

INDEX

TESTIMONY of

SCOTT W. WINNER, DAVID W. BOGDON, DANNY L. CHEN,
KIMBERLY D. GILLILAND, DAVID L. GILMAN, MARK A. JACKSON,
JANET ROSS KLIPPSTEIN, and TERRIN L. PEARSON

Witnesses for Bonneville Power Administration

**SUBJECT: GENERATION INPUTS FOR OTHER INTER-BUSINESS LINE
ALLOCATIONS**

	Page
Section 1: Introduction and Purpose of Testimony.....	1
Section 2: Redispatch.....	2
Section 2.1: Redispatch Revenues.....	3
Section 3: COE and Reclamation Segmentation Analysis.....	5
Section 3.1: Calculation of Costs for the Generation Integration Segment	7
Section 3.2: Calculation of Costs for the Network and Utility Delivery Segments	8
Section 4: Station Service	9

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9 **SUBJECT: GENERATION INPUTS FOR OTHER INTER-BUSINESS LINE**
10 **ALLOCATIONS**

11 **Section 1: Introduction and Purpose of Testimony**

12 *Q. Please state your names and qualifications.*

13 A. My name is Scott W. Winner and my qualifications are contained in WP-10-Q-BPA-61.
14 I am a witness for Redispatch.

15 A. My name is David W. Bogdon and my qualifications are contained in WP-10-Q-BPA-
16 07. I am a witness for Segmentation of COE/Reclamation Network and Delivery
17 Facilities.

18 A. My name is Danny L. Chen and my qualifications are contained in WP-10-Q-BPA-10.
19 I am a witness for Station Service.

20 A. My name is Kimberly D. Gilliland and my qualifications are contained in WP-10-Q-
21 BPA-22. I am a witness for Station Service.

22 A. My name is David L. Gilman and my qualifications are contained in WP-10-Q-BPA-23.
23 I am a witness for Segmentation of COE/Reclamation Network and Delivery Facilities.

24 A. My name is Mark A. Jackson and my qualifications are contained in WP-10-Q-BPA-29.
25 I am a witness for Redispatch.

26 A. My name is Janet Ross Klippstein and my qualifications are contained in WP-10-Q-
27 BPA-34. I am a witness for Station Service.

WP-10-E-BPA-28

Page 1

Witnesses: Scott W. Winner, David W. Bogdon, Danny L. Chen, Kimberly D. Gilliland,
David L. Gilman, Mark A. Jackson, Janet Ross Klippstein, and Terrin L. Pearson

1 A. My name is Terrin L. Pearson and my qualifications are contained in WP-10-Q-BPA-49.
2 I am a witness for Redispatch.

3 *Q. What is the purpose of your testimony?*

4 A. The purpose this testimony is to sponsor sections 8, 9, and 10 of the Generation Inputs
5 Study, WP-10-E-BPA-08, and to support the forecast of revenues Power Services (PS)
6 will receive from Transmission Services (TS) for Redispatch Services under Attachment
7 M of the Open Access Transmission Tariff (OATT) in the rate period; the segmentation
8 analysis of the U.S. Army Corps of Engineers (COE) and Bureau of Reclamation
9 (Reclamation) transmission facilities; and the methodology used to determine the
10 quantity of Station Service usage and the costs that PS will allocate to TS for Station
11 Service energy usage.

12 *Q. How is your testimony organized?*

13 A. This testimony is presented in four sections; section 1 is this introduction. Section 2
14 describes Redispatch under Attachment M of the OATT, and section 2.1 describes how
15 the revenues for Redispatch Services are forecast. Section 3 is an explanation of the
16 segmentation analysis of the COE and Reclamation transmission facilities. Section 3.1
17 is a description of the costs associated with the Generation Integration segment, and
18 section 3.2 is a discussion of the calculation of the costs of the Network and Utility
19 Delivery segments. Section 4 discusses Station Service.

20
21 **Section 2: Redispatch**

22 *Q. Please describe Redispatch.*

23 A. TS requests Redispatch of Federal and non-Federal resources as part of congestion
24 management efforts. Typically, Redispatch results in decrementing resources that can
25 effectively relieve flowgates that are at or near Operating Transfer Capability (OTC)

1 limits, and incrementing other resources that are not impinging the flowgates to maintain
2 service to loads.

3 *Q. In what situations will TS request Redispatch from PS?*

4 A. Under Attachment M of the OATT, there are three levels of Redispatch that may be
5 called upon by TS from PS: 1) Discretionary Redispatch; 2) Network Transmission
6 (NT) Redispatch; and 3) Emergency Redispatch. Under Discretionary Redispatch, TS
7 may request discretionary bids for Redispatch from PS. Under a separate program, TS
8 may also request discretionary bids for Redispatch from non-Federal resources.
9 Discretionary Redispatch is the preferred method for managing congestion, as it
10 provides immediate relief and avoids the need to curtail any transactions. NT
11 Redispatch is requested by TS in order to maintain firm NT schedules. NT Redispatch
12 may be requested only after all non-firm Point-to-Point and secondary NT schedules are
13 curtailed according to North American Electric Reliability Corporation (NERC)
14 curtailment priority. For NT Redispatch, TS may also request PS to make transmission
15 purchases and/or power purchases or sales to maintain firm NT schedules. PS must
16 provide NT Redispatch upon request, to the extent PS can do so without violating non-
17 power constraints. Emergency Redispatch must be provided by PS when TS declares a
18 system emergency as defined by NERC. WP-10-E-BPA-08, section 8.

19
20 **Section 2.1: Redispatch Revenues**

21 *Q. How does BPA calculate the revenues for a Redispatch event?*

22 A. For Discretionary Redispatch, PS provides TS with incremental and decremental bids
23 that TS can either accept or reject. PS revenues from Discretionary Redispatch are
24 calculated on bids that are accepted by TS. Revenues collected from NT Redispatch are
25 calculated from two sources. They include market prices for incrementing and

1 decrementing Federal Columbia River Power System (FCRPS) resources when
2 requested by TS, and the actual cost to PS of purchasing replacement power and/or
3 replacement transmission to maintain firm NT schedules.

4 *Q. How do you forecast revenues for Redispatch for the FY 2010-2011 rate period?*

5 A. To forecast revenues for the FY 2010-2011 rate period, we look back at revenues
6 collected in FY 2008 for Redispatch Services, and use those revenues as the basis of our
7 forecast. As will be explained further below, we remove certain Redispatch events from
8 FY 2008 revenues because those events are not expected to reoccur.

9 *Q. What are the projected revenues for Discretionary Redispatch for the FY 2010-2011 rate
10 period?*

11 A. We are forecasting \$175,000 per year as the expected revenues for Discretionary
12 Redispatch for the FY 2010-2011 rate period. This forecast is based on adjusted FY
13 2008 revenues of \$174,069 for Discretionary Redispatch. Although actual revenues for
14 FY 2008 totaled \$499,693, \$325,624 of the revenues were attributable to one Redispatch
15 event that is not expected to reoccur. That event was caused by the transition to new
16 congestion management tools. Training and new procedures should prevent the
17 reoccurrence of a similar event in the future. WP-10-E-BPA-08, section 8 and
18 Table 8.2.

19 *Q. What are the forecast revenues for NT Redispatch for the FY 2010-2011 rate period?*

20 A. We are forecasting \$225,000 per year as the expected revenues for NT Redispatch for
21 the FY 2010-2011 rate period. This forecast is based on adjusted FY 2008 revenues of
22 \$232,119 for NT Redispatch. Actual revenues for NT Redispatch in FY 2008 totaled
23 \$542,678, but \$310,559 of that total was attributable to one redispatch event that is not
24 expected to reoccur. That event was caused by the need to replace certain transmission
25 poles, which was a one-time occurrence. WP-10-E-BPA-08, section 8 and Table 8.1.

1 Q. *What are the forecast revenues for Emergency Redispatch for the FY 2010-2011 rate*
2 *period?*

3 A. There are no forecast revenues for Emergency Redispatch for the FY 2010-2011 rate
4 period. TS has never requested Emergency Redispatch from PS. WP-10-E-BPA-08,
5 section 8.

6 Q. *What are the total forecast revenues for Redispatch Services for the FY 2010-2011 rate*
7 *period?*

8 A. We are forecasting \$400,000 per year as the expected revenues for providing Redispatch
9 Services for the FY 2010-2011 rate period.

10

11 **Section 3: COE and Reclamation Segmentation Analysis**

12 Q. *Please explain the proposed treatment of COE and Reclamation transmission costs.*

13 A. A small portion of the COE and Reclamation investment is associated with transmission
14 facilities. In the WP-07 Final Proposal, BPA included all COE and Reclamation
15 investments, including those associated with transmission facilities, in the PS repayment
16 study and the PS revenue requirements. *See* Revenue Requirement Study, WP-07-E-
17 BPA-02, section 2.3. Although these investment costs are paid by PS, they are allocated
18 to TS and identified and assigned to the appropriate transmission segment. PS then
19 recovers from TS as a revenue credit the costs of transmission facilities that perform a
20 Network or Utility Delivery function, as explain in section 3.2. BPA has used this
21 methodology since the WP-02 Final Proposal and we propose to continue this treatment
22 for the COE and Reclamation transmission costs for the FY 2010-2011 rate period.

1 Q. *Why is it necessary to assign the investments of COE and Reclamation transmission*
2 *facilities to the transmission segments?*

3 A. COE and Reclamation transmission facilities perform Generation Integration, Network,
4 and Utility Delivery functions. The investment in transmission facilities should be
5 assigned to the appropriate function so the costs can be assigned to the appropriate use.
6 The costs of transmission facilities that perform a Generation Integration function
7 should be assigned to PS and recovered through power rates, while the costs of
8 transmission facilities that perform Network and Delivery functions should be assigned
9 to TS and recovered through transmission rates. WP-10-E-BPA-08, section 9.

10 Q. *How are the COE and Reclamation transmission facility investments assigned to the*
11 *various segments?*

12 A. The assignment of transmission facility investment to the appropriate segment is
13 consistent with the 2002 Final Transmission Proposal Segmentation Study
14 (Segmentation Study), TR-02-FS-BPA-02. The Segmentation Study is the last
15 segmentation study performed by TS and has been used as the basis for segmentation of
16 COE and Reclamation facilities ever since. COE and Reclamation transmission
17 facilities are segmented into three segments: Generation Integration, Network, and
18 Utility Delivery. Generation Integration facilities are those facilities that connect
19 Federal generation to the BPA Transmission Network. This includes generator step-up
20 transformers (GSUs), powerhouse lines or cables, and switching equipment at the
21 Network station for the powerhouse line. Network facilities are those facilities that
22 supply bulk power to the other transmission segments and operate at voltages of
23 34.5 kilovolts and above. Utility Delivery facilities are those facilities that deliver
24 power to BPA public utility customers at voltages less than 34.5 kilovolts. As
25 previously stated, Generation Integration costs should be assigned to power, and

1 Network and Utility Delivery costs should be assigned to transmission. WP-10-E-BPA-
2 08 section 9.

3 *Q. Does this proposal determine the segmentation for BPA-owned transmission facilities?*

4 A. No. This proposal addresses only those transmission facilities owned by the COE and
5 Reclamation. The segmentation of BPA-owned transmission facilities is a part of the
6 transmission rate case.

7
8 **Section 3.1: Calculation of Costs for the Generation Integration Segment**

9 *Q. What are Generation Integration facilities?*

10 A. As stated in the previous section, Generation Integration facilities connect Federal
11 generation to the BPA transmission network and include GSUs, powerhouse lines or
12 cables, and switching equipment at the Network station for the powerhouse line.
13 WP-10-E-BPA-08, section 9.

14 *Q. What are GSUs?*

15 A. These are the facilities at the Federal projects that transform the voltage of the power
16 from that of the generator to that of the local transmission system. The GSUs are all
17 owned by the project owner. Separate identification of the GSUs facilitates the
18 segmentation of Generation Integration facilities from Network and Utility Deliver
19 facilities.

20 *Q. Where is the Generation Integration cost determined?*

21 A. The Generation Integration facilities are separated into two portions based on either
22 ownership by COE or Reclamation, or ownership by BPA. WP-10-E-BPA-08,
23 Tables 9.1-9.5. The costs of COE and Reclamation Generation Integration facilities are
24 included directly in the generation revenue requirement; accordingly, those costs are

1 determined in the Power rate proceeding. The costs of BPA-owned facilities are
2 determined in the Transmission rate proceeding.

3 *Q. What are the proposed costs of the Generation Integration segment for the rate period?*

4 A. The total investment in transmission facilities segmented to Generation Integration is
5 \$149.2 million. WP-10-E-BPA-08, Table 9.6.

6
7 **Section 3.2: Calculation of Costs for the Network and Utility Delivery Segments**

8 *Q. Please describe the revenue credit to the generation revenue requirement for the COE*
9 *and Reclamation transmission facilities.*

10 A. The annual costs of the Network and Utility Delivery transmission facilities are included
11 in the generation revenue requirement combined with all other COE and Reclamation
12 costs. The segmentation analysis determines the COE and Reclamation investment in
13 these segments, which is used to develop the annual costs associated with these
14 segments. WP-10-E-BPA-02A, section 2.3. The costs of these facilities (operation and
15 maintenance, depreciation, interest expense, and minimum required net revenues
16 (MRNR)) are then allocated to TS to be recovered through transmission rates. As stated
17 previously, BPA has utilized this methodology to allocate the costs of COE and
18 Reclamation transmission facilities since the WP-02 rate case, and we propose to
19 continue using this methodology.

20 *Q. What are the annual costs of the Network and Delivery segments?*

21 A. The total investment in Network transmission facilities is \$57.3 million, and the total
22 investment in Utility Delivery transmission facilities is \$1.2 million. WP-10-E-BPA-08,
23 Table 9.6. For Network facilities, the combination of operation and maintenance,
24 depreciation, interest expense, and MRNR results in a revenue requirement of \$5.7
25 million for FY 2010 and \$5.4 million for FY 2011, with an annual average of \$5.533

1 million for the FY 2010-2011 rate period. WP-10-E-BPA-08, Table 9.7. For Utility
2 Delivery facilities, the combination of operation and maintenance, depreciation, interest
3 expense, and MRNR results in a revenue requirement of \$823,000 for FY 2010 and
4 \$887,000 for FY 2011, with an annual average of \$855,000 for the FY 2010-2011 rate
5 period. *Id.*

6 *Q. What is the total revenue requirement for the Network and Utility Delivery segments*
7 *allocated to TS?*

8 A. The total revenue requirement for the Network and Utility Delivery segments is
9 \$6.5 million for FY 2010 and \$6.3 million for FY 2011, with an annual average of \$6.4
10 million for the FY 2010-2011 rate period. *Id.*

11
12 **Section 4: Station Service**

13 *Q. What is Station Service?*

14 A. Station Service refers to real power TS takes directly off the BPA power system for use
15 at BPA's substations and other non-electric plant located on the Ross Complex and the
16 Big Eddy/Celilo Complex.

17 *Q. What costs are allocated to Station Service?*

18 A. The costs allocated to Station Service are the real power costs for power supplied by
19 Power Services for use at BPA substations. This does not include Station Service that
20 TS purchases from another utility or that is supplied by another utility through
21 contractual arrangements.

22 *Q. Is Station Service metered?*

23 A. Generally, no. There are few locations on the BPA system where Station Service usage
24 is metered.

1 Q. *What method did you use to forecast the quantity of Station Service used by TS?*

2 A. Because most locations on the BPA system do not have meters to measure Station
3 Service usage, TS developed a methodology to estimate the amount of energy usage at
4 BPA substations and other non-electric plant located on the Ross Complex and the Big
5 Eddy/Celilo Complex. The methodology consists of the following steps: 1) assess the
6 amount of installed transformation (measured in kVA) at all BPA substations; 2) assess
7 the historical monthly average energy usage at all substations and other non-electric
8 plant located on the Ross Complex and the Big Eddy/Celilo Complex; 3) derive an
9 average load factor from the installed transformation and historical monthly average of
10 energy usage; and 4) determine the total quantity of Station Service energy usage for the
11 BPA system. WP-10-E-BPA-08, section 10.

12 Q. *Using your methodology, what is the forecast amount of Station Service?*

13 A. The total forecast quantity of Station Service average usage that PS supplies directly to
14 BPA substations and other non-electric plant is estimated to be 6,630,610 kWh per
15 month. Multiplying this amount by 12 months yields 79,567,320 kWh per year.
16 WP-10-E-BPA-08, Table 10.1.

17 Q. *What is the revenue forecast for Station Service?*

18 A. We are forecasting revenues of \$3,955,276 per year for Station Service.

19 Q. *Why do you use the market price forecast for the risk analysis to price Station Service
20 energy?*

21 A. We price the energy used for Station Service based on the market price forecast for the
22 risk analysis, *see* WP-10-E-BPA-03A Table 18, because that is the same price forecast
23 that is used to forecast surplus sales from the PS trading floor. If the energy was not
24 being provided to TS, it would be sold on the Trading Floor. By using a consistent price

1 to allocate cost for Station Service, it provides the same revenue credit as it would if this
2 energy was not being used for Station Service.

3 *Q. Does this conclude your testimony?*

4 A. Yes.

5