service requested consistent with
5 the criteria outlined in Bonneville's annual FERC Form 715 submittal and consistent with Good
6 Utility Practice and the standards, criteria and requirements of NERC, WSCC, NWPP,
7 Bonneville and any applicable RTA. Computer models (powerflow, transient stability and short
8 circuit) of the system will be used to simulate the behavior of the system under normal and
9 outage conditions. The studies will consider different plausible scenarios and operating
10 conditions and often may consider more than one season. System problems to be identified
11 include equipment overloads, voltage concerns and stability issues.

1 **APPENDIX C**

2 **STANDARD FORM OF**
3 **SYSTEM OPERATIONS AGREEMENT**

4 _____ This System Operations Agreement (“Agreement”), is made and entered into this ____
5 day of _____, _____, by and between __ (Transmission Customer) _____ (hereinafter
6 referred to as “the Transmission Customer”) and the Bonneville Power Administration
7 (hereinafter referred to as “Bonneville”). The Transmission Customer and Bonneville
8 hereinafter are sometimes referred to individually as “Party” and collectively as “Parties”, as the
9 context suggests below.

10 In consideration of the promises and mutual covenants and agreements herein contained,
11 the Parties do agree as follows:

12 **1. Purpose of Agreement**

13 The purpose of this Agreement is to identify contractual requirements related to service
14 over Bonneville’ s transmission system. This Agreement requires the Parties to:

- 15 (a) recognize that (i) Bonneville’ s transmission system is, and will be, directly or
16 indirectly interconnected with transmission systems owned or operated by others;
17 (ii) the flow of power and energy between such systems shall be controlled by the
18 physical and electrical characteristics of the facilities involved and the manner in
19 which they are operated; and (iii) part of the power and energy being delivered
20 under this Agreement may flow through such other systems rather than through the
21 facilities of Bonneville. The Parties shall, from time to time as necessary, determine

- 1 methods and take reasonably appropriate action to assure maximum delivery of
2 power and energy at the points of interconnection and delivery and at such
3 additional or alternate points of receipt and delivery as may be established by the
4 Parties;
- 5 (b) operate and maintain equipment necessary for incorporating the Transmission
6 Customer within Bonneville's transmission system (including,
7 but not limited to, remote terminal units, metering, communications equipment,
8 telemetering equipment and relaying equipment);
- 9 (c) transfer data (including, but not limited to, instantaneous Spinning and Non-
10 Spinning Operating Reserves, heat rates, fuel costs, and operational
11 characteristics of Network Resources, generation schedules for Network Resources,
12 interchange schedules, unit outputs for redispatch, voltage schedules, flows of real
13 and
14 reactive power, loss factors, switch status, breaker status, MW/MVAR flow on
15 lines, bus voltages, transformer taps and other SCADA and real time data) between
16 their respective control centers;
- 17 (d) use software programs required for data links and constraint dispatching;
- 18 (e) exchange data on forecasted loads and resources necessary for planning and
19 operation; and
- 20 (f) address any other technical and operational considerations required for
21 implementation of the Tariff, including scheduling protocols.

22 **2. Term**

23 **3. Administration of the Agreement**

1 Bonneville and the Transmission Customers agree that the provisions of this Agreement
2 and the Network Integration and Point-to-Point Service Tariffs govern Bonneville's
3 provision of Network Integration and Point-to-Point Service to the Transmission
4 Customer.

5 **4. Notice**

6 Any notice or request made to or by either Party regarding this Agreement shall be made
7 to the representative of the other Party as indicated in the Network Integration and Point-
8 to-Point Service Agreement.

9 **5. Definitions**

10 Unless otherwise specified herein, capitalized terms shall refer to terms defined in the
11 applicable Tariff or the Wholesale Power and Transmission Rate Schedules.

12 (a) "Ancillary Services" - Those services necessary to support the transmission of power
13 from resources to loads while maintaining reliable operation of Bonneville's
14 transmission system in accordance with Good Utility Practice.

15 (b) "Eccentric Load" - means an eccentric load defined as any specific cyclic customer
16 or consumer load with the ability to change periodically more than 50 MW in level
17 at a rate of greater than 50 MW per minute, regardless of the duration of this change.

18 (c) "Effective Control Action" - means an action which when taken results in a specific
19 mitigating response at a location or locations in the power system related to the
20 disturbances of concern, thereby providing acceptable power system performance.

21 (d) "Hourly Data Reported Hourly (HDRH)" - means hourly kWh and KvArh data
22 provided hourly to Bonneville at the end of each hour. HDRH is taken from sources
23 such as the interchange KWH system.

- 1 (e) “Hourly Data Reported Monthly (HDRM)” - means hourly kWh and kVArh data
2 provided at least monthly to Bonneville. HDRM is taken from sources such as the
3 Revenue Metering System.
- 4 (f) “Most Severe Single Contingency” (MSSC)- means that single contingency which
5 results in the most adverse system performance under any operating condition or
6 anticipated mode of operation.
- 7 (g) “Non-Spinning Operating Reserve- means that portion of the Operating Reserve that
8 does not meet the definition of Spinning Reserve.
- 9 (h) “Operational Constraints - means limitations on the ability of the transmission
10 system to operate due to any system emergency, loading, condition, or maintenance
11 outage on Bonneville facilities, or on facilities of an interconnected utility, that make
12 it prudent to reduce transmission system loadings, whether or not all facilities are in
13 service.
- 14 (i) “Operating Reserve” - means the unloaded generating capacity, interruptible load, or
15 other on-demand rights that the Transmission Customer is able to access within ten
16 (10) minutes of a power system disturbance and that are capable of being used to
17 serve load on a sustained basis for up to one (1) hour. Operating Reserves includes
18 both Spinning Reserve and Non-Spinning Operating Reserves.
- 19 (j) “Remedial Action Schemes” - means sets of fast automatic control actions employed
20 to ensure acceptable power system performance following electrical disturbances as
21 determined by Bonneville power flows and/or stability studies. This may include
22 generator dropping and load tripping.
- 23 (k) “Revenue Metering System (RMS)” means a data collection system that

1 electronically measures hourly demand and energy quantities for both kilowatts and
2 kilovars. Such data is used by Bonneville on a HDRM basis.

3 (l) “Spinning Reserve” - means the unloaded generating capacity of a system's firm
4 resources, which is the portion of Operating Reserve that is synchronized to the
5 power system and provides additional energy as required through being immediately
6 responsive to system frequency.

7 (m) “Telemetry (telemetering)” - means a data collection system that provides
8 Bonneville with kW load information on load, generation, power flow, on a
9 continuous, virtually instantaneous basis.

10 (n) “Transfer Agreement” - a contract between Bonneville and the Transferor providing
11 for service to the Bonneville customer.

12 (o) “Transfer Customer” - means a Bonneville customer who receives its Bonneville
13 power either directly or indirectly from a Transferor. A “Transferor” is an entity that
14 has electrical facilities over which Bonneville’s power must be transmitted in order
15 to serve Bonneville’s customers.

16 (p) “Transmission Customer Resource” - means any Transmission Customer-owned
17 resource, regardless of resource location; and any third party (consumer or
18 independent power producer) resource located in the transmission Customer’s
19 service area.

20 **6. Facility Requirements**

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(a) Ownership

- (1) Except as otherwise expressly provided, equipment or salvageable facilities owned by one party and installed on the property of the other will remain the property of the owner.
- (2) Each party will identify all movable equipment and other salvageable facilities which it installed on the other's property by permanently affixing suitable markers plainly identifying the owner. Within a reasonable time after such installation, and again after any subsequent modification of such installation, representatives of the Parties will jointly prepare an itemized list of said movable equipment and salvageable facilities.
- (3) Each Party agrees to be responsible for the cost of compliance with the requirements of all applicable Federal, State, and local environmental laws for its own facilities, even when those facilities are located on the property of the other.

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(b) Safety Design

For safety reasons, Bonneville requires isolation (clearance) of equipment during maintenance, modification, and testing. Facility interconnections between Bonneville and the Transmission Customer are to be designed and constructed to allow the clearing of equipment using isolating devices. Such devices must produce a visible air gap between the energized facilities and the equipment to be worked on.

1 Operating procedures associated with this interconnection are to be in compliance
2 with the more stringent of: Bonneville's Accident Prevention Manual or the
3 Transmission Customer's safety manual.

4 (c) Access to Facilities

5 (1) Whenever one Party has facilities or equipment located on, or planned to be
6 located on, the other's property, the property owner will give the facility or
7 equipment owner permission to access such property at reasonable times for
8 any reasonable purpose related to such facilities or equipment, including
9 meter reading, inspection and/or removal. Only those electric installations
10 used to deliver power that Bonneville sells or wheels to the Transmission
11 Customer or to measure power integrated by the Transmission Customer
12 into Bonneville's system will be subject to inspection. The property owner
13 will also provide accurate and up-to-date information on those facilities and
14 equipment owned by the property owner, to the extent needed by the other
15 party to accomplish its purpose.

16 (2) The inspecting party will be liable for any injury, loss, damage, or accident
17 resulting from their inspection except as otherwise provided by
18 the terms of this Agreement.

19 **7. Resource Requirements**

20 (a) **Operating Reserves**

21 (1) The Transmission Customer shall meet its Spinning and Non-Spinning

1 Operating Reserve obligations by either: (i) purchasing Spinning and
2 Non-Spinning Operating Reserves from Bonneville through the
3 appropriate Ancillary Services; or (ii) meeting or arranging to have a third
4 party meet all or part of its Spinning and Non-Spinning Operating
5 Reserve requirement. A Transmission Customer that meets its Spinning
6 and/or Non-Spinning Operating Reserve requirement by alternative (ii)
7 above shall also meet the requirements of Section 8(c) below. The
8 Operating Reserve requirement is as specified by the WSCC and NWPP
9 and implemented by Bonneville. Inasmuch as Bonneville is obligated to
10 meet the WSCC's and NWPP' s requirements, as they may be modified
11 from time to time, the Transmission Customer recognizes and agrees that
12 its Spinning and Non-Spinning Operating Reserve requirement may
13 change to reflect WSCC and NWPP modifications.

- 14 (2) The Transmission Customer' s Operating Reserve requirement shall
15 be either (i) as specified by the NWPP Operating Reserve Sharing
16 Program or (ii) as specified by the reliability criteria of the WSCC. The
17 Transmission Customer shall have additional Non-Spinning Operating
18 Reserve equal to the Customer's purchases of interruptible energy less its
19 sales of interruptible energy to any third parties, plus an additional amount
20 of operating reserve equal to the Transmission Customer's on-demand
21 obligations during the hour of delivery less its on-demand rights.
- 22 (3) The Transmission Customer shall restore Operating Reserve to the
23 required level consistent with applicable regional criteria.

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- (4) In order to facilitate the use of Operating Reserve, the Transmission Customer shall reserve unloaded firm transmission capacity at least equal to that Operating Reserve amount. Such transmission may be loaded with interruptible energy so that, upon interruption of the energy, transmission service is available to replace such energy from the Operating Reserve.

- (5) To achieve efficiency for the entire Control Area and avoid providing redundant Operating Reserve, Bonneville pools its Operating Reserve with Transmission Customers in its Control Area and all other NWPP Members through the NWPP Operating Reserve Sharing Program. Through this contract, Bonneville has given the Transmission Customer the option of being included in this program through the Bonneville Control Area requirement. A Transmission Customer electing to participate in the NWPP Operating Reserve Sharing Program through the Bonneville Control Area shall either pay Bonneville for meeting the specified Spinning and Non-Spinning Operating Reserve obligations for their resources, or shall preschedule with Bonneville their expected generation and arrange for meeting the associated Spinning and Non-Spinning Operating Reserve obligation. Transmission Customers electing not to participate shall make available to Bonneville Operating Reserves equivalent to one hundred (100) percent of its MSSC as required by NERC. To the greatest extent technically possible, Bonneville will use the

1 Transmission Customer's Operating Reserves to recover from the
2 Transmission Customer's outages.

3 **(b) Remedial Actions Schemes**

4 (1) The Transmission Customer may be required to provide or assure at its cost
5 the provision of its prorata share of Remedial Action Schemes (RAS)
6 required to support the transmission capacity of the transmission path such
7 Transmission Customer uses.

8 (2) If the Transmission Customer is required to provide RAS, then Bonneville
9 and the Transmission Customer shall jointly plan and coordinate the
10 implementation of the RAS. No Party shall unduly withhold consent
11 regarding the implementation of the RAS. The Transmission Customer may
12 implement the required Remedial Action Schemes where it chooses on its
13 system as long as the required level of Effective Control Action is obtained.
14 The level of reliability of the RAS design on the Transmission Customer's
15 system shall be at least equal to the level of reliability employed in the
16 design of the overall RAS Scheme.

17 (i) The Transmission Customer's contribution to the total operational
18 responsibility for this RAS shall be the ratio of the Transmission
19 Customer's usage of Bonneville's share of the path to the total
20 rating of Bonneville's share of the transmission path.

21 (ii) Bonneville shall provide the appropriate control signal or signals to
22 the Transmission Customer.

1 (iii) The Transmission Customer shall provide the necessary
2 equipment to receive and transmit the control signal or signals to
3 and from the Transmission Customer' s transmission, generation,
4 and/or control center facilities to arm and initiate the appropriate
5 Effective Control Action or Actions determined by Bonneville.

6 **(c) Operation of Resources**

7 The Transmission Customer shall operate its generating resources in a manner
8 consistent with Good Utility Practice and the standards, criteria and requirements
9 of NERC, WSCC, NWPP, Bonneville and any applicable Regional Transmission
10 Association (RTA). The Transmission Customer shall pay the cost of necessary
11 communications installations, modification of Bonneville' s computer hardware
12 and software, and all other costs incurred by Bonneville in supporting the
13 operation of the Transmission Customer' s resource in Bonneville' s Control Area.
14 These costs shall include, but not be limited to, accommodating the Transmission
15 Customer's decisions to either change Control Areas or not supply its Spinning or
16 Non-Spinning Operating Reserve obligation by purchasing from Bonneville.
17 Any resources used by the Transmission Customer to meet its Spinning and Non-
18 Spinning Operating Reserve requirements, whether the Transmission Customer's
19 Network Resources or a third party's generating resources, shall meet the same
20 WSCC, NWPP and other applicable requirements, practices and procedures as
21 Bonneville' s generating resources providing these same services including, but
22 not limited to automatic generation control (AGC) capability, reserve availability,
23 ramp rate, governor response, random testing, and a monthly start-up test.

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(d) **Redispatch To Manage Transmission Constraints**

- (1) If Bonneville determines that the redispatch of Network Resources (including reductions in off-system purchases) to relieve an existing or potential transmission system constraint is the most effective way to ensure the reliable operation of the transmission system, Bonneville will redispatch its and the Transmission Customer's Network Resources on a least-cost basis consistent with Good Utility Practice, without regard to the ownership of such resources. Bonneville will apprise the Transmission Customer of its redispatch practices and procedures, as they may be modified from time to time.

- (2) The Transmission Customer will submit verifiable incremental and decremental cost data for its Network Resources, which estimates the cost to the Transmission Customer of changing the generation output of each of its Network Resources, to Bonneville by data link when submitting its preschedules. These costs will be used, along with similar data for Bonneville's resources, as the basis for least-cost redispatch for the next day's operations (or the next days' operations if the preschedule is submitted on a Friday or the day before a holiday). Bonneville's grid operation staff will keep these data confidential, including from Bonneville's marketing staff. If the Transmission Customer experiences changes to its costs during the following day, the Transmission Customer must submit those changes to Bonneville's control center. Bonneville will implement least-cost redispatch consistent with its existing contractual obligations and its current practices

1 and procedures for its own resources. The Transmission Customer is
2 obligated to respond immediately to requests for redispatch from
3 Bonneville' s control center.

4 (3) The Transmission Customer may audit particular redispatch events, at its own
5 expense, during normal business hours following reasonable notice to
6 Bonneville. Either the Transmission Customer or Bonneville may request an
7 audit of the other Party's cost data by an independent agent at the requester's
8 cost.

1 **8. Interconnection Principles and Requirements**

2 **(a) General Interconnection Principles**

3 (1) Each Party shall at all times cooperate with other interconnected systems
4 in establishing arrangements or mitigation measures to minimize
5 operational impacts on each other's systems.

6 (2) Each Party recognizes that a Party's proposed new interconnection or
7 modification of an existing interconnection between that Party's system
8 and the system of a third party, may cause adverse anticipated effects on
9 the system of the other Party. The Party making such interconnection or
10 modification shall minimize, or otherwise compensate for, adverse
11 operational effects to the other Party's system.

12 **(b) Conditions of Service**

13 (1) The Parties recognize that operation and technical problems may arise in the
14 control of the frequency and in the flow of real and reactive power over the
15 interconnected transmission systems. The Parties may adopt operating rules and
16 procedures as necessary to assure that, as completely as practical, the delivery
17 and receipt of real and reactive power and energy hereunder is accomplished in
18 a manner that causes the least interference with such interconnected systems. A
19 Transmission Customer interconnecting with Bonneville's transmission system
20 is obligated to follow the same practices and procedures for interconnection and
21 operation that Bonneville uses for its own load and resources.

22 (2) Where the Transmission Customer purchases Ancillary Services from third

1 parties, the Transmission Customer shall have the responsibility to secure
2 contractual arrangements with such third parties that are consistent with the
3 Tariff, this Agreement, and any applicable rules and procedures developed by
4 the Parties.

5 **(c) Interconnection Requirements**

6 The Transmission Customer shall: (i) provide all Ancillary Services itself,
7 including those necessary to operate as a Control Area consistent with Good Utility
8 Practice and under applicable guidelines of NERC, WSCC, NWPP, Bonneville and
9 of any applicable RTA; (ii) satisfy its Control Area requirements, including all
10 Ancillary Services, by contracting with Bonneville; or (iii) satisfy its Control Area
11 requirements, including all Ancillary Services, by contracting with a another entity
12 which can satisfy those requirements in a manner that is consistent with Good Utility
13 Practice and the standards, criteria and requirements of NERC, WSCC and NWPP,
14 Bonneville and any applicable RTA. The Transmission Customer shall plan,
15 construct, operate and maintain its facilities and system in accordance with Good
16 Utility Practice, which shall include, but not be limited to, all applicable guidelines
17 of NERC, WSCC and NWPP, Bonneville and any applicable RTA as they may be
18 modified from time to time, and any generally accepted practices in the region that
19 are consistently adhered to by Bonneville.

20 **(d) Generation Integration:**

21 (1) Resources connected directly to Bonneville's system are subject to

1 compliance with the generation integration requirements consistent with Good
2 Utility Practice, and all applicable standards of NERC, WSCC, NWPP,
3 Bonneville and any applicable RTA, as they may be modified from time to time,
4 and any generally accepted practices in the region that are consistently adhered
5 to by Bonneville. All resources integrated into a Transmission Customer' s
6 system which, by virtue of their point of connection, are capable of energizing
7 Bonneville facilities must comply with the safety-related requirements of the
8 above standards, including those for relay protection, insulation coordination,
9 switchgear and safety. This requirement would typically apply to generators
10 that are integrated into a system that is connected radially from a tapped
11 Bonneville transmission line or Bonneville substation. Other resources
12 integrated into a Transmission Customer' s network are subject only to the
13 provision that all points of interconnection between Bonneville and the
14 Transmission Customer be operated and maintained in a manner consistent with
15 Good Utility Practice.

- 16 (2) The Transmission Customer agrees to notify Bonneville a minimum of 18
17 months before energization of the resource if it is expected to impact the
18 Bonneville transmission system.

19 **9. Power Quality**

20 **(a) Character of Service**

21 Unless otherwise provided in this Agreement, Bonneville will make electric
22 power available to the Transmission Customer in the form of three-phase
23 alternating current, at a nominal frequency of 60 hertz.

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(b) Voltage Levels

(1) Voltage Levels on the Integrated Network Transmission System

Bonneville has the right to operate its transmission system as provided below and cannot accept any restriction of that right.

(i) 500 Kilovolt System

Bonneville will normally operate its 500 kV transmission system in a range from the nominal voltage to 10 percent above the nominal voltage (500kV to 550 kV).

(ii) 115 to 345 Kilovolt System

Bonneville usually operates its 115 to 345 kV transmission system within +/-5 percent of the nominal voltage.

Bonneville may allow some of its transmission lines or facilities to operate above or below the normal voltage limits where no substantive damage will occur from this operation.

(2) Voltage Levels at Points of Delivery

When the nominal voltage at the Transmission Customer' s POD is 115 kV or more, Bonneville will deliver power to the Transmission Customer at the operating voltage of the transmission system. If the nominal voltage at the Transmission Customer' s POD is below 115 kV, the delivery voltage may differ from the operating voltage of the transmission system as a result of the "turns ratio" and impedance of the transformer providing the delivery service.

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(3) Voltage Schedules

Voltage schedules are necessary for the efficient and reliable transmission of electrical power. Bonneville will establish a voltage schedule for each critical or key substation, as determined by Bonneville. Depending on the hourly operating requirements at each substation and at each point of generation interconnection, Bonneville will issue a target voltage (setpoint) for the voltage schedule. At any time, Bonneville may reset the voltage schedule. The Transmission Customer agrees to take all appropriate actions to help Bonneville maintain the established voltage schedule.

(4) Reactive Power

Each party agrees to design, construct, operate, maintain, and use its electric facilities in accordance with Good Utility Practice to minimize the reactive power requirements placed on the other party.

At times during abnormal system conditions, Bonneville may need the Transmission Customer to supply additional reactive power from its reactive sources (relative to normal requirements) to maintain reasonable voltage levels. The Transmission Customer agrees to use its best efforts to comply with Bonneville's request.

(5) Balancing Phase Demands

The current on any one phase may not deviate by more than 5 percent from the average of the currents on all three phases, unless otherwise agreed by the Parties.

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(6) Voltage and Current Harmonic Control

Each Party agrees to design, construct, operate, maintain, and use its electric facilities in accordance with Good Utility Practice to reduce, to acceptable levels, the harmonic currents and voltages which pass into the other party's facilities. To that end, the parties will be guided by the recommended practices and requirements for harmonic control specified in The Institute of Electrical and Electronics Engineers, Inc., (IEEE) Electrical Power System Standard 519-1992, or its successor. The parties will accomplish harmonic reductions using equipment which is specifically designed, and permanently operated and maintained, as an integral part of the facilities of the party which owns the system on which the harmonics are generated.

(7) Voltage Fluctuation and Flicker

Voltage fluctuation and flicker is normally detectable through visible variations in light intensity. However, flicker may be present even when no light variations are detectable. Since flicker is disruptive to lighting and can damage or disrupt operation of electronic equipment, it must be controlled. IEEE Recommended Practices and Requirements for Harmonic Control in Electric Power Systems (IEEE Standard 519) provides definitions and limits on acceptable levels of voltage flicker, as set by IEEE 519. Both Parties agree to control voltage flicker on their respective systems as required by the IEEE standard.

1 **10. Deliveries by Transfer**

2 (a) If Bonneville delivers power to the Transmission Customer over third party
3 facilities through a Transferor, Bonneville will use its best efforts to ensure that the
4 Transferor provides such service in a manner that is comparable in quality to direct
5 Federal service.

6 (b) Although a Transmission Customer may receive its Bonneville power service
7 through a Transferor, the following contractual requirements relating to the
8 installation, operation, and maintenance of facilities will apply as if the service were
9 provided directly by Bonneville: (i) requirements to reduce the Transmission
10 Customer' s reactive power requirements to acceptable levels; (ii) requirements to
11 reduce harmonics currents and voltages caused by the Transmission Customer' s
12 system or its consumer' s loads to acceptable levels; and (iii) requirements to reduce
13 voltage flicker caused by the Transmission Customer' s system on consumer' s loads
14 to acceptable levels.

15 **11. Service Interruptions**

16 **(a) Maintenance Requirements**

17 (1) The Parties shall establish procedures to coordinate the maintenance
18 schedules of their generating resources and transmission and substation
19 facilities, to ensure sufficient transmission resources are available to
20 maintain system reliability and reliability of service. The Parties shall use
21 the standards of the NWPP as the standard for scheduling maintenance.

22 (2) The Transmission Customer shall obtain: (1) concurrence

1 from Bonneville, at least 72 hours before beginning any scheduled
2 maintenance of its facilities that could impact the Bonneville transmission
3 system; and (2) clearance from Bonneville when the Transmission
4 Customer is ready to begin maintenance on a Network Resource,
5 transmission line, or substation (operated at 60 kilovolts and above) that
6 could impact the Bonneville transmission system. The Transmission
7 Customer shall immediately notify Bonneville at the time when any
8 unscheduled or forced outages occur and again when such unscheduled or
9 forced outages end. The Transmission Customer shall notify and
10 coordinate with Bonneville prior to reconnecting the Network Resource,
11 transmission line, or substation.

12 (3) Maintenance schedules will be posted on an electronic bulletin board.
13 consistent with RIN practices.

14 (b) **Outages**

15 The Parties or a Transferor may temporarily interrupt or reduce deliveries of
16 electric power if any such party determines that such interruption or reduction is
17 necessary or desirable in case of system emergencies, operational constraints,
18 Uncontrollable Forces, or to install equipment in, make repairs to, make
19 replacements within, conduct investigations and inspections of, or perform other
20 maintenance work on the Parties' facilities or the Transferor's facilities. To the
21 extent reasonable or appropriate, the Parties will use temporary facilities or
22 equipment to minimize the effect of any such interruption or outage.

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(c) Emergency or Breakdown Relief

(1) If a Party requires additional power to meet its needs during a system emergency, such affected Party may ask the other to supply the needed power. Upon request, the other Party will supply as much of the requested power as possible, consistent with its reserve requirements and obligations to its other customers. The supplier's determination of the amount of power available for this purpose is final and conclusive.

(2) If either party supplies power to the other under subsection (a) above and requests replacement of that power, the other will make an equivalent amount of power available to the supplier and at such times as may be agreed upon by the respective parties' dispatchers. If the party supplying the power does not request replacement of that power, the other will pay for the power at the price established at the time of delivery.

(d) Voltage Imbalance

When the Transmission Customer detects, at its points of delivery or points of interconnection with Bonneville, any voltage imbalance that could cause equipment damage, the Transmission Customer is responsible for taking appropriate action to prevent or minimize such damage and loss of service and reporting the condition to Bonneville's system operator or dispatcher.

12. Emergency Planning and Operation

(a) Bonneville shall be responsible for planning, coordination, and implementing emergency operation schemes. Examples of such schemes include but are not limited

1 to, the NWPP underfrequency load shedding program, the undervoltage load
2 shedding program, and the system restoration plan. There may be additional schemes
3 that meet the NWPP, WSCC, and RTG reliability planning objectives. If Bonneville
4 identifies reliability objectives beyond the NWPP, WSCC and RTG objectives, they
5 shall be communicated to the Transmission Customer(s). The need to identify
6 additional objectives may involve, but not necessarily be limited to, anticipated
7 reduction in system restoration time following blackout or brownout emergencies.

8 (b) The Transmission Customer shall: (1) participate in the development of load
9 shedding programs for system security (2) install and maintain the required load
10 shedding relays, including but not necessarily limited to underfrequency and
11 undervoltage relays, and (3) participate in system restoration planning. Disputes
12 with any of the requirements specified by Bonneville shall be resolved through the
13 applicable dispute resolution process described in the applicable Tariff.

14 **13. Information and Metering Requirements**

15 **Metering Requirements at Transmission Customer Facilities:**

16 Basic metering requirements are identified below. Particular products and services that
17 the Transmission Customer chooses may require additional metering. Any such
18 additional metering requirement will be identified by Bonneville before the Transmission
19 Customer makes its product selection.

20 **(a) Points of Interconnection for Generation**

21 The following metering requirements apply to points of generation
22 interconnection onto Bonneville's system for the Transmission Customer's

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Resources. Resources will be evaluated individually for the purpose of determining metering requirements. If Bonneville demonstrates a planning, operational, or billing need for meters other than those specified below, Bonneville may install such meters at its own expense.

Notwithstanding the provisions specified in sections (i) through (vi), below, any Transmission Customer Resource of less than 15 megawatts (MW) that is located outside the Transmission Customer's own service area must be metered on an HDRM basis unless all three affected parties (Bonneville, the resource owner, and the utility within whose service area the resource resides) agree to a negotiated average hourly output.

For purposes of the Bonneville determinations detailed below, "resource rating" is equal to the sum of all resource components integrated at a single site.

(i) Resources Less Than 1 MW (Existing and New)

If the Transmission Customer's resource has a peak capability of less than 1 MW, no metering is generally required. However, Bonneville reserves the right to install metering at its own expense if it is needed. Bonneville will either treat the resource as "negative load" or will negotiate an estimated hourly average output with the Transmission Customer. The Service Agreement will specify how such hourly estimates will be recorded.

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(ii) Existing Resources From 1 MW to 3 MW

If the Transmission Customer's resource, existing on the Effective Date, has a peak capability of at least 1 MW but less than 3 MW, Bonneville will determine whether to meter the resource output on an HDRM basis or designate an output that is equal to the appropriate generation capacity factor (peak capability of the resource multiplied by a default capacity factor of 60 percent for hydro and 90 percent for all other resources). Bonneville's determination and the resource data (name and size of the resource) will be recorded in the Service Agreement. Bonneville will pay for any required meters.

(iii) Existing Resources From 3 MW to 15 MW

If the Transmission Customer's resource has a peak capability of at least 3 MW but less than 15 MW, Bonneville will determine whether to:

- (a) use an appropriate generation capacity factor (peak capability of the resource multiplied by a default capacity factor of 60 percent for hydro and 90 percent for all other resources); or
- (b) install telemetering, HDRH, and/or hourly metering at its own expense to meter the output of any Transmission Customer resource existing on the Effective Date. Bonneville's determination will be recorded in the Service Agreement.

(iv) Existing Resources Over 15 MW

To meter the output of any Transmission Customer resource that is existing on the Effective Date and is 15 MW or more in size, Bonneville

- 1 may, at its own expense, install telemetering (analog and HDRH) and
- 2 HDRM metering.

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(v) **New Resources or Upgraded Resources from 1 MW to 3 MW**

If, after the Effective Date, the Transmission Customer acquires a resource of 1 MW to 3 MW in size or upgrades an existing resource such that its peak capability is now at least 1 MW, but less than 3 MW, the Transmission Customer must meter such resource hourly at its own expense to provide HDRM to Bonneville for billing purposes. The Transmission Customer and Bonneville agree to negotiate the estimated average hourly output to be used for operational purposes.

(vi) **New Resources or Upgraded Resources 3 MW or More**

If, after the Effective Date, the Transmission Customer (or one of its consumers) acquires a resource that has a peak capability of 3 MW or more, the Transmission Customer will meter such resource at its own expense using telemetering and HDRH metering unless another arrangement is approved by Bonneville. The reactive power (kvarh) metering must record both lagging and leading reactive power quantities.

(b) **Points of Automatic Generation Control (AGC) Interchange**

The following metering is required for each AGC Interchange point (a point on a Control Area boundary between two Control Areas):

- (i) telemetering of the kW at such point; and
- (ii) metering with HDRH capable of providing summaries, within three (3) minutes of the end of each clock hour, of the kWh and kvarh (lagging and leading) exchanged during the previous hour.

(c) **Other Electrical Connections**

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(1) Unless Bonneville grants an exception, the Transmission Customer must have all electrical interconnections with Bonneville other than AGC interchange points and points of generation integration metered for HDRM for both kWh and kVArh (lagging and leading) quantities.

(i) Hourly metering will be installed by Bonneville unless Bonneville agrees to other arrangements. A mutually acceptable schedule for such installation will be negotiated between Bonneville and the Transmission Customer, subject to availability of Bonneville resources. If the Transmission Customer wants to receive expedited metering installation, the Transmission Customer will bear the extra cost of resources necessary to provide that expedited installation.

(ii) If Bonneville agrees to other electronic metering arrangements as provided in (1), above, Bonneville will have no maintenance responsibility for the metering unless paid maintenance arrangements are made.

(2) If, at a given point, there is no metering in place that reports data to Bonneville on an electronic basis every month, metering data collected by the Transmission Customer must be delivered to Bonneville's billing operations group within 24 hours of the end of the billing period. Bonneville reserves the right to require other metering to be installed at the Transmission Customer's expense if

1 the Transmission Customer's data is late more than twice in any 12-
2 month period.

3 **(d) Eccentric Loads**

4 The Transmission Customer will separately meter each of its Eccentric Loads
5 using telemetering equipment or the equivalent. Transmission Customers buying
6 load regulation from Bonneville must notify Bonneville if they have a consumer
7 whose load qualifies as an eccentric load.

8 **(e) Metering Standards**

9 (1) All metering installations are to be designed to meet American
10 Nation Standards Institute (ANSI) Standard C12 (American
11 National Standard Code for Electricity).

12 (2) All meters at new installations where the interconnections are
13 "normally closed" must be capable of providing hourly data
14 electronically (either HDRM or HDRH, as required) unless
15 Bonneville otherwise agrees.

16 (3) Bonneville will determine whether hourly data or meter slips are
17 required for those interconnections that are normally operated in
18 the "normally open" mode.

19 (4) All meters providing data electronically to Bonneville must be
20 compatible with Bonneville's electronic metering systems.

21 (5) As of the Effective Date, Bonneville principally uses a
22 telemetering system, a kWh system, and a Revenue Metering

1 System (RMS) for metering. There may be acceptable alternatives
2 to each of these specific systems. The Transmission Customer
3 agrees to consult with Bonneville to ensure compatibility of any
4 Transmission Customer meter with Bonneville's then-current
5 metering system.

6 (6) Meters at loads of 1 MW or more in peak demand must be in the
7 0.2 percent accuracy class or better. Meters at loads of less than
8 1 MW peak demand must be in the 0.5 percent accuracy class or
9 better. Instrument transformers must have a metering accuracy of
10 0.3 percent when current, voltage, and metering transformer
11 loadings (burdens) are all within rated limits.

12 (7) The Transmission Customer agrees to coordinate with Bonneville
13 to determine Bonneville's information and communication needs
14 when designing future meter installations.

15 (8) Bonneville-installed metering is to be used exclusively for
16 Bonneville purposes unless otherwise agreed.

17 (9) Until the required metering capability is installed (assuming it is
18 not installed by the Effective Date), the parties will calculate
19 hourly quantities using the load factor at the metering point to
20 determine the Heavy Load Hour / Light Load Hour split for energy
21 delivered to that point. For PODs with no meter for recording
22 demand, demand will be deemed to be the average energy delivery

1 multiplied by a multiplier specified in the applicable transmission
2 rate schedule for the Transmission Customer's firm power service.
3 For all calculations other than demand, the energy will be spread
4 evenly across the hours within each diurnal period. If this
5 arrangement is not acceptable to Bonneville or to the Transmission
6 Customer, the dissatisfied party may pay to have hourly metering
7 installed. The default (load factor) billing approach will be used
8 until such hourly metering can be installed. No retroactive billing
9 adjustments will be made after the metering is installed.

10 (10) Either party has the right to install, at its own expense, meters
11 meeting the standards provided in this section whenever a default
12 billing methodology is being used in lieu of physical metering.

13 (11) Unless otherwise agreed, Bonneville will own & maintain RMS
14 equipment which is used for Bonneville business purposes and
15 which is installed on or after the Effective Date, without regard to
16 who originally paid for the equipment. The Transmission
17 Customer agrees to give Bonneville "first right of refusal" for
18 performing meter maintenance. Bonneville will bill the
19 Transmission Customer for maintenance performed by Bonneville
20 and for any needed replacement of meters that were originally
21 purchased by the Transmission Customer.

1 (12) If any Transmission Customer meter used to supply billing data
2 fails to meet Bonneville standards for accuracy and reliability,
3 Bonneville may, at Transmission Customer expense, have such
4 metering repaired or replaced with a meter that complies with
5 Bonneville standards.

6 (f) **Data, Information, and Reports**

- 7 (1) The Transmission Customer shall, upon request, provide
8 Bonneville with such reports and information concerning its
9 network operation as are reasonably necessary to enable
10 Bonneville to operate its transmission system adequately.
- 11 (2) Scheduling--Hourly transactions from outside of Bonneville' s
12 Control Area, in whole megawatts, are prescheduled by voice
13 and/or sent on data link to Bonneville. Hourly transactions, and
14 forecasts of generation and load from within Bonneville' s Control
15 Area, are prescheduled over the data link. Schedules can be
16 changed in this same manner no later than thirty minutes before the
17 schedules go into effect.

18 The Transmission Customer shall notify Bonneville of
19 desired transactions into or out of the Bonneville Control Area for
20 the next normal preschedule period by voice no later than 10 a.m.
21 No later than 2 p.m. of each normal business day, the Transmission
22 Customer shall finalize preschedules by voice and transmit all the
23 preschedules and forecasts over the data link in a format specified

1 by Bonneville. The Transmission Customer shall update the
2 preschedules and forecasts before midnight. Such preschedules
3 and forecasts shall include, as applicable: (i) each import into or
4 export out of the Bonneville Control Area; (ii) each power
5 purchase and sale from within the Bonneville Control Area; (iii)
6 losses; (iv) generation from each Network Resource; (v) Network
7 Load at each point designated in the Specifications for the Service
8 Agreement; (vi) Regulating Margin; (vii) Spinning or Non-
9 Spinning Operating Reserve from each Network Resource; (viii)
10 Spinning and Non-Spinning Operating Reserve purchased from
11 Bonneville or each third party; (ix) the Transmission Customer's
12 MSSC; (x) available capacity from each Network Resource; (xi)
13 transmission service associated with each preschedule and
14 forecast; (xii) incremental and decremental cost data for Network
15 Resources; and (xiii) other information, as required by Bonneville.

16 (3) Annual Forecast. By January 10 of each year, the
17 Transmission Customer shall update its load and resource forecast
18 for the next 10 years pursuant to Sections 4.2 and 7.6 of the Tariff
19 by providing Bonneville with a nonbinding typical weekday and
20 typical weekend forecast on a seasonal basis in a format specified
21 by Bonneville.

22 (4) Monthly Forecast. By the 15th of each month, the
23 Transmission Customer shall provide a forecast of expected

1 network load, network resource outputs, purchases and sales that
2 use the Bonneville transmission system, and Ancillary Services
3 purchased from Bonneville for each of the next 12 months on
4 Heavy Load hours (HLH) and Light Load Hours (LLH). The
5 Transmission Customer shall also provide by the 15th of each
6 month a forecast of their total monthly energy for each of the next
7 12 months for their entire load.

8 (5) Daily Forecast. Each day by 10 a.m., the Transmission Customer
9 shall provide a forecast of their network load, network resource
10 outputs, purchases and sales that use the Bonneville transmission
11 system and Ancillary Services purchased from Bonneville for each
12 hour of the next 7 days. The Transmission Customer will also
13 provide a forecast of these quantities for days 8 through 30 on
14 HLH and LLH by 10 a.m. each day.

15 (6) Hydrogeneration Forecast. By the tenth of the months of February
16 through June of each year, the Transmission Customer shall
17 provide a revised hydrogeneration forecast for the current month
18 and for each month remaining in the year, if applicable.

19 (7) Unless otherwise agreed, the Transmission Customer shall
20 telemeter to Bonneville information including but not limited to:
21 generator output (megawatts and megavars), generator status,
22 breaker status, switch status, megawatt and megavar flow on lines,

1 bus voltages, transformer tap position, and generator terminal
2 voltage.

- 3 (8) The Transmission Customer shall provide generating resource
4 characteristics to Bonneville as necessary to implement redispatch,
5 and constraint and reserve management.

6 (g) **Data Reporting Requirements**

- 7 (1) When HDRH data is required, hourly metered data for points of
8 AGC interchange must be furnished electronically to Bonneville's
9 Dittmer and Munro Control Centers within three minutes after the
10 end of each clock hour. Data is to be reported through the
11 Bonneville KWH metering system, inter-utility data exchange
12 system (IDES) or an approved alternative.

- 13 (2) Hourly metered data for:
14 (i) PODs (excluding points of AGC Interchange);
15 (ii) NLSLs; and
16 (ii) eccentric loads
17 is to be furnished to Bonneville at least once a month (HDRM), at
18 the end of Bonneville's billing cycle for the Transmission
19 Customer.

- 20 (3) The Transmission Customer agrees to submit a meter slip to
21 Bonneville for all metering points which do not currently have:
22 (i) Metering capable of providing hourly kWh and kvarh
23 quantities to Bonneville; or

- 1 (ii) electronic communications for such metered amounts
2 (through the Revenue Metering System or equivalent).
- 3 (4) Telemetered data must be furnished to Bonneville' s Dittmer and
4 Munro Control Centers continuously on a real-time basis via
5 10-30 Hertz telemetry, Bonneville' s Supervisory Control and Data
6 Acquisition system (SCADA) or another data collection method as
7 determined by Bonneville.
- 8 (5) When HDRH data is required, hourly metered data for points of
9 generation integration and points of AGC interchange must be
10 furnished to Bonneville' s Dittmer and Munro Control Centers at
11 the end of each clock hour. Data is to be reported through the
12 Bonneville KWH metering system, inter-utility data exchange
13 system (IDES) or an approved alternative.
- 14 (6) Hourly metered data for:
15 (i) PODs (excluding points of AGC Interchange);
16 (ii) NLSLs; and
17 (ii) eccentric loads
18 is to be furnished to Bonneville at least once a month (HDRM), at
19 the end of Bonneville' s billing cycle for the Transmission
20 Customer.
- 21 (7) The Transmission Customer agrees to submit a meter slip to
22 Bonneville for all metering points which do not currently have:

- 1 (i) metering capable of providing hourly kWh and kvarh
2 quantities to Bonneville; or
3 (ii) electronic communications for such metered amounts
4 (through the Revenue Metering System or equivalent).

5 (h) **Metering Tests**

6 Both Bonneville and the Transmission Customer will inspect and test each
7 of its respective meters used to measure power flowing between the
8 parties:

- 9 (1) with the same frequency and using the same standards as
10 Bonneville; and
11 (2) upon the request of the other party.

12 Each party will give reasonable notice to the other stating when a test or inspection will
13 occur. The other party has the right to have one or more representatives present at such
14 test or inspection, regardless of meter ownership or location

15 **14. Metering Costs**

16 (a) **Metering of Existing Facilities**

17 Bonneville shall be responsible for the costs of any Bonneville-required meter
18 replacement or new meter installation at any Transmission Customer facility that is
19 used for delivery of Federal power at an existing facility on the Effective Date of this
20 Agreement.

21 The Transmission Customer shall be responsible for the costs of:

- 1 (i) any meter replacement or new installation at points of delivery
2 (POD) which are not required to achieve the best overall plan of
3 service (convenience PODs);
- 4 (ii) meters needed because the Transmission Customer is removing
5 load from Bonneville; and/or meters requested by the Transmission
6 Customers.

7 (b) **Metering of New Transmission Customer Facilities**

8 The Transmission Customer will pay all costs associated with installing Bonneville-
9 approved metering at any of the following types of facilities whenever the
10 Transmission Customer, after the Effective Date of this Agreement, establishes a new
11 facility for which Bonneville has determined that metering is required:

- 12 (i) all points of generation (resource) integration; and
13 (ii) all Automatic Generation Control (AGC) interchange points; and
14 (iii) all other points of electrical interconnection, including convenience PODs

15 **15. Communications**

- 16 (a) The Transmission Customer shall, at its own expense, install and maintain two
17 communication links for scheduling. One communication link shall be used for
18 data transfer and the other link for voice communication.
- 19 (b) A Transmission Customer either contributing to its own Spinning and/or
20 Non-Spinning Operating Reserve obligations or securing these services from a
21 third party shall, at its own expense, install and maintain a minimum of three
22 communications links between all parties for real-time operations purposes. Two

1 redundant alternately routed communications links shall be used to pass necessary
 2 operating and reserves related information between Bonneville and the
 3 appropriate resources and/or third parties. The third link shall be used for voice
 4 communications purposes.

5 IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their
 6 respective authorized officials.

7 Bonneville Power Administration:

8 By: _____
 9 Name Title Date

10 Transmission Customer:

11 By: _____
 12 Name Title Date

Appendix D

Schedule 1

Scheduling and Dispatch

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4 Scheduling and Dispatch provides all scheduling and dispatching activities, directly related to
5 transmission scheduling and transmission dispatching of Bonneville's transmission system.
6 These activities include; prescheduling of available Bonneville transmission capacity; real-time
7 scheduling of available Bonneville transmission capacity; dispatch of Bonneville's transmission
8 system; confirmation and verification of individual transmission schedules, including
9 preschedules, after-the fact or real time changes, scheduling return energy associated with losses,
10 and net interchange between control areas.

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Appendix D

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Schedule 2

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Control Area Reserves for Resources

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Control Area Reserves for Resources provides for the generation following needs and operating

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reserve obligations required to operate a resource located within Bonneville's control area.

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Control Area Reserves for Resources provide backup service, including regulating margin,

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spinning and non-spinning operating reserves and frequency control services for the remainder of

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the delivery hour when the resource incurs a forced outage. It does *not* provide for backup

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service for a forced outage period *longer than 60 minutes*.

1 **Appendix D**

2 **Schedule 3**

3 **Control Area Reserves for Interruptible Purchases**

4 Control Area Reserves for Interruptible Purchases provides the non-spinning and operating
5 reserves necessary to cover the non-spinning operating reserve obligation associated with
6 customer purchases from outside the Bonneville Control Area whose energy or transmission
7 components are defined as interruptible during the hours of delivery..

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Appendix D

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Schedule 4

Load Regulation

3 Load Regulation provides regulation of the supply of firm power to follow variations in loads
4 within Bonneville' s control area, on an instantaneous or second by second basis *within* the hour.
5 The amount of Load Regulation provided is related to the customer' s retail load variations. The
6 generation-following component of Control Area Reserves for Resources provides an analogous
7 service for generating plants within Bonneville' s control area.

1 **Appendix D**

2 **Schedule 5**

3 **Transmission Losses**

4 (a) Transmission Losses are power losses associated with transmission service where the
5 Transmission Customer elects to purchase the loss amounts from Bonneville. Losses are defined
6 here as the amount of electric power dissipated during transmission and replaced by Bonneville's
7 power.

8 (b) The Transmission Customer may elect to purchase or return losses. The choice can be
9 made with one month's notice but not more frequently than once every 12 months.

10 (c) Currently, losses are calculated after the fact. Bonneville shall provide Transmission
11 Customers the opportunity to schedule concurrent losses within two (2) years of the effective
12 date of this Tariff.

1 **Appendix D**

2 **Schedule 6**

3 **Energy Imbalance**

4 Energy Imbalance Service is provided when a difference occurs between the hourly scheduled
5 amount and the hourly metered (actual delivered) amount associated with transmission of power
6 on the FCRTS to a load located in Bonneville's Control Area or from a generation resource
7 located within Bonneville's Control Area. Bonneville shall allow an Energy Imbalance Band of
8 +/- 1.5 percent of the schedule (with a required minimum band of +/- one megawatt) to be
9 applied hourly to any energy imbalance that occurs as a result of the Transmission Customer's
10 scheduled transmission to loads or from resources located in Bonneville's Control Area.
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Appendix E

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INDEX OF CUSTOMERS UNDER NETWORK INTEGRATION SERVICE TARIFF

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Customer

Date of Service Agreement

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