# 2012 Transmission and Ancillary Service Rate Schedules

# General Rate Schedule Provisions (FY 2012-2013)

October 2011





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#### United States Department of Energy Bonneville Power Administration 905 N.E. 11<sup>th</sup> Avenue Portland, OR 97232

Bonneville Power Administration's 2012 Transmission, Ancillary and Control Area Service Rate Schedules and General Rate Schedule Provisions, effective October 1, 2011, and contained herein, were approved on an interim basis by the Federal Energy Regulatory Commission on September 22, 2011. U.S. Dep't of Energy – Bonneville Power Admin., 136 FERC ¶62,253 (2011).

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These rate schedules and General Rate Schedule Provisions reflect all errata corrections as of the date of publication.

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### INDEX

# 2012 TRANSMISSION, ANCILLARY AND CONTROL AREA SERVICE

#### **RATE SCHEDULES**

# Page

RATE SCH	EDULES	1	
FPT-12.1 Fc	ormula Power Transmission Rate	3	
FPT-12.3 Formula Power Transmission Rate			
IR-12 Integr	IR-12 Integration of Resources Rate		
NT-12 Netw	NT-12 Network Integration Rate		
PTP-12 Poin	PTP-12 Point-To-Point Rate		
IS-12 South	ern Intertie Rate	23	
IM-12 Mont	ana Intertie Rate	27	
UFT-12 Use	of-Facilities Transmission Rate		
AF-12 Adva	nce Funding Rate		
TGT-12 Tov	vnsend-Garrison Transmission Rate	35	
IE-12 Easter	n Intertie Rate	37	
ACS-12 An	cillary and Control Area Services Rates		
CENEDAL	DATE SCHEDHLE DDOVISIONS	71	
	RATE SCHEDULE PROVISIONS		
Section I. G	enerally Applicable Provisions	73	
А.	Approval Of Rates	75	
B.	General Provisions	75	
C.	Notices	75	
D.	Billing and Payment	75	
Section II. A	djustments, Charges, and Special Rate Provisions	77	
А.	Delivery Charge	79	
B.	Failure To Comply Penalty Charge	80	
C.	Power Factor Penalty Charge	82	
D.	Rate Adjustment Due To FERC Order Under FPA § 212	86	
E.	Reservation Fee	87	
F.	Transmission and Ancillary Services Rate Discounts	88	
G.	Unauthorized Increase Charge (UIC)	89	
Н.	CRAC, DDC, and the NFB Mechanisms	92	
Section III.	Definitions	95	
1.	Ancillary Services	97	
2.	Billing Factor	97	
3.	Control Area	97	
4.	Control Area Services	97	
5.	Daily Service	98	
6.	Direct Assignment Facilities	98	

7.	Direct Service Industry (DSI) Delivery	98
8.	Dispatchable Energy Resource Balancing Service	98
9.	Dynamic Schedule	
10.	Dynamic Transfer	99
11.	Eastern Intertie	99
12.	Energy Imbalance Service	
13.	Federal Columbia River Transmission System	99
14.	Federal System	99
15.	Generation Imbalance	100
16.	Generation Imbalance Service	100
17.	Heavy Load Hours (HLH)	100
18.	Hourly Non-firm Service	100
19.	Integrated Demand	100
20.	Light Load Hours (LLH)	100
21.	Long-Term Firm Point-To-Point (PTP) Transmission Service	101
22.	Main Grid	
23.	Main Grid Distance	101
24.	Main Grid Interconnection Terminal	101
25.	Main Grid Miscellaneous Facilities	101
26.	Main Grid Terminal	101
27.	Measured Demand	101
28.	Metered Demand	102
29.	Montana Intertie	102
30.	Monthly Service	102
31.	Monthly Transmission Peak Load	102
32.	Network (or Integrated Network)	
33.	Network Integration Transmission (NT) Service	103
34.	Network Load	103
35.	Network Upgrades	
36.	Non-Firm Point-To-Point (PTP) Transmission Service	103
37.	Operating Reserve Spinning Reserve Service	103
38.	Operating Reserve – Supplemental Reserve Service	104
39.	Operating Reserve Requirement	104
40.	Persistent Deviation	104
41.	Point of Delivery (POD)	105
42.	Point of Integration (POI)	106
43.	Point of Interconnection (POI)	106
44.	Point of Receipt (POR)	106
45.	Provisional Variable Energy Resource Balancing Service	106
46.	Ratchet Demand	106
47.	Reactive Power	106
48.	Reactive Supply and Voltage Control from Generation Sources	
	Service	107
49.	Regulation and Frequency Response Service	107
50.	Reliability Obligations	107

51.	Reserved Capacity	107
52.	Scheduled Demand	
53.	Scheduling, System Control, and Dispatch Service	108
54.	Secondary System	108
55.	Secondary System Distance	108
56.	Secondary System Interconnection Terminal	108
57.	Secondary System Intermediate Terminal	109
58.	Secondary Transformation	
59.	Short-Term Firm Point-To-Point (PTP) Transmission Service	109
60.	Southern Intertie	109
61.	Spill Condition	109
62.	Spinning Reserve Requirement	109
63.	Supplemental Reserve Requirement	110
64.	Total Transmission Demand	110
65.	Transmission Customer	110
66.	Transmission Demand	110
67.	Transmission Provider	110
68.	Utility Delivery	111
69.	Variable Energy Resource Balancing Service	111
70.	Weekly Service	

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# **RATE SCHEDULES**

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# FPT-12.1 FORMULA POWER TRANSMISSION RATE

#### SECTION I. AVAILABILITY

This schedule supersedes Schedule FPT-10.1 for all firm transmission agreements that provide for application of FPT rates that may be adjusted not more frequently than once a year. This schedule is applicable only to such transmission agreements executed prior to October 1, 1996. It is available for firm transmission of non-Federal power using the Main Grid and/or Secondary System of the Federal Columbia River Transmission System. This schedule is for full-year and partial-year service and for either continuous or intermittent service when firm transmission service is required. For facilities at voltages lower than the Secondary System, a different rate schedule may be specified. Service under this schedule is subject to BPA-TS's General Rate Schedule Provisions (GRSPs).

#### SECTION II. RATES

The monthly charge per kilowatt (kW) shall be one-twelfth of the sum of the Main Grid Charge and the Secondary System Charge, as applicable and as specified in the agreement.

The Main Grid and Secondary System charges are calculated each quarter beginning October 2007 according to the following formula:

$$(1 + \frac{GSR_q}{\$1.327/kW/mo}) * FPT Base Charges$$
Where: $GSR_q$ =The ACS-12 Reactive Supply and Voltage Control  
From Generation Sources Service Rate for Long-Term  
Firm PTP Transmission Service and NT Service,  
section II.B.1.a., that is effective for the quarter for  
which the FPT rate is being calculated, in \$/kW/mo.FPT Base Charges=The following annual Main Grid and Secondary System  
charges:

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MA	AIN GRID CHARGES	
1.	Main Grid Distance	\$0.0587 per mile
2.	Main Grid Interconnection	\$0.61/kW
	Terminal	
3.	Main Grid Terminal	\$0.68/kW
4.	Main Grid Miscellaneous	\$3.35/kW
	Facilities	
SECONDARY SYSTEM CHARGES		
1.	Secondary System Distance	\$0.5772 per mile
2.	Secondary System	\$6.31/kW
	Transformation	
3.	Secondary System	\$2.44/kW
	Intermediate Terminal	
4.	Secondary System	\$1.73/kW
	Interconnection Terminal	

Main Grid Distance and Secondary System Distance charges shall be calculated to four decimal places. All other Main Grid and Secondary System charges shall be calculated to two decimal places.

The Main Grid Charge per kilowatt shall be the sum of one or more of the Main Grid annual charges, as specified in the agreement. The Secondary System Charge per kilowatt shall be the sum of one or more of the Secondary System annual charges, as specified in the agreement.

#### SECTION III. BILLING FACTORS

Unless otherwise stated in the agreement, the Billing Factor for the rates specified in section II shall be the largest of:

- A. The Transmission Demand;
- B. The highest hourly Scheduled Demand for the month; or
- C. The Ratchet Demand.

#### SECTION IV. ADJUSTMENTS, CHARGES, AND OTHER RATE PROVISIONS

#### A. ANCILLARY SERVICES

Ancillary Services that may be required to support FPT transmission service are available under the ACS rate schedule. FPT customers do not pay the ACS charges for Scheduling, System Control, and Dispatch Service or Reactive Supply and Voltage Control from Generation Sources Service, because these services are included in FPT service.

#### **B.** FAILURE TO COMPLY PENALTY

Customers taking service under this rate schedule are subject to the Failure to Comply Penalty Charge, specified in section II.B. of the GRSPs.

### C. POWER FACTOR PENALTY

Customers taking service under this rate schedule are subject to the Power Factor Penalty Charge, specified in section II.C. of the GRSPs.

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# FPT-12.3 FORMULA POWER TRANSMISSION RATE

#### SECTION I. AVAILABILITY

This schedule supersedes Schedule FPT-10.3 for all firm transmission agreements that provide for application of FPT rates that may be adjusted not more frequently than once every three years. This schedule is applicable only to such transmission agreements executed prior to October 1, 1996. It is available for firm transmission of non-Federal power using the Main Grid and/or Secondary System of the Federal Columbia River Transmission System. This schedule is for full-year and partial-year service and for either continuous or intermittent service when firm transmission service is required. For facilities at voltages lower than the Secondary System, a different rate schedule may be specified. Service under this schedule is subject to BPA-TS's General Rate Schedule Provisions (GRSPs).

#### SECTION II. RATES

The monthly charge per kilowatt (kW) shall be one-twelfth of the sum of the Main Grid Charge and the Secondary System Charge, as applicable and as specified in the agreement.

The Main Grid and Secondary System charges are calculated each quarter beginning October 2007 according to the following formula:

$$(1 + \frac{GSR_q}{\$1.327/kW/mo}) * FPT Base Charges$$
Where: $GSR_q$ =The ACS-12 Reactive Supply and Voltage Control  
From Generation Sources Service Rate for Long-Term  
Firm PTP Transmission Service and NT Service,  
section II.B.1.a., that is effective for the quarter for  
which the FPT rate is being calculated, in \$/kW/mo.FPT Base Charges=The following annual Main Grid and Secondary System  
charges:

MAIN GRID CHARGES		
1.	Main Grid Distance	\$0.0587 per mile
2.	Main Grid Interconnection	\$0.61/kW
	Terminal	
3.	Main Grid Terminal	\$0.68/kW
4.	Main Grid Miscellaneous	\$3.35/kW
	Facilities	
SECONDARY SYSTEM CHARGES		
1.	Secondary System Distance	\$0.5772 per mile
2.	Secondary System	\$6.31/kW
	Transformation	
3.	Secondary System	\$2.44/kW
	Intermediate Terminal	
4.	Secondary System	\$1.73/kW
	Interconnection Terminal	

Main Grid Distance and Secondary System Distance charges shall be calculated to four decimal places. All other Main Grid and Secondary System charges shall be calculated to two decimal places.

The Main Grid Charge per kilowatt shall be the sum of one or more of the Main Grid annual charges, as specified in the agreement. The Secondary System Charge per kilowatt shall be the sum of one or more of the Secondary System annual charges, as specified in the agreement.

#### SECTION III. BILLING FACTORS

Unless otherwise stated in the agreement, the Billing Factor for the rates specified in section II shall be the largest of:

- A. The Transmission Demand;
- B. The highest hourly Scheduled Demand for the month; or
- C. The Ratchet Demand.

#### SECTION IV. ADJUSTMENTS, CHARGES, AND OTHER RATE PROVISIONS

#### A. ANCILLARY SERVICES

Ancillary Services that may be required to support FPT transmission service are available under the ACS rate schedule. FPT customers do not pay the ACS charges for Scheduling, System Control, and Dispatch Service or Reactive Supply and Voltage Control from Generation Sources Service, because these services are included in FPT service.

#### **B.** FAILURE TO COMPLY PENALTY

Customers taking transmission service under FPT agreements are subject to the Failure to Comply Penalty Charge, specified in section II.B. of the GRSPs.

#### C. POWER FACTOR PENALTY

Customers taking transmission service under FPT agreements are subject to the Power Factor Penalty Charge, specified in section II.C. of the GRSPs.

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# IR-12 INTEGRATION OF RESOURCES RATE

#### SECTION I. AVAILABILITY

This schedule supersedes Schedule IR-10 and is available for transmission of non-Federal power for full-year firm transmission service and non-firm transmission service in amounts not to exceed the customer's total Transmission Demand using Federal Columbia River Transmission System Network and Delivery facilities. This schedule is applicable only to Integration of Resource (IR) agreements executed prior to October 1, 1996. Service under this schedule is subject to BPA-TS's General Rate Schedule Provisions (GRSPs).

#### SECTION II. RATES

The IR rates in sections A and B, below, are calculated each quarter beginning October 2007. These rates shall be calculated to three decimal places. The monthly IR rate shall be as provided in section A or section B.

#### A. BASE RATE

The Base Rate shall be the sum of:

- 1. \$1.498 per kilowatt per month (\$/kW/mo); and
- 2. ACS-12 Reactive Supply and Voltage Control From Generation Sources Service Rate for Long-Term Firm PTP Transmission Service and NT Service, section II.B.1.a., effective for the quarter for which the IR rate is being calculated, in \$/kW/mo.

#### **B.** SHORT DISTANCE DISCOUNT (SDD) RATE

For Points of Integration (POI) specified in the IR agreement as being short-distance POIs, for which Network facilities are used for a distance of less than 75 circuit miles, the monthly rate shall be the sum of:

- 1. \$0.203/kW/mo; and
- 2. ACS-12 Reactive Supply and Voltage Control From Generation Sources Service Rate for Long-Term Firm PTP Transmission Service and NT Service, section II.B.1.a., effective for the quarter for which the IR rate is being calculated, in \$/kW/mo; and

3. (0.6 + (0.4 x transmission distance/75)) x \$1.295/kW/mo

Where:

The transmission distance is the circuit miles between a designated POI for a generating resource of the customer and a designated Point of Delivery serving load of the customer. Short-distance POIs are determined by BPA-TS after considering factors in addition to transmission distance.

#### SECTION III. BILLING FACTORS

The Billing Factor for rates specified in section II shall be the largest of:

- A. The annual Transmission Demand, or, if defined in the agreement, the annual Total Transmission Demand;
- B. The highest hourly Scheduled Demand for the month; or
- C. The Ratchet Demand.

To the extent that the agreement provides for the IR customer to be billed for transmission service in excess of the Transmission Demand or Total Transmission Demand, as defined in the agreement, at an hourly non-firm rate, such excess transmission service shall not contribute to the Billing Factor for the IR rates in section II; provided that the IR customer requests such treatment and BPA-TS approves such request in accordance with the prescribed provisions in the agreement. The rate for transmission service in excess of the Transmission Demand will be pursuant to the Point-to-Point Rate (PTP-12) for Hourly Non-Firm Service.

When the Scheduled Demand or Ratchet Demand is the Billing Factor, short-distance POIs shall be charged the Base Rate specified in section II.A. for the amount in excess of Transmission Demand.

### SECTION IV. ADJUSTMENTS, CHARGES, AND OTHER RATE PROVISIONS

#### A. ANCILLARY SERVICES

Ancillary Services that may be required to support IR transmission service are available under the ACS rate schedule. IR customers do not pay the ACS charges for Scheduling, System Control, and Dispatch Service or Reactive Supply and Voltage Control from Generation Sources Service, because these services are included in IR service.

#### **B. DELIVERY CHARGE**

Customers taking service over Delivery facilities are subject to the Delivery Charge, specified in section II.A. of the GRSPs.

#### C. FAILURE TO COMPLY PENALTY

Customers taking service under this rate schedule are subject to the Failure to Comply Penalty Charge, specified in section II.B. of the GRSPs.

#### D. POWER FACTOR PENALTY

Customers taking service under this rate schedule are subject to the Power Factor Penalty Charge, specified in section II.C. of the GRSPs.

#### E. RATCHET DEMAND RELIEF

Under appropriate circumstances, BPA-TS may waive or reduce the Ratchet Demand. An IR customer seeking a reduction or waiver must demonstrate good cause for relief, including a demonstration that:

- 1. The event that resulted in the Ratchet Demand
  - a. was the result of an equipment failure or outage that could not reasonably have been foreseen by the customer; and
  - b. did not result in harm to BPA's transmission system or transmission services, or to any other Transmission Customer; or
- 2. The event that resulted in the Ratchet Demand
  - a. was inadvertent;
  - b. could not have been avoided by the exercise of reasonable care;
  - c. did not result in harm to BPA's transmission system or transmission services, or to any other Transmission Customer; and
  - d. was not part of a recurring pattern of conduct by the IR customer.

If the IR customer causes a Ratchet Demand to be established in a series of months during which the IR customer has not received notice from BPA-TS of such Ratchet Demands by billing or otherwise, and the Ratchet Demand(s) established after the first Ratchet Demand were due to the lack of notice, then BPA-TS may establish a Ratchet Demand for the IR customer based on the highest Ratchet Demand in the series. This highest Ratchet Demand will be charged in the month it is established and the following

11 months. All other Ratchet Demands based on such a series (including the Ratchet Demand established in the first month if it is not the highest Ratchet Demand) will be waived.

Ratchet Demand Relief is not available in the month in which the Ratchet Demand was established. For that month, the Customer will be assessed charges based upon the highest hourly Scheduled Demand Billing Factor.

# F. SELF-SUPPLY OF REACTIVE SUPPLY AND VOLTAGE CONTROL FROM GENERATION SOURCES SERVICE

A credit for self-supply of Reactive Supply and Voltage Control from Generation Sources Service will be available for IR customers on an equivalent basis to the credit for PTP Transmission Customers.

# NT-12 NETWORK INTEGRATION RATE

#### SECTION I. AVAILABILITY

This schedule supersedes Schedule NT-10. It is available to Transmission Customers taking Network Integration Transmission (NT) Service over Federal Columbia River Transmission System Network and Delivery facilities and to Transmission Customers taking Conditional Firm Service. Terms and conditions of service are specified in the Open Access Transmission Tariff. This schedule is available also for transmission service of a similar nature that may be ordered by the Federal Energy Regulatory Commission (FERC) pursuant to sections 211 and 212 of the Federal Power Act (16 U.S.C. §§ 824j and 824k). Service under this schedule is subject to BPA-TS's General Rate Schedule Provisions (GRSPs).

#### SECTION II. RATES

The monthly charge will be the sum of A and B.

#### A. BASE CHARGE

\$1.298 per kilowatt per month

#### **B.** LOAD SHAPING CHARGE

\$0.367 per kilowatt per month

#### SECTION III. BILLING FACTORS

#### A. BASE CHARGE

The monthly Billing Factor for the Base Charge specified in section II.A. shall be the customer's Network Load on the hour of the Monthly Transmission Peak Load.

#### **B.** LOAD SHAPING CHARGE

The monthly Billing Factor for the Load Shaping Charge specified in section II.B. shall be the customer's Network Load on the hour of the Monthly Transmission Peak Load.

#### SECTION IV. ADJUSTMENTS, CHARGES, AND OTHER RATE PROVISIONS

#### A. ANCILLARY SERVICES

Customers taking service under this rate schedule are subject to the ACS Scheduling, System Control, and Dispatch Service Rate and the Reactive Supply and Voltage Control from Generation Sources Service Rate. Other Ancillary Services that are required to support NT Service are also available under the ACS rate schedule.

#### **B. DELIVERY CHARGE**

Customers taking NT Service over Delivery facilities are subject to the Delivery Charge, specified in section II.A. of the GRSPs.

#### C. FAILURE TO COMPLY PENALTY

Customers taking NT Service are subject to the Failure to Comply Penalty Charge, specified in section II.B. of the GRSPs.

#### D. METERING ADJUSTMENT

At those Points of Delivery that do not have meters capable of determining the demand on the hour of the Monthly Transmission Peak Load, the Billing Demand shall be calculated by substituting 1) the sum of the highest hourly demand that occurs during the billing month at all Points of Delivery multiplied by 0.79 for 2) Network Load on the hour of the Monthly Transmission Peak Load.

#### E. POWER FACTOR PENALTY

Customers taking service under this rate are subject to the Power Factor Penalty Charge, specified in section II.C. of the GRSPs.

#### F. SHORT-DISTANCE DISCOUNT (SDD)

A Customer's monthly NT bill shall be adjusted to reflect a Short Distance Discount (SDD) when a Customer has a resource that (1) is designated as a Network Resource (DNR) in the customer's NT Service Agreement for at least 12 months, and (2) uses FCRTS facilities for less than 75 circuit miles for delivery to the Network Load. A DNR that is a system sale (the DNR is not associated with a specific generating resource) does not qualify for the SDD. Any DNR that is eligible for the SDD (DNR SD) must be noted as such in the NT Service Agreement.

The NT monthly bill will be reduced by a credit equal to:

Avg. Generation of the X NT Rate X <u>75–Tx Distance</u> X 0.4 DNR SD 75 during HLH

Where:

Average Generation during HLH =	<ul> <li>The output serving Network Load during HLH on a firm basis over the billing month, divided by the number of HLH during the month, multiplied by the ratio of the Qualifying Capacity of the DNR SD output serving the Customer's POD(s) to the total DNR SD designated capacity.</li> <li>The output serving Network Load is:</li> <li>1. in the case of a scheduled DNR SD, the sum of firm schedules to Network Load; and</li> <li>2. in the case of Behind the Meter Resources, the metered output of the resource.</li> </ul>
NT Rate =	NT Base Charge
Tx Distance =	<ul> <li>The contractually specified distance measured in circuit miles between the DNR SD POR and the Customer's nearest POD(s) within 75 circuit miles of the DNR SD.</li> <li>1. BPA shall use the peak load for the prior calendar year for the POD nearest to the DNR SD to calculate how much of the DNR SD's designated capacity is allocated to that POD. If the peak load for the prior calendar year of the closest POD is less than the DNR SD's designated capacity, then BPA shall use the next nearest POD that is within 75 circuit miles of the DNR SD, continuing until the DNR SD's designated capacity is fully allocated to the qualifying PODs, subject to section 2 below. The Tx Distance shall be the sum of the distance from the DNR SD to each of the PODs, weighted by the DNR SD allocated to any POD may not exceed the POD's peak load.</li> <li>3. For a DNR SD directly connected to the customer's system (including Behind the Meter Resources) or a DNR SD that does not use BPA's network facilities, the TX Distance shall be zero.</li> </ul>

Qualifying Capacity =	The sum of all DNR SD designated capacity allocated to the Customer's POD(s).
	For a DNR SD directly connected to the customer's system (including Behind the Meter Resources) or a DNR SD that does not use BPA's network facilities, the Qualifying Capacity shall be the total DNR SD designated capacity.
Behind the Meter Resource =	A resource that is used solely to serve the NT Customer's Network Load and is internal to the NT Customer's system.

#### G. DIRECT ASSIGNMENT FACILITIES

BPA-TS shall collect the capital and related costs of a Direct Assignment Facility under the Advance Funding (AF) rate or the Use-of-Facilities (UFT) rate. Other associated costs, including but not limited to operations, maintenance, and general plant costs, also shall be recovered from the Network Customer under an applicable rate schedule.

#### H. INCREMENTAL COST RATES

The rates specified in section II are applicable to service over available transmission capacity. Network Customers that integrate new Network Resources, new Member Systems, or new native load customers that would require BPA-TS to construct Network Upgrades shall be subject to the higher of the rates specified in section II or incremental cost rates for service over such facilities. Incremental cost rates would be developed pursuant to section 7(i) of the Northwest Power Act.

#### I. RATE ADJUSTMENT DUE TO FERC ORDER UNDER FPA § 212

Customers taking service under this rate schedule are subject to the Rate Adjustment Due to FERC Order under FPA § 212, specified in section II.D. of the GRSPs.

# PTP-12 POINT-TO-POINT RATE

#### SECTION I. AVAILABILITY

This schedule supersedes Schedule PTP-10. It is available to Transmission Customers taking Point-to-Point (PTP) Transmission Service over Federal Columbia River Transmission System (FCRTS) Network and Delivery facilities, for hourly non-firm service over such FCRTS facilities for customers with Integration of Resources agreements, and to customers taking Conditional Firm (CF) Transmission Service, if BPA adopts CF Transmission Service. Terms and conditions of PTP are specified in the Open Access Transmission Tariff. This schedule is available also for transmission service of a similar nature that may be ordered by the Federal Energy Regulatory Commission (FERC) pursuant to sections 211 and 212 of the Federal Power Act (16 U.S.C. §§ 824j and 824k). Service under this schedule is subject to BPA-TS's General Rate Schedule Provisions (GRSPs).

#### SECTION II. RATES

#### A. LONG-TERM FIRM PTP TRANSMISSION SERVICE

\$1.298 per kilowatt per month

#### B. SHORT-TERM FIRM AND NON-FIRM PTP TRANSMISSION SERVICE

For each reservation, the rates shall not exceed:

#### 1. Monthly, Weekly, and Daily Firm and Non-Firm Service

- a. Days 1 through 5 \$0.060 per kilowatt per day
- **b.** Day 6 and beyond \$0.046 per kilowatt per day

#### 2. Hourly Firm and Non-Firm Service

3.74 mills per kilowatthour

#### SECTION III. BILLING FACTORS

# A. ALL FIRM SERVICE AND MONTHLY, WEEKLY, AND DAILY NON-FIRM SERVICE

The Billing Factor for each rate specified in sections II.A. and II.B. for all service shall be the Reserved Capacity, which is the greater of:

- 1. the sum of the capacity reservations at the Point(s) of Receipt, or
- 2. the sum of the capacity reservations at the Point(s) of Delivery.

#### **B. REDIRECT SERVICE**

Redirecting Long-Term Firm PTP to Short-Term Firm PTP service will not result in an additional charge if the capacity reservation does not exceed the amount reserved in the existing service agreement.

#### SECTION IV. ADJUSTMENTS, CHARGES, AND OTHER RATE PROVISIONS

#### A. ANCILLARY SERVICES

Customers taking service under this rate schedule are subject to the ACS Scheduling, System Control, and Dispatch Service Rate and the Reactive Supply and Voltage Control from Generation Sources Service Rate. Other Ancillary Services that are required to support PTP Transmission Service on the Network are available under the ACS rate schedule.

#### **B. DELIVERY CHARGE**

Customers taking PTP Transmission Service over Delivery facilities are subject to the Delivery Charge, specified in section II.A. of the GRSPs.

#### C. FAILURE TO COMPLY PENALTY

Customers taking service under this rate schedule are subject to the Failure to Comply Penalty Charge, specified in section II.B. of the GRSPs.

#### D. INTERRUPTION OF NON-FIRM PTP TRANSMISSION SERVICE

If daily, weekly, or monthly Non-Firm PTP Transmission Service is interrupted, the rates charged under section II.B.1 shall be prorated over the total hours in the day to give credit for the hours of such interruption.

When Reserved Capacity becomes the Billing Factor for Hourly Non-Firm Service, the following shall apply:

- 1. If the need for Curtailment is caused by conditions on the FCRTS, the Billing Factor will be as follows:
  - a. If Hourly Non-Firm PTP Transmission Service is Curtailed or Interrupted before the close of the hourly non-firm scheduling window, the Billing Factor will be the Reserved Capacity minus the curtailed capacity.

- b. If Hourly Non-Firm PTP Transmission Service is Curtailed or Interrupted after the close of the hourly non-firm scheduling window, the Billing Factor will be the Transmission Customer's actual schedule in the hour.
- 2. If the need for Curtailment is caused by conditions on another transmission provider's transmission system, the Billing Factor will be the Reserved Capacity.

#### E. POWER FACTOR PENALTY

Customers taking service under this rate schedule are subject to the Power Factor Penalty Charge, specified in section II.C. of the GRSPs.

#### F. **RESERVATION FEE**

Customers that postpone the commencement of Long-Term Firm Point-To-Point Transmission Service by requesting an extension of the Service Commencement Date will be subject to the Reservation Fee, specified in section II.E. of the GRSPs.

#### G. SHORT-DISTANCE DISCOUNT (SDD)

When a Point of Receipt (POR) and Point of Delivery (POD) use FCRTS facilities for a distance of less than 75 circuit miles and are designated as being short distance in the PTP Service Agreement, the monthly capacity reservations for the relevant POR and POD shall be adjusted, for the purpose of computing the monthly bill for annual service, by the following factor:

0.6 + (0.4 x transmission distance/75)

Such adjusted monthly POR and POD reservations shall be used to compute the billing factors in section III.A to calculate the monthly bill for Long-Term Firm PTP Transmission Service. The POD capacity reservation eligible for the SDD may be no larger than the POR capacity reservation. The distance used to calculate the SDD will be contractually specified and based upon path(s) identified in power flow studies. If a set of contiguous PODs qualifies for an SDD, the transmission distance used in the calculation of the SDD shall be between the POR and the POD farthest from the POR.

If the customer requests secondary PORs or PODs that use SDD-adjusted capacity reservations for any period of time during a month, the SDD shall not be applied that month.

#### H. UNAUTHORIZED INCREASE CHARGE

Customers that exceed their capacity reservations at any Point of Receipt (POR) or Point of Delivery (POD) shall be subject to the Unauthorized Increase Charge, specified in section II.G. of the GRSPs.

#### I. DIRECT ASSIGNMENT FACILITIES

BPA-TS shall collect the capital and related costs of a Direct Assignment Facility under the Advance Funding (AF) rate or the Use-of-Facilities (UFT) rate. Other associated costs, including but not limited to operations, maintenance, and general plant costs, also shall be recovered from the PTP Transmission Customer under an applicable rate schedule.

#### J. INCREMENTAL COST RATES

The rates specified in section II. are applicable to service over available transmission capacity. Customers requesting new or increased firm service that would require BPA-TS to construct Network Upgrades to alleviate a capacity constraint may be subject to incremental cost rates for such service if incremental cost is higher than embedded cost. Incremental cost rates would be developed pursuant to section 7(i) of the Northwest Power Act.

#### K. RATE ADJUSTMENT DUE TO FERC ORDER UNDER FPA § 212

Customers taking service under this rate schedule are subject to the Rate Adjustment Due to FERC Order under FPA § 212, specified in section II.D. of the GRSPs.

# IS-12 SOUTHERN INTERTIE RATE

#### SECTION I. AVAILABILITY

This schedule supersedes Schedule IS-10. It is available to Transmission Customers taking Point-to-Point Transmission Service over Federal Columbia River Transmission System (FCRTS) Southern Intertie facilities. Terms and conditions of service are specified in the Open Access Transmission Tariff or, for customers that executed Southern Intertie agreements with BPA before October 1, 1996, will be as provided in the customer's agreement with BPA. This schedule is available also for transmission service of a similar nature that may be ordered by the Federal Energy Regulatory Commission (FERC) pursuant to sections 211 and 212 of the Federal Power Act (16 U.S.C. §§ 824j and 824k). Service under this schedule is subject to BPA-TS's General Rate Schedule Provisions (GRSPs).

#### SECTION II. RATES

#### A. LONG-TERM FIRM PTP TRANSMISSION SERVICE

\$1.293 per kilowatt per month

#### B. SHORT-TERM FIRM AND NON-FIRM PTP TRANSMISSION SERVICE

For each reservation, the rates shall not exceed:

#### 1. Monthly, Weekly, and Daily Firm and Non-Firm Service

- a. Days 1 through 5 \$0.060 per kilowatt per day
- **b.** Day 6 and beyond \$0.045 per kilowatt per day

#### 2. Hourly Firm and Non-Firm Service

3.72 mills per kilowatthour

#### SECTION III. BILLING FACTORS

# A. ALL FIRM SERVICE AND MONTHLY, WEEKLY, AND DAILY NON-FIRM SERVICE

The Billing Factor for each rate specified in sections II.A. and II.B. for all service shall be the Reserved Capacity, which is the greater of:

- 1. the sum of the capacity reservations at the Point(s) of Receipt, or
- 2. the sum of the capacity reservations at the Point(s) of Delivery.

For Southern Intertie transmission agreements executed prior to October 1, 1996, the Billing Factor shall be as specified in the agreement.

#### **B. REDIRECT SERVICE**

Redirecting Long-Term Firm PTP to Short-Term Firm PTP service will not result in an additional charge if the capacity reservation does not exceed the amount reserved in the existing service agreement.

#### SECTION IV. ADJUSTMENTS, CHARGES, AND OTHER RATE PROVISIONS

#### A. ANCILLARY SERVICES

Customers taking service under this rate schedule are subject to the ACS Scheduling, System Control, and Dispatch Service Rate and the Reactive Supply and Voltage Control from Generation Sources Service Rate. Other Ancillary Services that are required to support PTP Transmission Service on the Southern Intertie are available under the ACS rate schedule.

#### **B.** FAILURE TO COMPLY PENALTY

Customers taking service under this rate schedule are subject to the Failure to Comply Penalty Charge specified in section II.B. of the GRSPs.

#### C. INTERRUPTION OF NON-FIRM PTP TRANSMISSION SERVICE

If daily, weekly, or monthly Non-Firm PTP Transmission Service is interrupted, the rates charged under section II.B.1. shall be prorated over the total hours in the day to give credit for the hours of such interruption.

When Reserved Capacity becomes the Billing Factor for Hourly Non-Firm Service, the following shall apply:

- 1. If the need for Curtailment is caused by conditions on the Federal Columbia River Transmission System, the Billing Factor will be as follows:
  - a. If Hourly Non-Firm PTP Transmission Service is Curtailed or Interrupted before the close of the hourly non-firm scheduling window, the Billing Factor will be the Reserved Capacity minus the curtailed capacity.
  - b. If Hourly Non-Firm PTP Transmission Service is Curtailed or Interrupted after the close of the hourly non-firm scheduling window, the Billing Factor will be the Transmission Customer's actual schedule in the hour.
- 2. If the need for Curtailment is caused by conditions on another transmission provider's transmission system, the Billing Factor will be the Reserved Capacity.

#### D. POWER FACTOR PENALTY

Customers taking service under this rate schedule are subject to the Power Factor Penalty Charge specified in section II.C. of the GRSPs.

#### E. RESERVATION FEE

Customers that postpone the commencement of Long-Term Firm Point-To-Point Transmission Service by requesting an extension of their Service Commencement Date will be subject to the Reservation Fee specified in section II.E of the GRSPs.

### F. UNAUTHORIZED INCREASE CHARGE

Customers that exceed their capacity reservations at any Point of Receipt (POR) or Point of Delivery (POD) shall be subject to the Unauthorized Increase Charge, specified in section II.G. in the GRSPs.

### G. DIRECT ASSIGNMENT FACILITIES

BPA-TS shall collect the capital and related costs of a Direct Assignment Facility under the Advance Funding (AF) rate or the Use-of-Facilities (UFT) rate. Other associated costs, including but not limited to operations, maintenance, and general plant costs, also shall be recovered from the Transmission Customer under an applicable rate schedule.

### H. INCREMENTAL COST RATES

The rates specified in section II. are applicable to service over available transmission capacity. Customers requesting new or increased firm service that would require BPA-TS to construct new facilities or upgrades to alleviate a capacity constraint may be subject to incremental cost rates for such service if incremental cost is higher than embedded cost. Incremental cost rates would be developed pursuant to section 7(i) of the Northwest Power Act.

#### I. RATE ADJUSTMENT DUE TO FERC ORDER UNDER FPA § 212

Customers taking service under this rate schedule are subject to the Rate Adjustment Due to FERC Order under FPA § 212, specified in section II.D. of the GRSPs.

## IM-12 MONTANA INTERTIE RATE

#### SECTION I. AVAILABILITY

This schedule supersedes Schedule IM-10. It is available to Transmission Customers taking Point-to-Point (PTP) Transmission Service on the Eastern Intertie. Terms and conditions of service are specified in the Open Access Transmission Tariff. This transmission capacity schedule is available also for transmission service of a similar nature that may be ordered by the Federal Energy Regulatory Commission (FERC) pursuant to sections 211 and 212 of the Federal Power Act (16 U.S.C. §§ 824j and 824k). Service under this schedule is subject to BPA-TS's General Rate Schedule Provisions (GRSPs).

#### SECTION II. RATES

#### A. LONG-TERM FIRM PTP TRANSMISSION SERVICE

\$0.598 per kilowatt per month

#### B. SHORT-TERM FIRM AND NON-FIRM PTP TRANSMISSION SERVICE

For each reservation, the rates shall not exceed:

#### 1. Monthly, Weekly, and Daily Short-Term Firm and Non-Firm Service

- a. Days 1 through 5 \$0.028 per kilowatt per day
- **b. Day 6 and beyond** \$0.020 per kilowatt per day
- 2. Hourly Firm and Non-Firm Service
  - 1.72 mills per kilowatthour

#### SECTION III. BILLING FACTORS

# A. ALL FIRM SERVICE AND MONTHLY, WEEKLY, AND DAILY NON-FIRM SERVICE

The Billing Factor for each rate specified in section II.A. and II.B. for all service shall be the Reserved Capacity, which is the greater of:

1. the sum of the capacity reservations at the Point(s) of Receipt, or

2. the sum of the capacity reservations at the Point(s) of Delivery.

## **B. REDIRECT SERVICE**

Redirecting Long-Term Firm PTP to Short-Term Firm PTP service will not result in an additional charge if the capacity reservation does not exceed the amount reserved in the existing service agreement.

## SECTION IV. ADJUSTMENTS, CHARGES, AND OTHER RATE PROVISIONS

## A. ANCILLARY SERVICES

Customers taking service under this rate schedule are subject to the ACS Scheduling, System Control, and Dispatch Service Rate and the Reactive Supply and Voltage Control from Generation Sources Service Rate. Other Ancillary Services that are required to support PTP Transmission Service on the Montana Intertie are available under the ACS rate schedule.

## B. FAILURE TO COMPLY PENALTY CHARGE

Customers taking service under this rate schedule are subject to the Failure to Comply Penalty Charge, specified in section II.B. of the GRSPs.

#### C. INTERRUPTION OF NON-FIRM PTP TRANSMISSION SERVICE

If daily, weekly, or monthly Non-Firm PTP Transmission Service is interrupted, the rates charged under section II.B.1. shall be prorated over the total hours in the day to give credit for the hours of such interruption.

When Reserved Capacity becomes the Billing Factor for Hourly Non-Firm Service, the following shall apply:

- 1. If the need for Curtailment is caused by conditions on the Federal Columbia River Transmission System, the Billing Factor will be as follows:
  - a. If Hourly Non-Firm PTP Transmission Service is Curtailed or Interrupted before the close of the hourly non-firm scheduling window, the Billing Factor will be the Reserved Capacity minus the curtailed capacity.
  - b. If Hourly Non-Firm PTP Transmission Service is Curtailed or Interrupted after the close of the hourly non-firm scheduling window, the Billing Factor will be the Transmission Customer's actual schedule in the hour.
- 2. If the need for Curtailment is caused by conditions on another transmission provider's transmission system, the Billing Factor will be the Reserved Capacity.

## **D. RESERVATION FEE**

Customers that postpone the commencement of Long-Term Firm Point-To-Point Transmission Service by requesting an extension of their Service Commencement Date will be subject to the Reservation Fee, specified in section II.E. of the GRSPs.

## E. UNAUTHORIZED INCREASE CHARGE

Customers that exceed their capacity reservations at any Point of Receipt (POR) or Point of Delivery (POD) shall be subject to the Unauthorized Increase Charge, specified in section II.G. of the GRSPs.

## F. DIRECT ASSIGNMENT FACILITIES

BPA-TS shall collect the capital and related costs of a Direct Assignment Facility under the Advance Funding (AF) rate or the Use-of-Facilities (UFT) rate. Other associated costs, including but not limited to operations, maintenance, and general plant costs, also shall be recovered from the Transmission Customer under an applicable rate schedule.

## G. INCREMENTAL COST RATES

The rates specified in section II. are applicable to service over available transmission capacity. Customers requesting new or increased firm service that would require BPA-TS to construct new facilities or upgrades to alleviate a capacity constraint may be subject to incremental cost rates for such service if incremental cost is higher than embedded cost. Incremental cost rates would be developed pursuant to section 7(i) of the Northwest Power Act.

#### H. RATE ADJUSTMENT DUE TO FERC ORDER UNDER FPA § 212

Customers taking service under this rate schedule are subject to the Rate Adjustment Due to FERC Order under FPA § 212, specified in section II.D. of the GRSPs.

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# UFT-12 USE-OF-FACILITIES TRANSMISSION RATE

## SECTION I. AVAILABILITY

This schedule supersedes Schedule UFT-10 unless otherwise provided in the agreement, and is available for firm transmission over specified Federal Columbia River Transmission System (FCRTS) facilities. Service under this schedule is subject to BPA-TS's General Rate Schedule Provisions (GRSPs).

#### SECTION II. RATE

The monthly charge per kilowatt of Transmission Demand/capacity reservations specified in the agreement shall be one-twelfth of the annual cost of capacity of the specified facilities divided by the sum of Transmission Demands/capacity reservations (in kilowatts) using such facilities. Such annual cost shall be determined in accordance with section III.

#### SECTION III. DETERMINATION OF TRANSMISSION RATE

- A. From time to time, but not more often than once a year, BPA-TS shall determine the following data for the facilities that have been constructed or otherwise acquired by BPA-TS and that are used to transmit electric power:
  - 1. The annual cost of the specified FCRTS facilities, as determined from the capital cost of such facilities and annual cost ratios developed from the Federal Columbia River Power System financial statement, including interest and amortization, operation and maintenance, administrative and general, and general plant costs.

The annual cost per kilowatt of facilities listed in the agreement that are owned by another entity and used by BPA-TS for making deliveries to the transferee shall be determined from the costs specified in the agreement between BPA-TS and such other entity.

- 2. The yearly noncoincident peak demands of all users of such facilities or other reasonable measurement of the facilities' peak use.
- B. The monthly charge per kilowatt of billing demand shall be one-twelfth of the sum of the annual cost of the FCRTS facilities used divided by the sum of Transmission
   Demands/capacity reservations. The annual cost per kilowatt of
   Transmission Demand/capacity reservation for a facility constructed or otherwise
   acquired by BPA-TS shall be determined in accordance with the following formula:

A D

Where:

- A = The annual cost of such facility as determined in accordance with A.1. above.
- D = The sum of the yearly noncoincident demands on the facility as determined in accordance with A.2. above.

For facilities used solely by one customer, BPA-TS may charge a monthly amount equal to the annual cost of such sole-use facilities, determined in accordance with section III.A.1., divided by 12.

For facilities used by more than one customer, BPA-TS may charge a monthly amount equal to the annual cost of such facilities prorated based on relative use of the facilities, divided by 12.

## SECTION IV. DETERMINATION OF BILLING FACTORS

Unless otherwise stated in the agreement, the Billing Factor shall be the largest of:

- A. The Transmission Demand/capacity reservation in kilowatts specified in the agreement;
- B. The highest hourly Measured or Scheduled Demand for the month; or
- C. The Ratchet Demand.

## SECTION V. ADJUSTMENTS, CHARGES, AND OTHER RATE PROVISIONS

#### A. ANCILLARY SERVICES

Ancillary services that are required to support UFT transmission service are available under the ACS rate schedule.

## **B.** FAILURE TO COMPLY PENALTY

Customers taking service under this rate schedule are subject to the Failure to Comply Penalty Charge, specified in section II.B. of the GRSPs.

## C. POWER FACTOR PENALTY CHARGE

Customers taking service under this rate schedule are subject to the Power Factor Penalty Charge, specified in section II.C. of the GRSPs.

# AF-12 ADVANCE FUNDING RATE

#### SECTION I. AVAILABILITY

This schedule supersedes Schedule AF-10 and is available to customers that execute an agreement that provides for BPA-TS to collect capital and related costs through advance funding or other financial arrangement for specified BPA-owned Federal Columbia River Transmission System (FCRTS) facilities used for:

- A. Interconnection or integration of resources and loads to the FCRTS;
- B. Upgrades, replacements, or reinforcements of the FCRTS for transmission service; or
- C. Other transmission service arrangements, as determined by BPA-TS.

Service under this schedule is subject to BPA-TS's General Rate Schedule Provisions (GRSPs).

#### SECTION II. CHARGE

The charge is:

- A. The sum of the actual capital and related costs for specified FCRTS facilities, as provided in the agreement. Such actual capital and related costs include, but are not limited to, costs of design, materials, construction, overhead, spare parts, and all incidental costs necessary to provide service as identified in the agreement; or
- B. An advance payment equal to the sum of the capital and related costs for specified FCRTS facilities, as provided in an agreement. A credit for some or all of the amount advanced will be applied against charges for transmission service, as provided in the agreement. The charges for transmission service shall be at the rate for the applicable transmission service.

#### SECTION III. PAYMENT

#### A. ADVANCE PAYMENT

Payment to BPA-TS shall be specified in the agreement as either:

- 1. A lump sum advance payment;
- 2. Advance payments pursuant to a schedule of progress payments; or

3. Other payment arrangement, as determined by BPA-TS.

Such advance payment or payments shall be based on an estimate of the capital and related costs for the specified FCRTS facilities as provided in the agreement.

## **B.** ADJUSTMENT TO ADVANCE PAYMENT

For charges under section II.A., BPA-TS shall determine the actual capital and related costs of the specified FCRTS facilities as soon as practicable after the date of commercial operation, as determined by BPA-TS. The customer will either receive a refund from BPA-TS or be billed for additional payment for the difference between the advance payment and the actual capital and related costs.

## TGT-12 TOWNSEND-GARRISON TRANSMISSION RATE

## SECTION I. AVAILABILITY

This schedule supersedes Schedule TGT-10 and is available to Companies that are parties to the Montana Intertie Agreement (Contract No. DE-MS79-81BP90210, as amended), which provides for firm transmission over BPA's section (Garrison to Townsend) of the Montana Intertie. Service under this schedule is subject to BPA-TS's General Rate Schedule Provisions (GRSPs).

#### SECTION II. RATE

The monthly charge shall be one-twelfth of the sum of the annual charges listed below, as applicable and as specified in the agreements for firm transmission. The Townsend-Garrison 500-kV lines and associated terminal, line compensation, and communication facilities are a separately identified portion of the Federal Columbia River Transmission System. Annual revenues plus credits for government use should equal annual costs of the facilities, but in any given year there may be either a surplus or a deficit. Such surpluses or deficits for any year shall be accounted for in the computation of annual costs for succeeding years. Revenue requirements for firm transmission use will be decreased by any revenues received from non-firm use and credits for all government use. The general methodology for determining the firm rate is to divide the revenue requirement by the total firm capacity requirements. Therefore, the higher the total capacity requirements, the lower will be the unit rate.

If BPA provides firm transmission service in its section of the Montana [Eastern] Intertie in exchange for firm transmission service in a customer's section of the Montana Intertie, the payment by BPA for such transmission services provided by such customer will be made in the form of a credit in the calculation of the Intertie Charge for such customer. During an estimated 1- to 3-year period following the commercial operation of the third generating unit at the Colstrip Thermal Generating Plant at Colstrip, Montana, the capability of the Federal Transmission System west of Garrison Substation may be different from the long-term situation. It may not be possible to complete the extension of the 500-kV portion of the Federal Transmission System to Garrison by such commercial operation date. In such event, the 500/230 kV transformer will be an essential extension of the Townsend-Garrison Intertie facilities, and the annual costs of such transformer will be included in the calculation of the Intertie Charge.

However, starting 1 month after extension to Garrison of the 500-kV portion of the Federal Transmission System, the annual costs of such transformer will no longer be included in the calculation of the Intertie Charge.

#### A. NON-FIRM TRANSMISSION CHARGE:

This charge will be filed as a separate rate schedule, the Eastern intertie (IE) rate.

## **B.** INTERTIE CHARGE FOR FIRM TRANSMISSION SERVICE:

Intertie Charge =  $[((TAC/12)-NFR) \times \frac{(CR-EC)}{TCR}]$ 

#### SECTION III. DEFINITIONS

- A. TAC = Total Annual Costs of facilities associated with the Townsend-Garrison 500-kV Transmission line including terminals, and prior to extension of the 500-kV portion of the Federal Transmission System to Garrison, the 500/230 kV transformer at Garrison. Such annual costs are the total of: (1) interest and amortization of associated Federal investment and the appropriate allocation of general plant costs; (2) operation and maintenance costs; (3) allowance for BPA's general administrative costs that are appropriately allocable to such facilities, and (4) payments made pursuant to section 7(m) of Public Law 96-501 with respect to these facilities. Total Annual Costs shall be adjusted to reflect reductions to unpaid total costs as a result of any amounts received, under agreements for firm transmission service over the Montana Intertie, by BPA on account of any reduction in Transmission Demand, termination, or partial termination of any such agreement or otherwise to compensate BPA for the unamortized investment, annual cost, removal, salvage, or other cost related to such facilities.
- B. NFR = Non-firm Revenues, which are equal to (1) the product of the Non-firm Transmission Charge described in II.A above, and the total non-firm energy transmitted over the Townsend Garrison line segment under such charge during such month; plus (2) revenue received by BPA under any other rate schedules for non-firm transmission service in either direction over the Townsend-Garrison line segment during such month.
- C. CR = Capacity Requirement of a customer on the Townsend-Garrison 500-kV transmission facilities as specified in its firm transmission agreement.
- D. TCR = Total Capacity Requirement on the Townsend-Garrison 500-kV transmission facilities as calculated by adding (1) the sum of all Capacity Requirements (CR) specified in transmission agreements described in section I; and (2) BPA's firm capacity requirement. BPA's firm capacity requirement shall be no less than the total of the amounts, if any, specified in firm transmission agreements for use of the Montana Intertie.
- E. EC = Exchange Credit for each customer, which is the product of (1) the ratio of investment in the Townsend-Broadview 500-kV transmission line to the investment in the Townsend-Garrison 500-kV transmission line; and (2) the capacity BPA obtains in the Townsend-Broadview 500-kV transmission line through exchange with such customer. If no exchange is in effect with a customer, the value of EC for such customer shall be zero.

# IE-12 EASTERN INTERTIE RATE

## SECTION I. AVAILABILITY

This schedule supersedes IE-10 and is available to Companies that are parties to the Montana Intertie Agreement (Contract No. DE-MS79-81BP90210, as amended), for non-firm transmission service on the portion of Eastern Intertie capacity above BPA's firm transmission rights. Service under this schedule is subject to BPA-TS's General Rate Schedule Provisions (GRSPs).

#### SECTION II. RATE

The rate shall not exceed 1.13 mills per kilowatthour.

#### SECTION III. BILLING FACTORS

The Billing Factor shall be the scheduled kilowatthours, unless otherwise specified in the agreement.

#### SECTION IV. ADJUSTMENTS, CHARGES, AND OTHER RATE PROVISIONS

#### A. ANCILLARY SERVICES

Ancillary services that may be required to support IE transmission service are available under the ACS rate schedule.

#### **B.** FAILURE TO COMPLY PENALTY

Customers taking service under this rate schedule are subject to the Failure to Comply Penalty Charge, specified in section II.B. of the GRSPs.

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# ACS-12 ANCILLARY AND CONTROL AREA SERVICES RATES

## SECTION I. AVAILABILITY

This schedule supersedes Schedule ACS-10. It is available to all Transmission Customers taking service under the Open Access Transmission Tariff and other contractual arrangements. This schedule is available also for transmission service of a similar nature that may be ordered by the Federal Energy Regulatory Commission (FERC) pursuant to sections 211 and 212 of the Federal Power Act (16 U.S.C. §§ 824j and 824k). Service under this schedule is subject to BPA-TS's General Rate Schedule Provisions (GRSPs).

#### A. ANCILLARY SERVICES

Ancillary Services are needed with transmission service to maintain reliability within and among the Control Areas affected by the transmission service. The Transmission Provider is required to provide, and the Transmission Customer is required to purchase, the following Ancillary Services: (a) Scheduling, System Control, and Dispatch, and (b) Reactive Supply and Voltage Control from Generation Sources.

In addition, the Transmission Provider is required to offer to provide the following Ancillary Services only to the Transmission Customer serving load within the Transmission Provider's Control Area: (a) Regulation and Frequency Response, and (b) Energy Imbalance. The Transmission Customer serving load within the Transmission Provider's Control Area is required to acquire these Ancillary Services, whether from the Transmission Provider, from a third party, or by self-supply.

The Transmission Provider is also required to offer to provide (a) Operating Reserve – Spinning and (b) Operating Reserve – Supplemental to the Transmission Customer in accordance with applicable NERC, WECC, and NWPP standards. The Transmission Customer taking these services in the Transmission Provider's Control Area is required to acquire these Ancillary Services, whether from the Transmission Provider, from a third party, or by self-supply in accordance with applicable NERC, WECC, and NWPP standards.

The Transmission Customer may not decline the Transmission Provider's offer of Ancillary Services unless it demonstrates that it has acquired the Ancillary Services from another source. The Transmission Customer must list in its Application which Ancillary Services it will purchase from the Transmission Provider.

#### Ancillary Services available under this rate schedule are:

- 1. Scheduling, System Control, and Dispatch Service
- 2. Reactive Supply and Voltage Control from Generation Sources Service
- 3. Regulation and Frequency Response Service

- 4. Energy Imbalance Service
- 5. Operating Reserve Spinning Reserve Service
- 6. Operating Reserve Supplemental Reserve Service

## **B. CONTROL AREA SERVICES**

Control Area Services are available to meet the Reliability Obligations of a party with resources or loads in the BPA Control Area. A party that is not satisfying all of its Reliability Obligations through the purchase or self-provision of Ancillary Services must purchase Control Area Services to meet its Reliability Obligations. Control Area Services are also available to parties with resources or loads in the BPA Control Area that have Reliability Obligations, but do not have a transmission agreement with BPA. Reliability Obligations for resources or loads in the BPA Control Area shall be determined consistent with the applicable NERC, WECC, and NWPP standards.

#### Control Area Services available under this rate schedule are:

- 1. Regulation and Frequency Response Service
- 2. Generation Imbalance Service
- 3. Operating Reserve Spinning Reserve Service
- 4. Operating Reserve Supplemental Reserve Service
- 5. Variable Energy Resource Balancing Service
- 6. Dispatchable Energy Resource Balancing Service

## SECTION II. ANCILLARY SERVICE RATES

#### A. SCHEDULING, SYSTEM CONTROL, AND DISPATCH SERVICE

The rates below apply to Transmission Customers taking Scheduling, System Control, and Dispatch Service from BPA-TS. These rates apply to both firm and non-firm transmission service. Transmission arrangements on the Network, on the Southern Intertie, and on the Montana Intertie are each charged separately for Scheduling, System Control, and Dispatch Service.

#### 1. RATES

a. Long-Term Firm PTP Transmission Service and NT Service

The rate shall not exceed \$0.203 per kilowatt per month.

#### b. Short-Term Firm and Non-Firm PTP Transmission Service

For each reservation, the rates shall not exceed:

#### (1) Monthly, Weekly, and Daily Firm and Non-Firm Service

- (a) Days 1 through 5 \$0.010 per kilowatt per day
- (b) Day 6 and beyond \$0.006 per kilowatt per day

#### (2) Hourly Firm and Non-Firm Service

The rate shall not exceed 0.59 mills per kilowatthour.

#### 2. BILLING FACTORS

#### a. **Point-To-Point Transmission Service**

For Transmission Customers taking Point-to-Point Transmission Service (PTP, IS, and IM rates), the Billing Factor for each rate specified in section 1.a., 1.b.(1), and for the Hourly Firm PTP Transmission Service rate specified in 1.b.(2) shall be the Reserved Capacity, which is the greater of:

- (1) the sum of the capacity reservations at the Point(s) of Receipt, or
- (2) the sum of the capacity reservations at the Point(s) of Delivery.

The Reserved Capacity for Firm PTP Transmission Service shall not be adjusted for any Short-Distance Discounts or for any modifications on a

non-firm basis in determining the Scheduling, System Control and Dispatch Service Billing Factor.

The Billing Factor for the rate specified in section 1.b.(2) for Hourly Non-Firm Service shall be the Reserved Capacity, and the following shall apply:

- (1) If the need for Curtailment is caused by conditions on the Federal Columbia River Transmission System, the Billing Factor will be as follows:
  - (a) If Hourly Non-Firm PTP Transmission Service is Curtailed or Interrupted before the close of the hourly non-firm scheduling window, the Billing Factor will be the Reserved Capacity minus the curtailed capacity.
  - (b) If Hourly Non-Firm PTP Transmission Service is Curtailed or Interrupted after the close of the hourly non-firm scheduling window, the Billing Factor will be the Transmission Customer's actual schedule in the hour.
- (2) If the need for Curtailment is caused by conditions on another transmission provider's transmission system, the Billing Factor will be the Reserved Capacity.

These Billing Factors apply to all PTP transmission service under the Open Access Transmission Tariff regardless of whether the Transmission Customer actually uses (schedules) the transmission.

## b. Network Integration Transmission Service

For Transmission Customers taking Network Integration Transmission Service, the Billing Factor for the rate specified in section 1.a. shall equal the NT Base Charge Billing Factor determined pursuant to section III.A. of the Network Integration Rate Schedule (NT-12).

## c. Adjustment for Customers Subject to the Unauthorized Increase Charge (UIC)

For Transmission Customers taking Point-to-Point Transmission Service (PTP, IS, and IM rate schedules) that are subject to a UIC in a billing month, the Billing Factor for the billing month shall be the Billing Factor calculated above plus the UIC Billing Factor calculated under section II.G.2.a. of the GRSPs.

# B. REACTIVE SUPPLY AND VOLTAGE CONTROL FROM GENERATION SOURCES SERVICE

The rates below apply to Transmission Customers taking Reactive Supply and Voltage Control from Generation Sources (GSR) Service from BPA-TS. These rates apply to both firm and non-firm transmission service. Transmission arrangements on the Network, on the Southern Intertie, and on the Montana Intertie are each charged separately for Reactive Supply and Voltage Control from Generation Sources Service.

## 1. RATES

The rates for GSR Service will be set on a quarterly basis, beginning October 2011, according to the formulas below. Rates for Long-Term PTP and NT Service and for Short-Term Monthly, Weekly and Daily Service (sections a. and b.(1), below) shall be calculated to three decimal places. Rates for Hourly Service (section b.(2), below) shall be calculated to two decimal places.

## a. Long-Term Firm PTP Transmission Service and NT Service

The rate, in dollars per kilowatt per month (\$/kW/mo), shall not exceed:

$$\frac{4(N_{q} + U_{q-1} + Z_{q-1})}{bd - 4S_{q}}$$

Where:

- bd = 470,532 MW-mo = Average of forecasted FY 2010 and FY 2011 GSR Service billing determinants. Each annual billing determinant is the sum of the 12 monthly billing determinants.
- N<sub>q</sub> = Non-Federal GSR cost to be paid by BPA-TS under a FERC-approved rate during the relevant quarter, as anticipated prior to the quarter. (\$)
- $U_{q-1}$  = Payments of non-Federal GSR cost made in the preceding quarter(s) that were not included in the effective rate for the preceding quarter(s). Any refunds received by BPA-TS would reduce this cost.  $U_{q-1}$  is a true-up for any deviation of non-Federal GSR costs from the amount used in a previous quarter's GSR rate calculation. For calculating the GSR rate effective October 1, 2011,  $U_{q-1}$  is zero. (\$)

- S<sub>q</sub> = Reduction in effective billing demand for approved self-supply of reactive during the relevant quarter, as anticipated prior to the quarter. (MW-mo)
- $Z_{q-1}$  = A dollar true-up for under- or overstatement of reactive self-supply in rate calculations for the preceding quarter(s). For calculating the GSR rate effective October 1, 2011,  $Z_{q-1}$  is zero.  $Z_{q-1}$  will be calculated by multiplying the under- or overstated megawatt amount of self-supply by the GSR rate that was effective during the quarter of self-supply deviation. (\$)

"Relevant quarter" refers to the 3-month period for which the rate is being determined.

## b. Short-Term Firm and Non-Firm PTP Transmission Service

## (1) Monthly, Weekly, and Daily Firm and Non-firm Service

For each reservation, the rates shall not exceed:

## (a) Days 1 through 5 (\$/kW/day)

Long-Term Service Rate\* 12 months52 weeks \* 5 days

## (b) Day 6 and beyond (\$/kW/day)

Long-Term Service Rate \*  $\frac{12 \text{ months}}{52 \text{ weeks * 7 days}}$ 

## (2) Hourly Firm and Non-Firm Service (mills/kilowatthour)

The rate shall not exceed:

Long-Term Service Rate\* 12 months52 weeks \* 5 days \* 16 hours

## Where:

The "Long-Term Service Rate" specified in the formulas in sections 1.b.(1)(a) and (b), and 1.b.(2), above, is the rate determined in section 1.a., Long-Term Firm PTP Transmission Service and NT Service, in \$/kW/mo.

## 2. BILLING FACTORS

#### a. **Point-To-Point Transmission Service**

For Transmission Customers taking Point-to-Point Transmission Service (PTP, IS, and IM rates), the Billing Factor for each rate specified in section 1.a., 1.b.(1) and for Hourly Firm PTP Transmission Service specified in 1.b.(2) shall be the Reserved Capacity, which is the greater of:

- (1) the sum of the capacity reservations at the Point(s) of Receipt, or
- (2) the sum of the capacity reservations at the Point(s) of Delivery.

The Reserved Capacity for Firm PTP Transmission Service shall not be adjusted for any Short-Distance Discount or for any modifications on a non-firm basis in determining the Reactive Supply and Voltage Control from Generation Sources Service Billing Factor.

The Billing Factor for the rate specified in section 1.b.(2) for Hourly Non-Firm Service shall be the Reserved Capacity, and the following shall apply:

- (1) If the need for Curtailment is caused by conditions on the Federal Columbia River Transmission System, the Billing Factor will be as follows:
  - (a) If Hourly Non-Firm PTP Transmission Service is Curtailed or Interrupted before the close of the hourly non-firm scheduling window, the Billing Factor will be the Reserved Capacity minus the curtailed capacity.
  - (b) If Hourly Non-Firm PTP Transmission Service is Curtailed or Interrupted after the close of the hourly non-firm scheduling window, the Billing Factor will be the Transmission Customer's actual schedule in the hour.
- (2) If the need for Curtailment is caused by conditions on another transmission provider's transmission system, the Billing Factor will be the Reserved Capacity.

These Billing Factors apply to all PTP transmission service under the Open Access Transmission Tariff regardless of whether the Transmission Customer actually uses (schedules) the transmission.

## b. Network Integration Transmission Service

For Transmission Customers taking Network Integration Transmission Service, the Billing Factor for the rate specified in section 1.a. shall equal the NT Base Charge Billing Factor determined pursuant to section III.A. of the Network Integration Rate Schedule (NT-12).

## c. Adjustment for Self-Supply

The Billing Factors in sections 2.a. and 2.b. above may be reduced as specified in the Transmission Customer's Service Agreement to the extent the Transmission Customer demonstrates to BPA-TS's satisfaction that it can self-provide Reactive Supply and Voltage Control from Generation Sources Service.

## d. Adjustment for Customers Subject to the Unauthorized Increase Charge (UIC)

For Transmission Customers taking Point-to-Point Transmission Service (PTP, IS, and IM rate schedules) that are subject to a UIC in a billing month, the Billing Factor for the billing month shall be the Billing Factor calculated above plus the UIC Billing Factor calculated under section II.G.2.a. of the GRSPs.

## C. REGULATION AND FREQUENCY RESPONSE SERVICE

The rate below for Regulation and Frequency Response (RFR) Service applies to Transmission Customers serving loads in the BPA Control Area. Regulation and Frequency Response Service provides the generation capability to follow the moment-tomoment variations of loads in the BPA Control Area and maintain the power system frequency at 60 Hz in conformance with NERC and WECC reliability standards.

#### 1. RATE

The rate shall not exceed 0.13 mills per kilowatthour.

## 2. BILLING FACTOR

The Billing Factor is the customer's total load in the BPA Control Area, in kilowatthours.

#### D. ENERGY IMBALANCE SERVICE

The rates below apply to Transmission Customers taking Energy Imbalance Service from BPA-TS. Energy Imbalance Service is taken when there is a difference between scheduled and actual energy delivered to a load in the BPA Control Area during a scheduling period. Accounting for hourly schedules will be on an hourly basis and accounting for intra-hour schedules will be on the same basis as the intra-hour scheduling period.

## 1. RATES

## a. Imbalances Within Deviation Band 1

Deviation Band 1 applies to deviations that are less than or equal to: i)  $\pm 1.5\%$  of the scheduled amount of energy, or ii)  $\pm 2$  MW, whichever is larger in absolute value. BPA-TS will maintain deviation accounts showing the net Energy Imbalance (the sum of positive and negative deviations from schedule for each period) for Heavy Load Hour (HLH) and Light Load Hour (LLH) periods. Return energy may be scheduled at any time during the month to bring the deviation account balances to zero at the end of each month. BPA-TS will approve the hourly schedules of return energy. The customer shall make the arrangements and submit the schedule for the balancing transaction.

The following rates will be applied when a deviation balance remains at the end of the month:

- (i) When the monthly net energy (determined for HLH and LLH periods) taken by the Transmission Customer is greater than the energy scheduled, the charge is BPA's incremental cost based on the applicable average HLH and average LLH incremental cost for the month.
- (ii) When the monthly net energy (determined for HLH and LLH periods) taken by the Transmission Customer is less than the energy scheduled, the credit is BPA's incremental cost based on the applicable average HLH and LLH incremental cost for the month.

## b. Imbalances Within Deviation Band 2

Deviation Band 2 applies to the portion of the deviation i) greater than  $\pm 1.5\%$  of the scheduled amount of energy or  $\pm 2$  MW,

whichever is larger in absolute value, ii) up to and including  $\pm$  7.5% of the scheduled amount of energy or  $\pm$  10 MW, whichever is larger in absolute value.

- (i) When energy taken by the Transmission Customer in a schedule period is greater than the energy scheduled, the charge is 110% of BPA's incremental cost.
- (ii) When energy taken by the Transmission Customer in a schedule period is less than the scheduled amount, the credit is 90% of BPA's incremental cost.

## c. Imbalances Within Deviation Band 3

Deviation Band 3 applies to the portion of the deviation i) greater than  $\pm$  7.5% of the scheduled amount of energy, or ii) greater than  $\pm$  10 MW of the scheduled amount of energy, whichever is larger in absolute value.

- When energy taken by the Transmission Customer in a schedule period is greater than the energy scheduled, the charge is 125% of BPA's highest incremental cost that occurs during that day. The highest daily incremental cost shall be determined separately for HLH and LLH.
- (ii) When energy taken by the Transmission Customer in a schedule period is less than the scheduled amount, the credit is 75% of BPA's lowest incremental cost that occurs during that day. The lowest daily incremental cost shall be determined separately for HLH and LLH.

## 2. OTHER RATE PROVISIONS

#### a. BPA Incremental Cost

BPA's incremental cost will be based on an hourly energy index in the Pacific Northwest. If no adequate hourly index exists, an alternative index will be used. BPA-TS will post the name of the index to be used on the OASIS at least 30 days prior to its use. BPA-TS will not change the index more often than once per year unless BPA-TS determines that the existing index is no longer a reliable price index.

For any hour(s) that the energy index is negative, no credit is given for positive deviations (actual energy delivered is more than scheduled).

## b. Spill Conditions

For any day that the Federal System is in a Spill Condition, no credit is given for negative deviations (actual energy delivered is less than scheduled) for any period of that day.

If the energy index is negative in any hour that the Federal System is in a Spill Condition:

- (i) For negative deviations (energy taken is less than the scheduled energy) within Band 1, no credit will be given.
- (ii) For negative deviations (energy taken is less than the scheduled energy) within Band 2, the charge is the energy index for that hour.
- (iii) For negative deviations (energy taken is less than the scheduled energy) within Band 3, the charge is the energy index for that hour.

#### c. Persistent Deviation

The following penalty charges shall apply to each Persistent Deviation:

- (1) No credit is given when energy taken is less than the scheduled energy.
- (2) When energy taken exceeds the scheduled energy, the charge is the greater of: i) 125% of BPA's highest incremental cost that occurs during that day, or ii) 100 mills per kilowatthour.

If the energy index is negative in any hour(s) in which there is a negative deviation (energy taken is less than the scheduled energy) that BPA-TS determines to be a Persistent Deviation, the charge is the energy index for that hour.

If BPA-TS assesses a persistent deviation penalty charge in any scheduled period for a positive deviation, BPA-TS will not also assess a charge pursuant to Section II.D.1 of this ACS-12 schedule.

#### **Reduction or Waiver of Persistent Deviation Penalty**

BPA-TS, at its sole discretion, may waive all or part of the Persistent Deviation penalty charge if (a) the customer took mitigating action(s) to avoid or limit the Persistent Deviation, including but not limited to changing its schedule to mitigate the magnitude or duration of the deviation, or (b) the Persistent Deviation was caused by extraordinary circumstances.

#### E. OPERATING RESERVE -- SPINNING RESERVE SERVICE

The rates below apply to Transmission Customers taking Operating Reserve – Spinning Reserve Service from BPA-TS and to generators in the BPA Control Area for settlement of energy deliveries. Spinning Reserve Service is needed to serve load immediately in the event of a system contingency. BPA-TS will determine the Transmission Customer's Spinning Reserve Requirement in accordance with applicable NERC, WECC and NWPP standards.

## 1. RATES

## a. Spinning Reserve Service

- For customers that elect to purchase Operating Reserve –Spinning Reserve Service from BPA-TS, the rate shall not exceed 11.20 mills per kilowatthour.
- (ii) For customers that are required to purchase Operating Reserve Spinning Reserve Service from BPA-TS because they defaulted on their self-supply or third-party supply obligations, the rate shall be 12.88 mills per kilowatthour.
- **b.** For energy delivered, the generator shall, as directed by BPA-TS, either:
  - (i) Purchase the energy at the hourly market index price, but not less than zero, applicable at the time of occurrence, or
  - (ii) Return the energy at the times specified by BPA-TS.

## 2. BILLING FACTORS

- a. The Billing Factor for the rates specified in section 1.a. is the Transmission Customer's Spinning Reserve Requirement determined in accordance with applicable WECC and NWPP standards. BPA-TS will post on its OASIS Web site the Spinning Reserve Requirement. If the Federal Energy Regulatory Commission approves a new Spinning Reserve Requirement during the FY 2012-2013 rate period, such Spinning Reserve Requirement will go into effect on the effective date set by FERC, and BPA will update the Spinning Reserve Requirement posted on its OASIS Web site accordingly.
- b. The Billing Factor for energy delivered when Spinning Reserve Service is called upon is the energy delivered, in kilowatthours.

#### F. OPERATING RESERVE – SUPPLEMENTAL RESERVE SERVICE

The rates below apply to Transmission Customers taking Operating Reserve – Supplemental Reserve Service from BPA-TS and to generators in the BPA Control Area for settlement of energy deliveries. Supplemental Reserve Service is needed to serve load immediately in the event of a system contingency. BPA-TS will determine the Transmission Customer's Supplemental Reserve Requirement in accordance with applicable NERC, WECC and NWPP standards.

## 1. RATES

## a. Supplemental Reserve Service

- For customers that elect to purchase Operating Reserve--Supplemental Reserve Service Transmission Services, the rate shall not exceed 9.52 mills per kilowatthour.
- (ii) For customers that are required to purchase Operating Reserve --Supplemental Reserve Service from BPA-TS because they defaulted on their self-supply or third-party supply obligations, the rate shall be 10.95 mills per kilowatthour.
- **b.** For energy delivered, the Transmission Customer (for interruptible imports only) or the generator shall, as directed by BPA-TS, either:
  - (i) Purchase the energy at the hourly market index price, but not less than zero, applicable at the time of occurrence, or
  - (ii) Return the energy at the times specified by BPA-TS.

The Transmission Customer shall be responsible for the settlement of delivered energy associated with interruptible imports. The generator shall be responsible for the settlement of delivered energy associated with generation in the BPA Control Area.

## 2. BILLING FACTORS

a. The Billing Factor for the rates specified in section 1.a. is the Transmission Customer's Supplemental Reserve Requirement determined in accordance with applicable WECC and NWPP standards. BPA-TS will post on its OASIS Web site the Supplemental Reserve Requirement. If the Federal Energy Regulatory Commission approves a new Supplemental Reserve Requirement during the FY 2012-2013 rate period, such Supplemental Reserve Requirement will go into effect on the effective date set by FERC, and BPA will update the Supplemental Reserve Requirement posted on its OASIS Web site accordingly. b. The Billing Factor for energy delivered when Supplemental Reserve Service is called upon is the energy delivered, in kilowatthours.

## SECTION III. CONTROL AREA SERVICE RATES

#### A. REGULATION AND FREQUENCY RESPONSE SERVICE

The rate below applies to all loads in the BPA Control Area that are receiving Regulation and Frequency Response Service from the BPA Control Area, and such Regulation and Frequency Response Service is not provided for under a BPA-TS transmission agreement. Regulation and Frequency Response Service provides the generation capability to follow the moment-to-moment variations of loads in the BPA Control Area and maintain the power system frequency at 60 Hz in conformance with NERC and WECC reliability standards.

#### 1. RATE

The rate shall not exceed 0.13 mills per kilowatthour.

## 2. BILLING FACTOR

The Billing Factor is the customer's total load in the BPA Control Area, in kilowatthours.

#### **B.** GENERATION IMBALANCE SERVICE

The rates below apply to generation resources in the BPA Control Area if Generation Imbalance Service is provided for in an interconnection agreement or other arrangement. Generation Imbalance Service is taken when there is a difference between scheduled and actual energy delivered from generation resources in the BPA Control Area during a scheduling period. Accounting for hourly schedules will be on an hourly basis and accounting for intra-hour schedules will be on the same basis as the intra-hour scheduling period.

#### 1. RATES

#### a. Imbalances Within Deviation Band 1

Deviation Band 1 applies to deviations that are less than or equal to: i)  $\pm 1.5\%$  of the scheduled amount of energy, or ii)  $\pm 2$  MW, whichever is larger in absolute value. BPA-TS will maintain deviation accounts showing the net Generation Imbalance (the sum of positive and negative deviations from schedule for each period) for Heavy Load Hour (HLH) and Light Load Hour (LLH) periods. Return energy may be scheduled at any time during the month to bring the deviation account balances to zero at the end of each month. BPA-TS will approve the hourly schedules of return energy. The customer shall make the arrangements and submit the schedule for the balancing transaction.

The following rates will be applied when a deviation balance remains at the end of the month:

- When the monthly net energy (determined for HLH and LLH periods) delivered from a generation resource is less than the energy scheduled, the charge is BPA's incremental cost based on the applicable average HLH and average LLH incremental cost for the month.
- (ii) When the monthly net energy (determined for HLH and LLH periods) delivered from a generation resource is greater than the energy scheduled, the credit is BPA's incremental cost based on the applicable average HLH and LLH incremental cost for the month.

#### b. Imbalances Within Deviation Band 2

Deviation Band 2 applies to the portion of the deviation i) greater than  $\pm 1.5\%$  of the scheduled amount of energy or  $\pm 2$  MW, whichever is larger in absolute value, ii) up to and including  $\pm 7.5\%$  of the scheduled amount of energy or  $\pm 10$  MW, whichever is larger in absolute value.

- (i) When energy delivered in a schedule period from the generation resource is less than the energy scheduled, the charge is 110% of BPA's incremental cost.
- When energy delivered in a schedule period from the generation resource is greater than the scheduled amount, the credit is 90% of BPA's incremental cost.

#### c. Imbalances Within Deviation Band 3

Deviation Band 3 applies to the portion of the deviation i) greater than  $\pm$  7.5% of the scheduled amount of energy, or ii) greater than  $\pm$  10 MW of the scheduled amount of energy, whichever is larger in absolute value.

- When energy delivered in a schedule period from the generation resource is less than the energy scheduled, the charge is 125% of BPA's highest incremental cost that occurs during that day. The highest daily incremental cost shall be determined separately for HLH and LLH.
- (ii) When energy delivered in a schedule period from the generation resource is greater than the scheduled amount, the credit is 75% of BPA's lowest incremental cost that occurs during that day. The lowest daily incremental cost shall be determined separately for HLH and LLH.

## 2. OTHER RATE PROVISIONS

#### a. BPA Incremental Cost

BPA's incremental cost will be based on an hourly energy index in the Pacific Northwest. If no adequate hourly index exists, an alternative index will be used. BPA-TS will post the name of the index to be used on the OASIS at least 30 days prior to its use. BPA-TS will not change the index more often than once per year unless BPA-TS determines that the existing index is no longer a reliable price index.

For any hour(s) that the energy index is negative, no credit is given for positive deviations (actual generation less than scheduled).

#### b. Spill Conditions

For any day that the Federal System is in a Spill Condition, no credit is given for negative deviations (actual generation greater than scheduled) for any period of that day.

If the energy index is negative in any hour that the Federal System is in a Spill Condition:

- (i) For negative deviations (actual generation greater than scheduled) within Band 1, no credit will be given.
- (ii) For negative deviations (actual generation greater than scheduled) within Band 2, the charge is the energy index for that hour.
- (iii) For negative deviations (actual generation greater than scheduled) within Band 3, the charge is the energy index for that hour.

#### c. Persistent Deviation

The following penalty charges shall apply to each Persistent Deviation:

No credit is given for negative deviations (actual generation greater than scheduled) for any hour(s) that the imbalance is a Persistent Deviation (as determined by BPA-TS).

For positive deviations (actual generation less than scheduled) which are determined by BPA-TS to be Persistent Deviations, the charge is the greater of: i) 125% of BPA's highest incremental cost that occurs during that day, or ii) 100 mills per kilowatthour.

If the energy index is negative in any hour(s) in which there is a negative deviation (actual generation greater than scheduled) that BPA-TS determines to be a Persistent Deviation, the charge is the energy index for that hour.

If BPA-TS assesses a Persistent Deviation Penalty charge in any scheduled period for a positive deviation, BPA-TS will not also assess a charge pursuant to Section III.B.1 of this ACS-12 schedule.

For variable energy resources (wind and solar resources), BPA-TS will remove specific scheduled periods for billing purposes from a persistent deviation event when the deviation is equal to or less than the deviation that would result from 30-minute persistence scheduling for those scheduled periods.

New generation resources undergoing testing before commercial operation are exempt from the Persistent Deviation penalty charge for up to 90 days. Participants in BPA's Committed Intra-Hour Scheduling Pilot are exempt from the Persistent Deviation penalty charge.

## **Reduction or Waiver of Persistent Deviation Penalty**

BPA-TS, at its sole discretion, may waive all or part of the Persistent Deviation penalty charge if (a) the customer took mitigating action(s) to avoid or limit the Persistent Deviation, including but not limited to changing its schedule to mitigate the magnitude or duration of the deviation, or (b) the Persistent Deviation was caused by extraordinary circumstances.

## d. Exemptions from Deviation Band 3

The following resources are not subject to Deviation Band 3:

- (i) wind resources;
- (ii) solar resources; and
- (ii) new generation resources undergoing testing before commercial operation for up to 90 days.

All such deviations greater than  $\pm 1.5\%$  or  $\pm 2$  MW will be charged consistent with section 1.b., Imbalances Within Deviation Band 2.

#### C. OPERATING RESERVE – SPINNING RESERVE SERVICE

Operating Reserve – Spinning Reserve Service must be purchased by a party with generation in the BPA Control Area that is receiving this service from BPA-TS, and such Spinning Reserve Service is not provided for under a BPA-TS transmission agreement. Service is being received if there are no other qualifying resources providing this required reserve service in conformance with NERC, WECC and NWPP standards. BPA-TS will determine the Transmission Customer's Spinning Reserve Requirement in accordance with applicable NERC, WECC and NWPP standards.

## 1. RATES

## a. Spinning Reserve Service

- (i) For customers that elect to purchase Operating Reserve--Spinning Reserves from BPA-TS, the rate shall not exceed 11.20 mills per kilowatthour.
- (ii) For customers that are required to purchase Operating Reserve--Spinning Reserve Service from BPA-TS because they defaulted on their self-supply or third-party supply obligations, the rate shall be 12.88 mills per kilowatthour.
- **b.** For energy delivered, the customer shall, as directed by BPA-TS, either:
  - (i) Purchase the energy at the hourly market index price, but not less than zero, applicable at the time of occurrence, or
  - (ii) Return the energy at the times specified by BPA-TS.

## 2. BILLING FACTORS

- a. The Billing Factor for the rates specified in section 1.a. is the Spinning Reserve Requirement determined in accordance with applicable WECC and NWPP standards. BPA-TS will post on its OASIS Web site the Spinning Reserve Requirement. If the Federal Energy Regulatory Commission approves a new Spinning Reserve Requirement during the FY 2012-2013 rate period, such Spinning Reserve Requirement will go into effect on the effective date set by FERC, and BPA will update the Spinning Reserves Requirement posted on its OASIS Web site accordingly.
- b. The Billing Factor for energy delivered when Spinning Reserve Service is called upon is the energy delivered, in kilowatthours.

#### D. OPERATING RESERVE – SUPPLEMENTAL RESERVE SERVICE

Operating Reserve – Supplemental Reserve Service must be purchased by a party with generation in the BPA Control Area that is receiving this service from BPA-TS, and such Supplemental Reserve Service is not provided for under a BPA-TS transmission agreement. Service is being received if there are no other qualifying resources providing this required reserve service in conformance with NERC, WECC and NWPP standards. BPA-TS will determine the Transmission Customer's Supplemental Reserve Requirement in accordance with applicable NERC, WECC and NWPP standards.

## 1. RATES

#### a. Supplemental Reserve Service

- For customers that elect to purchase Operating Reserve--Supplemental Reserve Service from BPA-TS, the rate shall not exceed 9.52 mills per kilowatthour.
- (ii) For customers that are required to purchase Operating Reserve--Supplemental Reserve Service from BPA-TS because they defaulted on their self-supply or third-party supply obligations, the rate shall be 10.95 mills per kilowatthour.
- **b.** For energy delivered, the customer shall, as directed by BPA-TS, either:
  - (i) Purchase the energy at the hourly market index price, but not less than zero, applicable at the time of occurrence, or
  - (ii) Return the energy at the times specified by BPA-TS.

## 2. BILLING FACTORS

- a. The Billing Factor for the rates specified in section 1.a. is the Supplemental Reserve Requirement determined in accordance with applicable WECC and NWPP standards. BPA-TS will post on its OASIS Web site the Supplemental Reserve Requirement. If the Federal Energy Regulatory Commission approves a new Supplemental Reserve Requirement during the FY 2012-2013 rate period, such Supplemental Reserve Requirement will go into effect on the effective date set by FERC, and BPA will update the Supplemental Reserves Requirement posted on its OASIS Web site accordingly
- b. The Billing Factor for energy delivered when Supplemental Reserve Service is called upon is the energy delivered, in kilowatthours.

#### E. VARIABLE ENERGY RESOURCE BALANCING SERVICE

#### 1. APPLICABILITY

The rates contained in this rate schedule apply to all wind and solar generating facilities of 200 kW nameplate rated capacity or greater in the BPA Control Area except as provided in section 2(c) of this rate schedule.

<u>Variable Energy Resource Balancing Service</u> is comprised of three components: regulating reserves (which compensate for moment-to-moment differences between generation and load), following reserves (which compensate for larger differences occurring over longer periods of time during the hour), and imbalance reserves (which compensate for differences between the generator's schedule and the actual generation during an hour). Variable Energy Resource Balancing Service is required to help maintain the power system frequency at 60 Hz and to conform to NERC and WECC reliability standards.

<u>Provisional Variable Energy Resource Balancing Service</u> ("Provisional Balancing Service") cannot be requested, but is offered to customers integrating variable energy resources in the BPA Control Area that: (1) have elected to self-supply in accordance with section 2(c) but are unable to continue self-supplying one or more components to Variable Energy Resource Balancing Service; or (2) have a projected interconnection date after FY 2013, but interconnect during the FY 2012-2013 rate period.

Variable Energy Resource Balancing Service Supplemental Service ("Supplemental Service") is an optional monthly service. BPA offers this service only upon request to Variable Energy Resource Balancing Service customers in accordance with BPA business practices. Purchase of this Supplemental Service augments balancing reserves available to the Customer to mitigate the effects of DSO 216 curtailments on variable energy resource schedules.

The rates that apply to participants in BPA's <u>Committed Intra-Hour Scheduling</u> <u>Pilot</u> are also included in this rate schedule.

# 2. VARIABLE ENERGY RESOURCE BALANCING SERVICE FOR WIND RESOURCES

#### (a) **RATES**

Except as provided in section 7, Formula Rate Adjustments, below, the total rate for Variable Energy Resource Balancing Service for wind resources shall not exceed \$1.23 per kilowatt per month and each component of the rate shall not exceed the following:

(i)	Regulating Reserves	\$0.08 per kilowatt per month
(ii)	Following Reserves	\$0.37 per kilowatt per month
(iii)	Imbalance Reserves	\$0.78 per kilowatt per month

#### (b) **BILLING FACTOR**

The Billing Factor is as follows:

- (i) For each wind plant, or phase of a wind plant, that has completed installation of all units no later than the 15th of the month prior to the billing month the billing factor in kW will be the greater of the maximum one-hour generation or the nameplate of the plant. A unit has completed installation when it has generated and delivered power to the BPA system.
- (ii) For each wind plant, or phase of a wind plant, for which some but not all units have been installed by the 15th day of the month prior to the billing month, the billing factor will be the maximum measured hourly output of the plant through the 15th day of the prior month in kW.

#### (c) **EXCEPTIONS**

- (i) The rates in section 2(a) above will not apply to a variable energy resource, or portion of a variable energy resource, that, in BPA's determination, has put in place, tested, and successfully implemented in conformance to the criteria specified in BPA-TS business practices, no later than the 15th day of the month prior to the billing month, the dynamic transfer of plant output out of BPA's Balancing Authority Area to another Balancing Authority Area.
- (ii) Any component of the rates in section 2(a) above will not apply to a variable energy resource, or portion of a variable energy resource, that, in BPA's determination, has put in place, tested, and successfully implemented in conformance to criteria specified in BPA-TS business practices, no later than the 15th day of the month prior to the billing month, self-supply of that component of balancing service, including by contractual arrangements for thirdparty supply.

#### 3. PROVISIONAL BALANCING SERVICE

#### (a) **RATES**

The total rate for Provisional Balancing Service shall not exceed the total rate specified in section 2(a) above, as adjusted pursuant to section 7, Formula Rate Adjustments.

#### (b) **BILLING FACTOR**

See section 2(b) above.

#### (c) **EXCEPTIONS**

- (i) <u>Dynamic Transfer Capability Provision</u>: If BPA recalls an award of dynamic transfer capability from a customer that elected to selfsupply one or more components of Variable Energy Resource Balancing Service on May 1, 2011, the total rate for such customer taking Provisional Balancing Service shall not exceed 70 percent of the total rate specified in section 2(a) above, as adjusted pursuant to section 7, Formula Rate Adjustments.
- (ii) See section 2(c) above.

#### 4. VARIABLE ENERGY RESOURCE BALANCING SERVICE FOR SOLAR RESOURCES

#### (a) **RATES**

The total rate for Variable Energy Resource Balancing Service for solar resources shall not exceed \$0.22 per kilowatt per month and each component of the rate shall not exceed the following:

(i)	Regulating Reserves	\$0.04 per kilowatt per month
(ii)	Following Reserves	\$0.18 per kilowatt per month

#### (b) **BILLING FACTOR**

For each solar plant that has completed installation no later than the 15th of the month prior to the billing month, the billing factor in kW will be the greater of the maximum one-hour generation or the nameplate of the plant. A unit has completed installation when it has generated and delivered power to the BPA system.

#### (c) **EXCEPTIONS**

See section 2(c) above.

#### 5. COMMITTED INTRA-HOUR SCHEDULING PILOT PARTICIPANTS

#### (a) **RATES**

The total rate for Variable Energy Resource Balancing Service for participants in BPA's Committed Intra-Hour Pilot shall not exceed 66 percent the total rate specified in section 2(a) above, as adjusted pursuant to section 7, Formula Rate Adjustments.

#### (b) **BILLING FACTOR**

See section 2(b) above.

#### (c) EXCEPTIONS None

#### 6. SUPPLEMENTAL SERVICE

#### (a) **RATES**

The monthly Supplemental Service rate in \$/MW shall equal:

(Purchase Cost / Imbalance Reserve )

+ Administrative Charge

Where:

- Purchase Cost = The sum of all purchase costs incurred by BPA to supply Supplemental Service for the relevant number of months to customers that commit to take such service, in dollars (\$).
- Imbalance Reserve = The sum of all imbalance reserves purchased by BPA to supply Supplemental Service for the relevant month or months for customers that commit to take such Administrative Charge service in MW-months.

Administrative Charge = \$134 per MW-month

#### (b) **BILLING FACTOR**

The billing factor shall be the monthly amount of reserve that the Supplemental Service customer has contractually committed to purchase or supply.

(c) EXCEPTIONS None.

#### 7. FORMULA RATE ADJUSTMENTS

The Imbalance Reserves rate specified in section 2(a)(iii) above may be adjusted by: (1) Formula Rate I below to recover the costs of replacing Federal balancing reserve capacity that becomes unavailable during the rate period with non-Federal balancing reserve capacity; or (2) Formula Rate II below to increase non-Federal sources of balancing reserve capacity for the imbalance component to Variable Energy Resource Balancing Service.

#### **Public Notification Process for Rate Adjustment:**

<u>Purchases of balancing reserve capacity for a term not longer than two months</u>: BPA-TS will post on its OASIS a notice stating the adjusted rate at least 30 days in advance of the effective date of the adjusted rate.

<u>Purchases of balancing reserve capacity for a term of longer than two months</u>: BPA-TS will provide 15 calendar days advance notice on its OASIS of a public meeting to discuss the proposed purchase of balancing reserve capacity and the expected adjusted rate. Written comments on the proposed purchase will be accepted for 15 calendar days after the public meeting. BPA-TS will notify customers on its OASIS within 30 days of the public meeting of its decisions regarding the purchase and the adjusted Variable Energy Resources Balancing Service rate.

(i) Formula Rate I for Replacement of Federal Balancing Reserve Capacity that Becomes Unavailable

BPA may apply Formula Rate I to adjust the imbalance reserves rate set forth in section 2(a)(iii) of this rate schedule if BPA determines that it can no longer provide the level of balancing reserve capacity for Variable Energy Resource Balancing Service that BPA forecast it could provide for the rate period and BPA purchases non-Federal balancing reserve capacity to replace the unavailable Federal balancing reserve capacity.

#### Formula Rate I:

Adj Imb Rate = Imb rate + (Avg Net Cost / Avg Sales)

Where:

Adj Imb Rate =	The adjusted Imbalance Reserves rate that replaces section 2(a)(iii), in \$/kW/mo.
Imb Rate =	The Imbalance Reserves rate identified in section 2(a)(iii) plus any previous adjustments under this section (Formula Rate I or Formula Rate II), in \$/kW/mo.
Avg Net Cost =	The average, spread over the remaining months of the rate period, of the net costs associated with acquiring replacement balancing reserve capacity, in \$/mo.
Avg Sales =	The average forecasted billing factor for the remaining months of the rate period, as identified in the rate case, in kilowatts.

 (ii) Formula Rate II for Purchases of Balancing Reserve Capacity to Increase the Amount of Balancing Reserve Capacity to Provide the Imbalance Component for Variable Energy Resource Balancing Service

BPA may apply Formula Rate II to adjust the imbalance reserve rate set forth in section 2(a)(iii) of this rate schedule, with a commensurate increase in non-Federal sources of balancing reserve capacity for Variable Energy Resources Balancing Service, if:

- a. one or more participants in the Pacific Northwest utility industry, including regional organizations, asks the Administrator to increase the amount of balancing reserve capacity provided for Variable Energy Resource Balancing Service; or
- b. because of a legal challenge to DSO 216, BPA is prevented from implementing DSO 216 or is required to amend it materially.

#### Formula Rate II:

Adj Imb Rate = Imb rate + (Avg Cost / Avg Sales)

#### Where:

Adj Imb Rate =	The adjusted Imbalance Reserves rate that replaces section 2(a)(iii), in \$/kW/mo.
Imb Rate =	The Imbalance Reserves rate identified in section 2(a)(iii) plus any previous adjustments under this section (Formula Rate I or Formula Rate II), in \$/kW/mo.
Avg Cost =	The average, spread over the remaining months of the rate period, of the costs associated with acquiring additional balancing reserve capacity, in \$/mo.
Avg Sales =	The average forecasted billing factor for the remaining months of the rate period, as identified in the rate case, in kilowatts.

#### F. DISPATCHABLE ENERGY RESOURCE BALANCING SERVICE

The rate below applies to all non-Federal Dispatchable Energy Resources of 3 MW nameplate rated capacity or greater in the BPA Control Area except as provided in sections III.F.3. Dispatchable Energy Resource Balancing Service is required to help maintain the power system frequency at 60 Hz and to conform to NERC and WECC reliability standards.

#### 1. RATES

The rates for Dispatchable Energy Resource Balancing Service shall not exceed:

- (i) Incremental Reserves = 14.50 mills per kW maximum hourly deviation
- (ii) Decremental Reserves = 3.60 mills per kW maximum hourly deviation

#### 2. BILLING FACTOR

- (a) The hourly billing factor for use of Incremental Reserves is the maximum of the absolute value of the one-minute average negative station control error (under-generation), including ramp periods, that exceeds 2 MW for that hour.
- (b) The hourly billing factor for use of Decremental Reserves is the maximum of the one-minute average positive station control error (over-generation), including ramp periods, that exceeds 2 MW for that hour.

#### 3. EXCEPTIONS

- (a) This rate will not apply to a Dispatchable Energy Resource, or portion of a Dispatchable Energy Resource, that, in BPA's determination, has put in place, tested, and successfully implemented no later than the 15th day of the month prior to the billing month, the dynamic transfer of plant output out of BPA's Balancing Authority Area to another Balancing Authority Area.
- (b) This rate will not apply to a Dispatchable Energy Resource, or portion of a Dispatchable Energy Resource, for any schedule period in which the Dispatchable Energy Resource has called on contingency reserve.
- (c) This rate will not apply to a Dispatchable Energy Resource, or portion of a Dispatchable Energy Resource, for any hour in which the Dispatchable Energy Resource has been ordered by BPA or a host utility within BPA's Balancing Authority Area to generate at a level different from the schedule or generation estimate that the Dispatchable Energy Resource submitted to BPA for any schedule period during that hour.

#### SECTION IV. ADJUSTMENTS, CHARGES, AND OTHER RATE PROVISIONS

#### A. RATE ADJUSTMENT DUE TO FERC ORDER UNDER FPA § 212

Customers taking service under this rate schedule are subject to the Rate Adjustment Due to FERC Order under FPA § 212 specified in section II.D of the GRSPs.

#### B. RATE ADJUSTMENT DUE TO BPA POWER SERVICES ADJUSTMENTS, CHARGES, AND SPECIAL RATE PROVISIONS

Customers taking Regulation and Frequency Response Service, Operating Reserve -Spinning Reserve Service, Operating Reserve - Supplemental Reserve Service, Variable Energy Resource Balancing Service, Provisional Variable Energy Resource Balancing Service, or Dispatchable Energy Resource Balancing Service under this rate schedule are subject to the Cost Recovery Adjustment Clause, Dividend Distribution Clause, and NFB Mechanisms specified in section II.H of the GRSPs. This page intentionally left blank.

### **GENERAL RATE SCHEDULE PROVISIONS**

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### SECTION I. GENERALLY APPLICABLE PROVISIONS

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#### A. APPROVAL OF RATES

These 2012 rate schedules and General Rate Schedule Provisions (GRSPs) for Transmission and Ancillary Service Rates shall become effective upon interim approval or upon final confirmation and approval by the Federal Energy Regulatory Commission (FERC or Commission). Bonneville Power Administration (BPA) has requested that FERC make these rates and GRSPs effective on October 1, 2011. All rate schedules shall remain in effect until they are replaced or expire on their own terms.

#### **B.** GENERAL PROVISIONS

These 2012 rate schedules and the GRSPs associated with these schedules supersede BPA's 2010 rate schedules (which became effective October 1, 2009) to the extent stated in the Availability section of each rate schedule. These schedules and GRSPs shall be applicable to all BPA-TS contracts, including contracts executed both prior to, and subsequent to, enactment of the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act). All sales under these rate schedules are subject to the following acts, as amended: the Bonneville Project Act (P.L. 75-329), 16 U.S.C.§ 832; the Pacific Northwest Consumer Power Preference Act (P.L. 88-552), 16 U.S.C.§ 837; the Federal Columbia River Transmission System Act (P.L. 93-454), 16 U.S.C.§ 838; the Northwest Power Act (P.L. 96-501), 16 U.S.C.§ 839; and the Energy Policy Act of 1992 (P.L. 102-486), 16 U.S.C.§ 824(i)–(1).

These 2012 rate schedules do not supersede any previously established rate schedule that is required, by agreement, to remain in effect.

If a provision in an executed agreement is in conflict with a provision contained herein, the former shall prevail.

#### C. NOTICES

For the purpose of determining elapsed time from receipt of a notice applicable to rate schedule and GRSP administration, a notice shall be deemed to have been received at 0000 hours on the first calendar day following actual receipt of the notice.

#### D. BILLING AND PAYMENT

#### **1. BILLING PROCEDURE**

Within a reasonable time after the first day of each month, BPA-TS shall submit an invoice to the Transmission Customer for the charges for all services furnished under the Tariff and other agreements during the preceding month. The invoice shall be paid by the Transmission Customer within twenty (20) days of receipt. All payments shall be made in immediately available funds payable to BPA-TS, or by wire transfer to a bank named by BPA-TS.

#### 2. INTEREST ON UNPAID BALANCES

Interest on any unpaid amounts (including amounts placed in escrow) shall be calculated in accordance with the methodology specified for interest on refunds in the Commission's regulations at 18 C.F.R. § 35.19a(a)(2)(iii). Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment. When payments are made by mail, bills shall be considered as having been paid on the date of receipt by BPA-TS.

#### **3.** CUSTOMER DEFAULT

In the event the Transmission Customer fails, for any reason other than a billing dispute as described below, to make payment to BPA-TS on or before the due date as described above, and such failure of payment is not corrected within thirty (30) calendar days after BPA-TS notifies the Transmission Customer to cure such failure, a default by the Transmission Customer shall be deemed to exist. Upon the occurrence of a default, BPA-TS may notify the Transmission Customer that it plans to terminate services in sixty (60) days. The Transmission Customer may use the dispute resolution procedures to contest such termination. In the event of a billing dispute between BPA-TS and the Transmission Customer, BPA-TS will continue to provide service under the Service Agreement as long as the Transmission Customer (i) continues to make all payments not in dispute, and (ii) pays into an independent escrow account the portion of the invoice in dispute. pending resolution of such dispute. If the Transmission Customer fails to meet these two requirements for continuation of service, then BPA-TS may provide notice to the Transmission Customer of its intention to suspend service in sixty (60) days, in accordance with Commission policy.

# SECTION II. ADJUSTMENTS, CHARGES, AND SPECIAL RATE PROVISIONS

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#### A. DELIVERY CHARGE

Transmission Customers shall pay a Delivery Charge for service over DSI Delivery facilities and Utility Delivery facilities.

#### 1. RATES

#### a. DSI Delivery

Use-of-Facilities (UFT-12) Rate, section III.B.1 or III.B.2

#### b. Utility Delivery

\$1.119 per kilowatt per month

#### 2. BILLING FACTOR

#### a. Utility Delivery

The monthly Billing Factor for the Utility Delivery rate in section 1.b. shall be the total load on the hour of the Monthly Transmission Peak Load at the Points of Delivery specified as Utility Delivery facilities.

The monthly Utility Delivery Billing Factor shall be adjusted for customers that pay for Utility Delivery facilities under the Use-of-Facilities (UFT) rate schedule. The kilowatt credit shall equal the transmission service over the Delivery facilities used to calculate the UFT charge. This adjustment shall not reduce the Utility Delivery Charge billing factor below zero.

#### b. Metering Adjustment

At those Points of Delivery that do not have meters capable of determining the demand on the hour of the Monthly Transmission Peak Load, the Billing Factor under section 2.a. shall equal the highest hourly demand that occurs during the billing month at the Point of Delivery multiplied by 0.79.

#### **B.** FAILURE TO COMPLY PENALTY CHARGE

#### 1. RATE FOR FAILURE TO COMPLY PENALTY CHARGE

If a party fails to comply with BPA-TS's dispatch, curtailment, redispatch, or load shedding orders, the party will be assessed the Failure to Comply Penalty Charge. The Failure to Comply Penalty Charge shall be the greater of 500 mills per kilowatthour or 150 percent of an hourly energy index in the Pacific Northwest.

If no adequate hourly index exists, an alternative index will be used. At least 30 days prior to the use of such index BPA-TS will post on the OASIS the name of the index to be used. BPA-TS will not change the index more often than once per year unless BPA-TS determines that the existing index is no longer a reliable price index

Parties that are unable to comply with a dispatch, curtailment, load shedding, or redispatch order due to a force majeure on their system will not be subject to the Failure to Comply Penalty Charge provided that they immediately notify the BPA-TS of the situation upon occurrence of the force majeure.

#### 2. BILLING FACTORS

The Billing Factor for the Failure to Comply Penalty Charge shall be the kilowatthours that were not curtailed, redispatched, shed, changed, or limited within ten (10) minutes after issuance of the order in any of the following situations:

- a. Failure to shed load when directed to do so by BPA-TS in accordance with the Load Shedding provisions of the Open Access Transmission Tariff or any other applicable agreement between the parties. This includes failure to shed load pursuant to such orders within the time period specified by the North American Electric Reliability Council (NERC), Western Electricity Coordinating Council (WECC), or Northwest Power Pool (NWPP) criteria.
- b. Failure of a generator in the BPA Control Area or which directly interconnects to the FCRTS to change or limit generation levels when directed to do so by the BPA-TS in accordance with Good Utility Practice as defined in the OATT. This includes failure to change generation levels pursuant to such orders within the time period specified by NERC, WECC, or NWPP criteria.
- c. Failure to curtail or redispatch a reservation or schedule or failure to curtail or redispatch actual transmission use of the Contract or Service Agreement when directed to do so by BPA-TS in accordance with the

curtailment or redispatch provisions of the Open Access Transmission Tariff or any other applicable agreement between the parties. This includes failure to curtail or redispatch pursuant to such scheduling protocols or orders within the time period specified by NERC, WECC, or NWPP criteria.

## 3. ASSESSMENT OF OTHER COSTS RESULTING FROM THE FAILURE TO COMPLY

In addition to the Failure to Comply Penalty Charge, the party will be assessed the costs of alternate measures taken by BPA-TS in order to manage the reliability of the FCRTS due to the failure to comply.

The party will also be assessed monetary penalties imposed on BPA by a Regional Reliability Organization, Electric Reliability Organization, or FERC for a violation of a Reliability Standard authorized under section 215 of the Energy Policy Act of 2005, if the violation was caused by the party's failure to comply.

#### C. POWER FACTOR PENALTY CHARGE

#### 1. DESCRIPTION OF THE POWER FACTOR PENALTY CHARGE

Any party that is interconnected with the Federal Columbia River Transmission System (FCRTS) shall be charged for its reactive power requirements as described in this section, unless otherwise specified in an agreement existing prior to October 1, 1995.

Each point of interconnection or point of delivery shall be monitored and billed independently for determining the party's total reactive power requirements and all associated billing factors, including the Reactive Deadband. If a party is taking transmission service under multiple rate schedules, the party will pay for its reactive power requirements as if it is taking delivery under only one rate schedule.

#### 2. CONDITIONS FOR APPLICATION OF THE POWER FACTOR PENALTY CHARGE

#### a. Measured Data

The Power Factor Penalty Charge will apply to only the party's reactive power requirements for which measured data exist.

#### b. Party's Generating Resource Connected to the FCRTS

Irrespective of the direction of real power flow, the Power Factor Penalty Charge shall apply to points of interconnection where a party's generating resource is directly connected to the FCRTS, *unless* the party's generating resource is either:

- (1) a synchronous generator equipped with a voltage regulator, or
- (2) equipped with reactive power control devices that comply with BPA-TS's applicable interconnection standards.

Such resource must actively support the voltage schedule at the point of integration at all times when the resource is in service, as determined by BPA-TS, for this exemption to apply. Generating resources that do not satisfy the above criteria shall not be exempt from the Power Factor Penalty Charge.

#### c. Bi-directional Real Power Flow

For points other than those specified in section 2.b, the Power Factor Penalty Charge will *not* be applied, and no new Ratchet Demand for reactive power will be established, at a specific point if the metered real power (on an hourly integrated basis) flows from the party's system to the FCRTS at that point for as little as one hour during the billing period. However, the party will still pay any previously incurred demand ratchet charges. The direction of the real power flow will be determined based on metered quantities, not on scheduled quantities.

#### d. Service by Transfer

Points of delivery that are served by transfer over another utility's transmission system will *not* be subject to the Power Factor Penalty Charge *unless* there are significant BPA-TS Network facilities between the party's points of delivery and the transferor's system.

#### e. Specific Points Exempt from the Power Factor Penalty Charge

The Power Factor Penalty Charge will not apply to the following points:

Nevada-Oregon Border (NOB) Big Eddy 500 kV Big Eddy 230 kV John Day 500 kV Malin 500 kV Captain Jack 500 kV Garrison 500 kV Townsend 500 kV

#### f. Special Circumstances

The party may submit requests to BPA-TS for consideration of unique circumstances. BPA-TS will evaluate the request and may make arrangements with the party to address the special circumstances.

#### 3. RATES

BPA-TS will bill the party for reactive power at each point each month as follows:

#### Reactive Demand

\$0.28 per kVAr of lagging reactive demand in excess of the Reactive Deadband during HLH in all months of the year.

\$0.24 per kVAr of leading reactive demand in excess of the Reactive Deadband during LLH in all months of the year.

No charge for leading reactive demand during HLH.

No charge for lagging reactive demand during LLH.

#### 4. BILLING FACTORS

#### a. Reactive Deadband

The Reactive Deadband (measured in kVAr) is used to determine the Reactive Billing Demand and Ratchet Demand for the Power Factor Penalty Charge.

The Reactive Deadband for each billing period is the maximum hourly integrated metered real power demand (measured in kW) at each point during the billing period multiplied by 25 percent.

The Reactive Deadband for either HLH or LLH:

- (1) is computed once per billing period (the same quantity is used for both HLH and LLH),
- (2) does not vary during the billing period, and
- (3) is based on the maximum hourly integrated metered real power demand during that billing period.

#### b. Reactive Billing Demand

The party's Reactive Billing Demand shall be calculated independently for lagging reactive power and leading reactive power at each point for which a Power Factor Penalty Charge is assessed.

All reactive demands shall be established in the particular HLH or LLH at each point during which the party's maximum applicable reactive demand is placed on BPA-TS, regardless of the time of the real power peak at each point.

All reactive demand at each point shall be established on a noncoincidental basis, regardless of whether the party is billed for real power or transmission at such point on a coincidental or non-coincidental basis, *unless* otherwise specified in the agreement between BPA-TS and the party, *or* coincidental billing is, in BPA-TS's sole determination, more practical for BPA-TS.

There will be separate reactive demands for lagging (HLH) and leading (LLH) demands. The party's Reactive Billing Demand for each point for the billing month shall be the *larger* of:

- (1) the largest measured reactive demand in excess of the Reactive Deadband during the billing period, *or*
- (2) the Ratchet Demand for reactive power.

The Ratchet Demand for reactive power is equal to 100 percent of the largest measured reactive demand in excess of the Reactive Deadband during the preceding 11-month period. Each point shall have a separate Ratchet Demand for lagging (HLH) and leading (LLH) reactive demand.

#### 5. ADJUSTMENTS FOR REACTIVE LOSSES

Measured data shall be adjusted for reactive losses, if applicable, before determination of the Reactive Billing Demand.

#### D. RATE ADJUSTMENT DUE TO FERC ORDER UNDER FPA § 212

If, after review by FERC, the NT, PTP, ACS, IS, or IM rate schedule, as initially submitted to FERC, is modified to satisfy the standards of section 212(i)(1)(B)(ii) of the Federal Power Act (16 U.S.C. § 824k(i)(1)(B)(ii)) for FERC-ordered transmission service, then such modifications shall automatically apply to the rate schedule for non-section 212(i)(1)(B)(ii) transmission service. The modifications for non-section 212(i)(1)(B)(ii) transmission service, as described above, shall be effective, however, only prospectively from the date of the final FERC order granting final approval of the rate schedule for FERC-ordered transmission service pursuant to section 212(i)(1)(B)(ii). No refunds shall be made or additional costs charged as a consequence of this prospective modification for any non-section 212(i)(1)(B)(ii) transmission service under the rate schedule prior to the effective date of such prospective modification.

#### E. **RESERVATION FEE**

The Reservation Fee is a nonrefundable fee that shall be charged to any PTP Transmission Service customer that postpones the commencement of service by requesting an extension of the Service Commencement Date specified in the executed Service Agreement.

The Reservation Fee shall be specified in the executed agreement for transmission service.

#### 1. FEE

The Reservation Fee shall be a nonrefundable fee equal to one month's charge for the requested Long-Term Firm Point-to-Point Transmission Service for each year or fraction of a year for which the customer chooses to extend the Service Commencement Date. The Reservation Fee shall be paid annually until transmission service begins or the reservation period ends, whichever occurs first.

#### 2. PAYMENT

The Reservation Fee for the first extension of the Service Commencement Date shall be paid in a lump sum within 30 days of the original Service Commencement Date. For subsequent extensions, the Reservation Fee shall be paid in a lump sum within 30 days of the anniversary date of the original Service Commencement Date.

#### F. TRANSMISSION AND ANCILLARY SERVICES RATE DISCOUNTS

BPA-TS may offer discounted rates for transmission and ancillary services available under the Open Access Transmission Tariff and to the extent provided for in the PTP, IS, IM, and ACS rate schedules.

Three principal requirements apply to discounts for transmission service and Ancillary Services provided by the Transmission Provider in conjunction with its provision of transmission service, as follows:

- 1. any offer of a discount made by the Transmission Provider must be announced to all Eligible Customers solely by posting on the OASIS;
- 2. any customer-initiated requests for discounts (including requests for use by one's wholesale merchant or an affiliate's use) must occur solely by posting on the OASIS; and
- 3. once a discount is negotiated, details must be immediately posted on the OASIS.

For any discount agreed upon for transmission service on a path, from point(s) of receipt to point(s) of delivery, the Transmission Provider must offer the same discounted transmission service rate for the same time period to all Eligible Customers on all unconstrained transmission paths that go to the same point(s) of delivery on the Transmission System.

A discount agreed upon for an Ancillary Service must be offered for the same period to all Eligible Customers on the Transmission Provider's System.

#### G. UNAUTHORIZED INCREASE CHARGE (UIC)

Transmission Customers taking Point-to-Point Transmission Service under the PTP, IS, and IM rate schedules shall be assessed the UIC when they exceed their capacity reservations at any Point of Receipt (POR) or Point of Delivery (POD). BPA-TS will notify a Transmission Customer that is subject to a UIC once BPA-TS has verified the UIC amount.

#### 1. RATE

## a. Point-To-Point Transmission Service (PTP, IS, and IM Rate Schedules)

The UIC rate shall be the lower of (i) 100 mills per kilowatthour plus the price cap established by FERC for spot market sales of energy in the WECC, or (ii) 1000 mills per kilowatthour. If FERC eliminates the price cap, the rate will be 500 mills per kilowatthour.

#### 2. BILLING FACTORS

### a. Point-To-Point Transmission Service (PTP, IS, and IM Rate Schedules

For each hour of the monthly billing period, BPA-TS shall determine the amount by which the Transmission Customer exceeds its capacity reservation at each POD and POR, to the extent practicable. BPA-TS shall use hourly measurements based on a 10-minute moving average to calculate actual demands at PODs associated with loads that are one-way dynamically scheduled and at PORs associated with resources that are one-way dynamically scheduled. To calculate actual demands at PODs and PORs that are associated with two-way dynamic schedules, BPA-TS shall use instantaneous peak demands for each hour. Actual demands at all other PODs and PORs will be based on 60-minute integrated demands or transmission schedules.

For each hour, BPA-TS will sum these amounts that exceed capacity reservations: (1) for all PODs, and (2) for all PORs. The Billing Factor for the monthly billing period shall be the greater of the total of the POD hourly amounts or the total of the POR hourly amounts.

#### **3.** UIC RELIEF

#### a. Criteria for Waiving or Reducing the UIC

Under appropriate circumstances, BPA-TS may waive or reduce the UIC to a Transmission Customer on a non-discriminatory basis. A

Transmission Customer seeking a reduction or waiver must demonstrate good cause for relief, including demonstrating that the event that resulted in the UIC:

- (1) was inadvertent or was the result of an equipment failure or outage that the Transmission Customer could not have reasonably foreseen;
- (2) could not have been avoided by the exercise of reasonable care; and
- (3) did not result in harm to BPA-TS's transmission system or transmission services, or to any other Transmission Customer.

If a waiver or reduction is granted to a Transmission Customer, notice of such waiver or reduction will be posted on the BPA-TS OASIS.

#### b. Transmission Rate if BPA-TS Waives or Reduces the UIC

If BPA-TS waives or reduces the UIC, the Transmission Customer remains subject to the applicable rates, including Ancillary Services rates, for the Transmission Customer's transmission demand. The following rates shall apply to transmission demand that exceeds the capacity reservations of a Transmission Customer taking service under the PTP, IS, or IM rate schedules if BPA-TS waives or reduces the UIC:

- (1) If BPA-TS waives or reduces the UIC for excess transmission demand in one or more hours in the same calendar day, the rate for one day of service under section II.B.1 of the applicable PTP, IS, or IM rate schedule shall apply.
- (2) If BPA-TS waives or reduces the UIC for excess transmission demand on multiple calendar days in the same calendar week, the rate for seven days of service under section II.B.1 of the applicable PTP, IS, or IM rate schedule shall apply.
- (3) If BPA-TS waives or reduces the UIC for excess transmission demand in one or more hours in multiple calendar weeks in the same calendar month, the rate for the number of days in the month of service under section II.B.1 of the applicable PTP, IS, or IM rate schedule shall apply.

For a Transmission Customer taking Point-to-Point Transmission Service under the PTP, IS, or IM rate schedules, the Billing Factor for rates in this section 3.b shall be: (a) the Transmission Customer's highest excess transmission demand for which BPA-TS waives the UIC; or (b) if BPA-TS reduces the UIC, the Transmission Customer's highest excess transmission demand that is not subject to the UIC as a result of the reduction.

#### H. CRAC, DDC, AND THE NFB MECHANISMS

The Cost Recovery Adjustment Clause (CRAC), Dividend Distribution Clause (DDC), and NFB Mechanisms (the NFB Adjustment and the Emergency NFB Surcharge) are detailed in the BPA Power Rate Schedules, GRSPs, sections II.C, II.D, and II.K.

The CRAC and the Emergency NFB Surcharge are upward adjustments to certain Power and Transmission rates. The DDC is a downward adjustment to certain Power and Transmission rates. The NFB Adjustment is an upward adjustment to the cap on the amount of incremental BPA revenue that can be generated by a CRAC during a fiscal year. Except as otherwise provided, the CRAC, DDC, and Emergency NFB Surcharge apply to the following Ancillary and Control Area Service (ACS) rate schedules:

- Regulation and Frequency Response Service
- Operating Reserve Spinning Reserve Service
- Operating Reserve Supplemental Reserve Service
- Variable Energy Resource Balancing Service

Exception: The CRAC, DDC and Emergency NFB Surcharge apply only to the base unadjusted Variable Energy Resource Balancing Service rates specified in section III.E.2(a) of the Variable Energy Resource Balancing Service rate schedule, and not to the difference between that base unadjusted Variable Energy Resource Balancing Service rate and any adjusted Variable Energy Resource Balancing Service rate calculated under Formula Rates I or II in Section III.E.7 in the Variable Energy Resource Balancing Service rate schedule. In addition, the CRAC does not apply to the Variable Energy Resource Balancing Service Supplemental Service rate.

• Dispatchable Energy Resource Balancing Service

#### 1. CUSTOMER CHARGES FOR THE ACS CRAC

The ACS CRAC Amount is the share, in dollars, of the total CRAC Amount that is to be recovered from the ACS rates specified above; the balance of the CRAC Amount is to be recovered from specified Power rates. The ACS CRAC Amount is converted to an ACS CRAC Percentage by dividing the ACS CRAC Amount by the most recent forecast of revenues for the relevant fiscal year at the ACS rates subject to the CRAC.

Line items will be added to the bills for each service during the 12 months of the applicable year by multiplying the ACS CRAC Percentage times each of the applicable rates times the billing factors for each rate for each customer.

#### 2. CUSTOMER CREDIT FOR THE ACS DDC

The ACS DDC Amount is the share, in dollars, of the total DDC Amount that is to be distributed via the ACS rates specified above; the balance of the DDC Amount is to be distributed via specified Power rates. The ACS DDC Amount is converted to an ACS DDC Percentage by dividing the ACS DDC Amount by the most recent forecast of revenues for the relevant fiscal year at the ACS rates subject to the DDC.

Line items showing a credit will be added to the bills for each service during the 12 months of the applicable year by multiplying the ACS DDC Percentage times each of the applicable rates times the billing factors for each rate for each customer.

## 3. CUSTOMER CHARGES FOR THE ACS EMERGENCY NFB SURCHARGE

The ACS Surcharge amount is the share, in dollars, of the total Surcharge Amount that is to be collected from the ACS rates specified above; the balance of the Surcharge Amount is to be collected from specified Power rates. The ACS Surcharge is converted to an ACS Surcharge Percentage by dividing the ACS Surcharge by the most recent forecast of revenues for the relevant fiscal year at the ACS rates subject to the Emergency NFB Surcharge.

Line items will be added to the bills for each service during the 12 months of the applicable year by multiplying the ACS Surcharge Percentage times each of the applicable rates times the billing factors for each rate.

#### 4. CRAC, DDC, AND NFB MECHANISM RATE PROVISIONS

The CRAC, DDC and NFB Mechanism rate provisions specified in the Power Rate Schedules, GRSPs, sections II.C, II.D, and II.K, are incorporated by reference.

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### **SECTION III. DEFINITIONS**

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#### 1. ANCILLARY SERVICES

*Ancillary Services* are those services that are necessary to support the transmission of energy from resources to loads while maintaining reliable operation of the BPA-TS's Transmission System in accordance with Good Utility Practice. Ancillary Services include:

- 1. Scheduling, System Control, and Dispatch; and
- 2. Reactive Supply and Voltage Control from Generation Sources;
- 3. Regulation and Frequency Response;
- 4. Energy Imbalance;
- 5. Operating Reserve Spinning; and
- 6. Operating Reserve Supplemental

Ancillary Services are available under the ACS rate schedule.

#### 2. BILLING FACTOR

The *Billing Factor* is the quantity to which the charge specified in the rate schedule is applied. When the rate schedule includes charges for several products, there may be a Billing Factor for each product.

#### **3. CONTROL AREA**

A *Control Area* (also known as *Balancing Authority Area*) is an electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to:

- match at all times the power output of the generators within the electric power system(s) and the import of energy from entities outside the electric power system(s) with the load within the electric power system(s) and the export of energy to entities outside the electric power system(s);
- 2. maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- 3. maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and
- 4. provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

#### 4. CONTROL AREA SERVICES

*Control Area Services* are available to meet the Reliability Obligations of a party with resources or loads in the BPA Control Area. A party that is not satisfying all of its

Reliability Obligations through the purchase or self-provision of Ancillary Services may purchase Control Area Services to meet its Reliability Obligations. Control Area Services are also available to parties with resources or loads in the BPA Control Area that have Reliability Obligations, but do not have a transmission agreement with BPA-TS. Reliability Obligations for resources or loads in the BPA Control Area are determined by applying the North American Electric Reliability Council (NERC), Western Electricity Coordinating Council (WECC), and the Northwest Power Pool (NWPP) reliability criteria. Control Area Services, include, without limitation:

- 1. Regulation and Frequency Response Service
- 2. Generation Imbalance Service
- 3. Operating Reserve Spinning Reserve Service
- 4. Operating Reserve Supplemental Reserve Service
- 5. Variable Energy Resource Balancing Service
- 6. Dispatchable Energy Resource Balancing Service

#### 5. DAILY SERVICE

*Daily Service* is service that starts at 00:00 of any date and stops at 00:00 at least one (1) day later, but less than or equal to six (6) days later.

#### 6. DIRECT ASSIGNMENT FACILITIES

*Direct Assignment Facilities* are facilities or portions of facilities that are constructed by BPA-TS for the sole use/benefit of a particular Transmission Customer requesting service under the Open Access Transmission Tariff, the costs of which may be directly assigned to the Transmission Customer in accordance with applicable Federal Energy Regulatory Commission policy. Direct Assignment Facilities shall be specified in the service agreement that governs service to the Transmission Customer.

#### 7. DIRECT SERVICE INDUSTRY (DSI) DELIVERY

The *DSI Delivery* segment is the segment of the FCRTS that provides service to DSI customers at voltages of 34.5 kV and below.

#### 8. DISPATCHABLE ENERGY RESOURCE BALANCING SERVICE

Dispatchable Energy Resource Balancing Service (DERBS) is a control area service that provides imbalance reserves (which compensate for differences between a thermal generator's schedule and the actual generation during an hour). DERBS is required to

help maintain the power system frequency at 60 Hz and to conform to NERC and WECC reliability standards.

## 9. **DYNAMIC SCHEDULE**

See definition in Dynamic Transfer Operating and Scheduling Business Practice.

## **10. DYNAMIC TRANSFER**

See definition in Dynamic Transfer Operating and Scheduling Business Practice.

## **11. EASTERN INTERTIE**

The *Eastern Intertie* is the segment of the Federal Columbia River Transmission System (FCRTS) for which the transmission facilities consist of the Townsend-Garrison doublecircuit 500 kV transmission line segment, including related terminals at Garrison.

## 12. ENERGY IMBALANCE SERVICE

*Energy Imbalance Service* is provided when a difference occurs between the scheduled and the actual delivery of energy to a load located within a Control Area. The BPA-TS must offer this service when the transmission service is used to serve load within its Control Area. The Transmission Customer must either purchase this service from the BPA-TS or make alternative comparable arrangements specified in the Transmission Customer's Service Agreement to satisfy its Energy Imbalance Service obligation.

# 13. FEDERAL COLUMBIA RIVER TRANSMISSION SYSTEM

The *Federal Columbia River Transmission System* (FCRTS) is the transmission facilities of the Federal Columbia River Power System, which include all transmission facilities owned by the government and operated by BPA, and other facilities over which BPA has obtained transmission rights.

## 14. FEDERAL SYSTEM

The *Federal System* is the generating facilities of the Federal Columbia River Power System, including the Federal generating facilities for which BPA is designated as marketing agent; the Federal facilities under the jurisdiction of BPA; and any other facilities:

1. from which BPA receives all or a portion of the generating capability (other than station service) for use in meeting BPA's loads to the extent BPA has the right to receive such capability. "BPA's loads" do not include any of the loads of any BPA customer that are served by a non-Federal generating resource purchased or owned directly by such customer which may be scheduled by BPA;

- 2. which BPA may use under contract or license; or
- 3. to the extent of the rights acquired by BPA pursuant to the 1961 U.S.-Canada Treaty relating to the cooperative development of water resources of the Columbia River Basin.

#### **15. GENERATION IMBALANCE**

*Generation Imbalance* is the difference between the scheduled amount and actual delivered amount of energy from a generation resource in the BPA Control Area.

#### 16. GENERATION IMBALANCE SERVICE

*Generation Imbalance Service* is taken when there is a difference between scheduled and actual energy delivered from generation resources in the BPA Control Area during a schedule period.

## 17. HEAVY LOAD HOURS (HLH)

*Heavy Load Hours* (HLH) are all those hours in the peak period hour ending 7 a.m. through hour ending 10 p.m., Monday through Saturday, Pacific Prevailing Time (Pacific Standard Time or Pacific Daylight Time, as applicable). BPA matches NERC Standards in classifying six holidays as Light Load Hour.

#### **18. HOURLY NON-FIRM SERVICE**

*Hourly Non-firm Service* is non-firm transmission service under Part II of the Open Access Transmission Tariff in hourly increments.

#### **19. INTEGRATED DEMAND**

*Integrated Demand* is the quantity derived by mathematically "integrating" kilowatthour deliveries over a 60-minute period. For one-way dynamic schedules, demand is integrated on a rolling ten-minute basis.

## 20. LIGHT LOAD HOURS (LLH)

*Light Load Hours* (LLH) are all those hours in the off-peak period hour ending 11 p.m. through hour ending 6 a.m., Monday through Saturday and all hours Sunday, Pacific Prevailing Time (Pacific Standard Time or Pacific Daylight Time, as applicable). BPA matches six holidays classified according to NERC Standards as LLH. Memorial Day, Labor Day and Thanksgiving occur on the same day each year; Memorial Day is the last Monday in May, Labor Day is the first Monday in September and Thanksgiving Day is the fourth Thursday in November. New Year's Day, Independence Day, and Christmas Day fall on predetermined dates each year. In the event that they fall on a Sunday, the

holiday is celebrated the Monday immediately following that Sunday, so that Monday is also LLH all day. If these days fall on a Saturday, the holiday remains on that Saturday, and that Saturday is classified as LLH.

# 21. LONG-TERM FIRM POINT-TO-POINT (PTP) TRANSMISSION SERVICE

*Long-Term Firm Point-to-Point Transmission Service* is Firm Point-To-Point Transmission Service under Part II of the Open Access Transmission Tariff with a term of one year or more.

## 22. MAIN GRID

As used in the FPT rate schedule, the *Main Grid* is that portion of the Network facilities with an operating voltage of 230 kV or more.

## 23. MAIN GRID DISTANCE

As used in the FPT rate schedules, *Main Grid Distance* is the distance in airline miles on the Main Grid between the Point of Integration (POI) and the Point of Delivery (POD), multiplied by 1.15.

## 24. MAIN GRID INTERCONNECTION TERMINAL

As used in the FPT rate schedules, *Main Grid Interconnection Terminal* refers to Main Grid terminal facilities that interconnect the FCRTS with non-BPA facilities.

# 25. MAIN GRID MISCELLANEOUS FACILITIES

As used in the FPT rate schedules, *Main Grid Miscellaneous Facilities* refers to switching, transformation, and other facilities of the Main Grid not included in other components.

# 26. MAIN GRID TERMINAL

As used in the FPT rate schedules, *Main Grid Terminal* refers to the Main Grid terminal facilities located at the sending and/or receiving end of a line, exclusive of the Interconnection terminals.

# 27. MEASURED DEMAND

The *Measured Demand* is that portion of the customer's Metered or Scheduled Demand for transmission service from BPA-TS under the applicable transmission rate schedule. If transmission service to a point of delivery, or from a point of receipt, is provided under more than one rate schedule, the portion of the measured quantities assigned to any rate schedule shall be as specified by contract. The portion of the total Measured Demand so assigned shall be the Measured Demand for transmission service for each transmission rate schedule.

#### **28. METERED DEMAND**

Except for dynamic schedules, the *Metered Demand* in kilowatts shall be the largest of the 60-minute clock-hour Integrated Demands at which electric energy is delivered (received) for a transmission customer:

- 1. at each point of delivery (receipt) for which the Metered Demand is the basis for the determination of the Measured Demand;
- 2. during each time period specified in the applicable rate schedule; and
- 3. during any billing period.

Such largest Integrated Demand shall be determined from measurements made in accord with the provisions of the applicable contract and these GRSPs. This amount shall be adjusted as provided herein and in the applicable agreement between BPA-TS and the customer.

For one-way Dynamic Schedules, the Metered Demand in kilowatts shall be the largest ten-minute moving average of the load (generation) at the point of delivery (receipt). The ten-minute moving average shall be assigned to the hour in which the ten-minute period ends. For two-way Dynamic Schedules, the Metered Demand in kilowatts shall be the largest instantaneous value of the Dynamic Schedule during the hour.

#### **29. MONTANA INTERTIE**

The *Montana Intertie* is the double-circuit 500 kV transmission line and associated substation facilities from Broadview Substation to Garrison Substation.

#### **30. MONTHLY SERVICE**

*Monthly Service* is service that starts at 00:00 on any date and stops at 00:00 at least 28 days later, but less than or equal to 364 days later.

## **31. MONTHLY TRANSMISSION PEAK LOAD**

*Monthly Transmission Peak Load* is the peak loading on the Federal Transmission System during any hour of the designated billing month, determined by the largest hourly integrated demand produced from the sum of Federal and non-Federal generating plants in BPA's Control Area and metered flow into BPA's Control Area.

## **32.** NETWORK (OR INTEGRATED NETWORK)

The *Network* is the segment of the Federal Columbia River Transmission System (FCRTS) for which the transmission facilities provide the bulk of transmission of electric power within the Pacific Northwest.

## 33. NETWORK INTEGRATION TRANSMISSION (NT) SERVICE

*Network Integration Transmission (NT) Service* is the transmission service provided under Part III of the Open Access Transmission Tariff.

## 34. NETWORK LOAD

*Network Load* is the load that a Network Customer designates for Network Integration Transmission Service under Part III of the Open Access Transmission Tariff. The Network Customer's Network Load shall include all load served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but may not designate only part of the load at a discrete Point of Delivery.

Where an Eligible Customer has elected not to designate a particular load at discrete Points of Delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-to-Point Transmission Service that may be necessary for such non-designated load.

## **35. NETWORK UPGRADES**

*Network Upgrades* are modifications or additions to transmission-related facilities that are integrated with and support the BPA Transmission System for the general benefit of all users of such Transmission System.

## 36. NON-FIRM POINT-TO-POINT (PTP) TRANSMISSION SERVICE

*Non-Firm Point-To-Point Transmission Service* is Point-To-Point Transmission Service under the Open Access Transmission Tariff that is reserved and scheduled on an asavailable basis and is subject to Curtailment or Interruption as set forth in Section 14.7 under Part II of the Tariff. Non-Firm PTP Transmission Service is available on a standalone basis for periods ranging from one hour to one month.

# **37. OPERATING RESERVE -- SPINNING RESERVE SERVICE**

*Operating Reserve -- Spinning Reserve Service* is needed to serve load immediately in the event of a system contingency. Spinning Reserve Service may be provided by generating units that are on-line and loaded at less than maximum output. The BPA-TS must offer this service in accordance with applicable NERC, WECC, and NWPP standards. The Transmission or Control Area Service Customer must either purchase

this service from the BPA-TS or make alternative comparable arrangements to satisfy its Spinning Reserve Service obligation. The Transmission or Control Area Service Customer's obligation is determined consistent with North American Electric Reliability Council (NERC), Western Systems Coordinating Council (WECC) and Northwest Power Pool (NWPP) criteria.

#### **38.** OPERATING RESERVE – SUPPLEMENTAL RESERVE SERVICE

Operating Reserve – Supplemental Reserve Service is needed to serve load in the event of a system contingency; however, it is not available immediately to serve load but rather within a short period of time. Supplemental Reserve Service may be provided by generating units that are on-line but unloaded, by quick-start generation or by interruptible load. The BPA-TS must offer this service in accordance with applicable NERC, WECC, and NWPP standards. The Transmission or Control Area Service Customer must either purchase this service from the BPA-TS or make alternative but comparable arrangements to satisfy its Supplemental Reserve Service obligation. The Transmission Customer's obligation is determined consistent with North American Electric Reliability Council (NERC), Western Electricity Coordinating Council (WECC) and Northwest Power Pool criteria.

## **39. OPERATING RESERVE REQUIREMENT**

*Operating Reserve Requirement* is a party's total operating reserve obligation (spinning and supplemental) to the BPA Control Area. A party is responsible for purchasing or otherwise providing Operating Reserves associated with its transactions which impose a reserve obligation on the BPA Control Area.

The specific amounts required are determined consistent with North American Electric Reliability Council (NERC) Policies, the Northwest Power Pool (NWPP) Operating Manual, "Contingency Reserve Sharing Procedure," and the Western Electricity Coordinating Council (WECC) Standards.

#### 40. PERSISTENT DEVIATION

A Persistent Deviation event is one or more of the following:

1. For Generation Imbalance Service only:

All hours or scheduled periods in which either a negative deviation (actual generation greater than scheduled) or positive deviation (generation is less than scheduled) exceeds:

(a) both 15% of the schedule and 20 MW in each scheduled period for four consecutive hours or more in the same direction;

- (b) both 7.5% of the schedule and 10 MW in each scheduled period for six consecutive hours or more in the same direction;
- (c) both 1.5% of the schedule and 5 MW in each scheduled period for twelve consecutive hours or more in the same direction; or
- (d) both 1.5% of the schedule and 2 MW in each scheduled period for twentyfour consecutive hours or more in the same direction.

## 2. For Energy Imbalance Service only:

All hours or scheduled periods in which either a negative deviation (energy taken is less than the scheduled energy) or positive deviation (energy taken is greater than energy scheduled) exceeds:

- (a) both 15% of the schedule and 20 MW in each scheduled period for four consecutive hours or more in the same direction;
- (b) both 7.5% of the schedule and 10 MW in each scheduled period for six consecutive hours or more in the same direction;
- (c) both 1.5% of the schedule and 5 MW in each scheduled period for twelve consecutive hours or more in the same direction; or
- (d) both 1.5% of the schedule and 2 MW in each scheduled period for twentyfour consecutive hours or more in the same direction.
- 3. A pattern of under or over delivery or over or under use of energy occurs generally or at specific times of day.

Upon 90 days written notice on BPA-TS's OASIS that BPA-TS has implemented intra-hour scheduling for exports and imports of energy within and out of the BPA Balancing Authority Area, parts 1(a) and 2(a) above shall be deemed replaced with the following:

(a) both 15% of the schedule and 20 MW in each scheduled period for three consecutive hours or more in the same direction.

## 41. POINT OF DELIVERY (POD)

A *Point of Delivery* is a point on the BPA Transmission System, or transfer points on other utility systems pursuant to Section 36 of the Open Access Transmission Tariff, where capacity and energy transmitted by the BPA-TS will be made available to the Receiving Party under Parts II and III of the Tariff or to the Transmission Customer under other BPA transmission service agreements. The Point(s) of Delivery shall be

specified in the Service Agreement for Long-Term Firm Point-to-Point Service, Network Integration Transmission Service, and other BPA-TS.

#### 42. POINT OF INTEGRATION (POI)

A *Point of Integration* is the contractual interconnection point where power is received from the customer. Typically, a point of integration is located at a resource site, but it could be located at some other interconnection point.

#### 43. POINT OF INTERCONNECTION (POI)

A *Point of Interconnection* is a point where the facilities of two entities are interconnected. This term is used in certain pre-Open Access Transmission Tariff service agreements and has the same meaning as "Point of Integration" and "Point of Receipt."

#### 44. POINT OF RECEIPT (POR)

A *Point of Receipt* is a point of interconnection on the BPA Transmission System where capacity and energy will be made available to BPA-TS by the Delivering Party under Parts II and III of the Open Access Transmission Tariff. The Point(s) of Receipt shall be specified in the Service Agreement for Long-Term Firm Point-to-Point Service, Network Integration Transmission Service, and other BPA-TS.

#### 45. PROVISIONAL VARIABLE ENERGY RESOURCE BALANCING SERVICE

Provisional Variable Energy Resource Balancing Service is a type of Variable Energy Resource Balancing Service (VERBS) that is offered during a rate period to customers that lose their status as a self-supplier of one or more components of VERBS and to customers that did not have an expected interconnection date during the rate period and accelerate their interconnection date into the rate period.

#### 46. RATCHET DEMAND

The *Ratchet Demand* in kilowatts or kilovars is the maximum demand established during a specified period of time either during, or prior to, the current billing period. The Ratchet Demand shall be the maximum demand established during the previous 11 billing months. If a Transmission Demand has been decreased pursuant to the terms of the transmission agreement during the previous 11 billing months, such decrease will be reflected in determining the Ratchet Demand. The Ratchet Demand for reactive power is defined in the Power Factor Penalty Charge at section II.C of these GRSPs.

## 47. **REACTIVE POWER**

*Reactive Power* is the out-of-phase component of the total volt-amperes in an electric circuit. Reactive Power has two components: reactive demand (expressed in kilovars or kVAr) and reactive energy (expressed in kilovarhours or kVArh).

# 48. REACTIVE SUPPLY AND VOLTAGE CONTROL FROM GENERATION SOURCES SERVICE

*Reactive Supply and Voltage Control from Generation Sources Service* is required to maintain voltage levels on BPA-TS's transmission facilities within acceptable limits. In order to maintain transmission voltages on BPA-TS's transmission facilities within acceptable limits, generation facilities (in the Control Area where the BPA-TS transmission facilities are located) are operated to produce (or absorb) reactive power. Thus, Reactive Supply and Voltage Control from Generation Sources Service must be provided for each transaction on BPA-TS's transmission facilities. The amount of Reactive Supply and Voltage Control from Generation Sources Service that must be supplied with respect to the Transmission Customer's transaction will be determined based on the reactive power support necessary to maintain transmission voltages within limits that are generally accepted in the region and consistently adhered to by BPA-TS. The Transmission Customer must purchase this service from BPA-TS.

## 49. REGULATION AND FREQUENCY RESPONSE SERVICE

*Regulation and Frequency Response Service* is necessary to provide for the continuous balancing of resources (generation and interchange) with load and for maintaining scheduled Interconnection frequency at sixty cycles per second (60 Hz). Regulation and Frequency Response Service is accomplished by committing on-line generation whose output is raised or lowered (predominantly through the use of automatic generating control equipment) as necessary to follow the moment-by-moment changes in load. The obligation to maintain this balance between resources and load lies with the BPA-TS. The BPA-TS must offer this service when the transmission service is used to serve load within its Control Area. The Transmission Customer must either purchase this service from the BPA-TS or make alternative comparable arrangements to satisfy its Regulation and Frequency Response Service obligation.

## 50. RELIABILITY OBLIGATIONS

*Reliability Obligations* are the obligations that a party with resources or loads in the BPA Control Area must provide in order to meet minimum reliability standards. Reliability Obligations shall be determined consistent with applicable North American Electric Reliability Council (NERC), Western Electricity Coordinating Council (WECC), and Northwest Power Pool (NWPP) standards. BPA-TS offers Ancillary Services and Control Area Services to allow resources or loads to meet their Reliability Obligations.

## 51. RESERVED CAPACITY

*Reserved Capacity* is the maximum amount of capacity and energy that BPA-TS agrees to transmit for the Transmission Customer over the BPA Transmission System between the Point(s) of Receipt and the Point(s) of Delivery under Part II of the Open Access Transmission Tariff. Reserved Capacity shall be expressed in terms of whole megawatts

on a sixty (60)-minute interval (commencing on the clock hour) basis. In cases where Dynamic Schedules are involved, the Reserved Capacity must be set at a level to accommodate (i) a demand equal to the largest ten-minute moving average of the load or generation expected to occur during the contract period for one-way Dynamic Schedules used to transfer generation or load from one Control Area to another Control Area; or (ii) a demand equal to the instantaneous peak demand, for each direction, of the supplemental Control Area service request expected to occur during the contract period for two-way Dynamic Transfers used to provide supplemental Control Area services. The supplemental Control Area service response shall always be the lesser of the Control Area service request or the Reserved Capacity associated with the supplemental Control Area service.

## **52.** SCHEDULED DEMAND

*Scheduled Demand* is the hourly demand at which electric energy is scheduled for transmission on the FCRTS.

## 53. SCHEDULING, SYSTEM CONTROL, AND DISPATCH SERVICE

*Scheduling, System Control, and Dispatch Service* is an Ancillary Service required to schedule the movement of power through, out of, within, or into a Control Area. This service can be provided only by the operator of the Control Area in which the transmission facilities used for transmission service are located. The Transmission Customer must purchase this service from BPA-TS.

## 54. SECONDARY SYSTEM

As used in the FPT rate schedules, *Secondary System* is that portion of the Network facilities with an operating voltage greater than or equal to 69 kV and less than 230 kV.

## 55. SECONDARY SYSTEM DISTANCE

As used in the FPT rate schedules, *Secondary System Distance* is the number of circuit miles of Secondary System transmission lines between the secondary Point of Integration and either the Main Grid or the secondary Point of Delivery (POD), or between the Main Grid and the secondary POD.

## 56. SECONDARY SYSTEM INTERCONNECTION TERMINAL

As used in the FPT rate schedules, *Secondary System Interconnection Terminal* refers to the terminal facilities on the Secondary System that interconnect the FCRTS with non-BPA facilities.

## 57. SECONDARY SYSTEM INTERMEDIATE TERMINAL

As used in the FPT rate schedules, *Secondary System Intermediate Terminal* refers to the first and final terminal facilities in the Secondary System transmission path, exclusive of the Secondary System Interconnection terminals.

#### 58. SECONDARY TRANSFORMATION

As used in the FPT rate schedules, *Secondary Transformation* refers to transformation from Main Grid to Secondary System facilities.

## 59. SHORT-TERM FIRM POINT-TO-POINT (PTP) TRANSMISSION SERVICE

*Short-Term Firm Point-To-Point Transmission Service* is Firm Point-To-Point Transmission Service under Part II of the Open Access Transmission Tariff with a term of less than one year. Short-Term Firm Point-To-Point Transmission Service with a duration of less than one calendar day is sometimes referred to as Hourly Firm Point-To-Point Transmission Service.

## 60. SOUTHERN INTERTIE

The *Southern Intertie* is the segment of the FCRTS that includes, but is not limited to, the major transmission facilities consisting of two 500-kV AC lines from John Day Substation to the Oregon-California border; a portion of the 500-kV AC line from Buckley Substation to Summer Lake Substation; and the 500-kV AC Intertie facilities, which include Captain Jack Substation, the Alvey-Meridian AC line, one 1,000-kV DC line between the Celilo Substation and the Oregon-Nevada border, and associated substation facilities.

## 61. SPILL CONDITION

*Spill Condition*, for the purpose of determining credit or payment for Deviations under the Energy Imbalance and Generation Imbalance rates, exists when spill physically occurs on the BPA system due to lack of load or market. Spill due to lack of load or market typically occurs during periods of high flows or flood control implementation, but can also occur at other times. Discretionary spill, where BPA may choose whether to spill, does not constitute a Spill Condition. Spill for fish is included in discretionary spill and is not a Spill Condition.

## 62. SPINNING RESERVE REQUIREMENT

*Spinning Reserve Requirement* is a portion of a party's Operating Reserve Requirement to the BPA Control Area. A party is responsible for purchasing or otherwise providing Operating Reserve - Spinning Reserve Service associated with its transactions which impose a reserve obligation on the BPA Control Area.

The specific amounts required are determined consistent with North American Electric Reliability Council (NERC) Policies, the Northwest Power Pool (NWPP) Operating Manual, "Contingency Reserve Sharing Procedure," and the Western Electricity Coordinating Council (WECC) Standards.

## 63. SUPPLEMENTAL RESERVE REQUIREMENT

*Supplemental Reserve Requirement* is a portion of a party's Operating Reserve Requirement to the BPA Control Area. A party is responsible for purchasing or otherwise providing Operating Reserve – Supplemental Reserve Service associated with its transactions which impose a reserve obligation on the BPA Control Area.

The specific amounts required are determined consistent with North American Electric Reliability Council (NERC) Policies, the Northwest Power Pool (NWPP) Operating Manual, "Contingency Reserve Sharing Procedure," and the Western Electricity Coordinating Council (WECC) Standards.

## 64. TOTAL TRANSMISSION DEMAND

*Total Transmission Demand* is the sum of all the transmission demands as defined in the applicable agreement.

## 65. TRANSMISSION CUSTOMER

A *Transmission Customer* is any Eligible Customer (or its Designated Agent) under the Open Access Transmission Tariff that (i) executes a Service Agreement, or (ii) requests in writing that BPA-TS file with the Commission a proposed unexecuted Service Agreement to receive transmission service under Part II of the Tariff. In addition, a Transmission Customer is an entity that has executed any other transmission service agreement with BPA-TS.

## 66. TRANSMISSION DEMAND

*Transmission Demand* is the maximum amount of capacity BPA-TS agrees to make available to transmit energy for the Transmission Customer over the BPA Transmission System between the Point(s) of Integration/Interconnection/Receipt and the Point(s) of Delivery.

## 67. TRANSMISSION PROVIDER

A *Transmission Provider*, such as BPA-TS, owns, controls, or operates facilities used for the transmission of electric energy in interstate commerce and provides transmission service under the Open Access Transmission Tariff and other agreements.

## **68. UTILITY DELIVERY**

The *Utility Delivery* segment is that segment of the FCRTS that provides service to utility customers at voltages below 34.5 kV.

## 69. VARIABLE ENERGY RESOURCE BALANCING SERVICE

Variable Energy Resource Balancing Service (VERBS) is a control area service comprised of three components: regulating reserves (which compensate for moment-tomoment differences between generation and load), following reserves (which compensate for larger differences occurring over longer periods of time during the hour), and imbalance reserves (which compensate for differences between the generator's schedule and the actual generation during an hour). Variable Energy Resource Balancing Service is required to help maintain the power system frequency at 60 Hz and to conform to NERC and WECC reliability standards.

## 70. WEEKLY SERVICE

*Weekly Service* is service that starts at 00:00 on any date and stops at 00:00 at least seven (7) days later, but less than or equal to 27 days later.

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