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TESTIMONY of
JEREMY Z. HYDE, JON A. HIRSCH, MARGO L. KELLY,
JANET ROSS KLIPPSTEIN, and ARNOLD L. WAGNER
Witnesses for Bonneville Power Administration

SUBJECT: REVENUE FORECAST AND PURCHASED POWER EXPENSES

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5
6 **SUBJECT: REVENUE FORECAST AND PURCHASED POWER EXPENSES**

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

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

9 A. My name is Jeremy Z. Hyde, and my qualifications are contained in WP-10-Q-BPA-27.

10 A. My name is Jon A. Hirsch, and my qualifications are contained in WP-10-Q-BPA-25.

11 A. My name is Margo L. Kelly, and my qualifications are contained in WP-10-Q-BPA-32.

12 A. My name is Janet Ross Klippstein, and my qualifications are contained in WP-10-Q-
13 BPA-34.

14 A. My name is Arnold L. Wagner, and my qualifications are contained in WP-10-Q-
15 BPA-57.

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

17 A. The purpose of this testimony is to sponsor section 4 of the Wholesale Power Rate
18 Development Study (WPRDS), WP-10-E-BPA-05, and section 4 of the WPRDS
19 Documentation (Documentation), WP-10-E-BPA-05A. This testimony describes BPA's
20 revenue forecast for FY 2010-2011.

21 *Q. How is your testimony organized?*

22 A. Our testimony contains 10 sections, including this introductory section. Section 2
23 summarizes BPA's revenue forecast. Section 3 describes changes to the revenue forecast
24 since the WP-07 Supplemental Final Proposal. Section 4 describes BPA's forecast of
25 revenues from Subscription products. Section 5 describes BPA's forecast of revenues

1 from long-term contracts. Section 6 describes BPA's forecast of revenue from short-term
2 surplus sales. Section 7 describes BPA's sales of generation inputs. Section 8 describes
3 BPA's forecast of Treasury credits. Section 9 discusses BPA's other revenues. And
4 Section 10 describes BPA's forecast of balancing power purchases and the associated
5 purchased power expense.

6
7 **Section 2: Purpose of the Revenue Forecast**

8 *Q. What is the purpose of the revenue forecast?*

9 A. The revenue forecast documents the revenue BPA expects to receive during the rate
10 period, given a specified set of rates. Two revenue forecasts are prepared for this
11 proposal, one for revenue from current rates and the other for revenue from proposed
12 rates.

13 *Q. What is the purpose of the revenue forecast at current rates?*

14 A. The current rate revenue forecast documents the revenue BPA would expect to receive
15 during the rate period, FY 2010-2011, using the rates that became effective October 1,
16 2008, for FY 2009. Pursuant to U.S. Department of Energy Order RA 6120.2, the
17 revenue forecast at current rates is used to test whether the forecast revenue from existing
18 rates would satisfy BPA's revenue requirement. *See* Revenue Requirement Study,
19 WP-10-E-BPA-02, section 4.1.1.

20 *Q. What is the purpose of the revenue forecast at proposed rates?*

21 A. The revenue forecast at proposed rates documents the revenue BPA would expect to
22 receive during the rate period using the rates proposed in this Initial Proposal. This
23 revenue forecast at proposed rates is used to demonstrate that the revenue from proposed
24 rates enables BPA to recover its revenue requirement. *Id.*

1 *Q. Why is a FY 2009 revenue forecast prepared as part of this rate proposal?*

2 A. The revenue forecast for FY 2009 is used in determining the starting financial reserves
3 for the FY 2010-2011 rate period. Because financial reserves serve as one of BPA's
4 primary risk mitigation tools, it is important to have a forecast of starting reserve levels at
5 the beginning of the rate period. *See Risk Analysis and Mitigation Study, WP-10-E-*
6 *BPA-04, section 2.1, and Rodehorst et al., WP-10-E-BPA-14.*

7 *Q. What are the total revenues projected for FY 2009-2011 using current rates?*

8 A. Expected total revenues using current FY 2009 rates are \$2,380 million in FY 2009,
9 \$2,784 million in FY 2010, and \$2,885 million in FY 2011. Documentation,
10 WP-10-E-BPA-05A, Table 4.6.1, line 19.

11 *Q. Under the proposed rates, what are the total projected revenues for FY 2010-2011?*

12 A. Under the proposed rates, revenues (excluding residential exchange revenue) are
13 expected to be \$2,994 million for FY 2010 and \$3,132 million for FY 2011.
14 Documentation, WP-10-E-BPA-05A, Table 4.6.2, line 19.

15 *Q. What is the most significant difference between the revenue forecast for FY 2009 and the*
16 *forecast for FY 2010-2011?*

17 A. The most significant difference between the FY 2009 revenue forecast and the FY 2010-
18 2011 revenue forecast is increased secondary sales revenue in the latter period.

19 *Q. What is the cause of the increase in secondary sales revenue?*

20 A. The increase in secondary sales revenue is due to the inclusion of more augmentation
21 power purchases in FY 2010 and FY 2011 and higher forecast prices for secondary sales
22 than for FY 2009. Documentation, WP-10-E-BPA-05A, Tables 4.6.1 and 4.6.2.
23 Secondary sales revenue for FY 2009 is based on existing contracts only and does not
24 include forecast augmentation power purchases. The forecast of greater augmentation
25 power purchases in FY 2010-2011 results in increased secondary sales revenue because

1 of greater generation inventory. The forecast for FY 2009 secondary sales revenue
2 reflects BPA's estimate of streamflows for the remainder of FY 2009, which are currently
3 below the 70-water year average. In contrast, the revenue forecast for FY 2010-2011
4 secondary sales revenue is based on the average generation from the historical 70 water
5 years.

6
7 **Section 3: Changes Since the WP-07 Supplemental Final Proposal**

8 *Q. Has BPA's revenue forecast methodology changed since the WP-07 Supplemental*
9 *Proposal?*

10 A. While there has been no substantive change in the methodology for developing the
11 revenue forecast, one of the inputs used to calculate generation from the FCRPS has
12 changed. Rather than using the historical 50 water year (1928-1978) average to estimate
13 energy surpluses and deficits, the study is now using a historical 70 water year average
14 (1928-1998) for the study. See the testimony of Misley, *et al.*, WP-10-E-BPA-11,
15 regarding why 70 historical water years are proposed.

16
17 **Section 4: Revenue from Subscription Contracts for FY 2010-2011**

18 *Q. What are regional Subscription contracts?*

19 A. "Regional Subscription contracts" refers to those contracts that were signed with BPA's
20 regional public agency, Federal agency, investor-owned utility, and direct-service
21 industrial (DSI) customers in the year 2000 for service under the Priority Firm Power
22 (PF) and Industrial Firm Power (IP) rate schedules. Most Subscription contracts signed
23 with investor-owned utilities were invalidated by the U.S. Court of Appeals for the Ninth
24 Circuit in 2007.

1 Q. *How is revenue from Subscription contracts estimated?*

2 A. Revenue from Subscription contracts is estimated by multiplying the applicable power
3 rates by the projected billing determinants for each product: heavy load hour (HLH)
4 energy, light load hour (LLH) energy, demand at time of generation system peak (GSP
5 demand), and total retail load (TRL).

6 Q. *Where are the sales forecasts obtained?*

7 A. The sales forecasts for each billing determinant are provided by the individual utility
8 forecasts described in the Loads and Resources Study, WP-10-E-BPA-01, section 2.2.2.

9 Q. *How are the revenues calculated?*

10 A. The revenues are calculated by multiplying the forecasts of the relevant billing
11 determinants by the appropriate proposed rates. These calculations are performed by
12 BPA's Revenue Forecast Application (RFA). The results and the sales are downloaded
13 to a spreadsheet and included in the revenue forecast. Many customers have requested
14 that BPA keep the data regarding their specific utility or company confidential.

15 Q. *How can parties be certain that BPA's calculations are done properly?*

16 A. BPA's results can be replicated by the parties using the billing quantities, the rates, and
17 the corresponding revenue formulas on those lines of the revenue forecast where revenue
18 appears. The revenue formulas (which lines to add and multiply) are displayed in the left
19 hand margins. Documentation, WP-10-E-BPA-05A, Tables 4.6.1 and 4.6.2.

20 Q. *Do the results from using the formulas match the results coming from the Revenue
21 Forecast Application?*

22 A. Yes.

23

1 **Section 5: Revenue from Long-term Contracts**

2 *Q. How did BPA forecast revenue from regional and extra-regional long-term contracts?*

3 A. Revenue from regional and extra-regional long-term contracts is forecast on a contract-
4 by-contract basis in the RFA, and then sorted into the East, West, or Bulk Hub. The
5 contracts and revenues associated with long-term contracts are added together because
6 the contracts contain confidential, business-sensitive information. In addition, each of the
7 contracts has slightly different terms, unlike Subscription power sales, which are made
8 under standard terms and rates.

9 *Q. What are regional and extra-regional long-term contracts?*

10 A. Long-term contracts are those contracts for power sales, contract settlements, capacity
11 sales, pre-Subscription contracts, and contract buyouts or cashouts with a duration greater
12 than one year from the initial date of contract implementation.

13 *Q. What are the contracts for requirements sales under the FPS rate schedule?*

14 A. Pre-Subscription contracts are contract sales made under the Firm Products and Services
15 (FPS) rate schedule to requirements customers at fixed rates. There is one FPS contract,
16 which is forecast to generate \$4 million in FY 2009, \$5 million in FY 2010, and
17 \$5 million in FY 2011. There are 11 pre-Subscription contracts, which are forecast to
18 generate revenue of \$36 million in FY 2009, \$38 million in FY 2010, and \$35 million in
19 FY 2011. There are 23 IRMP contracts, which are forecast to generate revenue of
20 \$20 million in FY 2009, \$23 million in FY 2010, and \$23 million in FY 2011. The long-
21 term contracts in the East and West Hubs include irrigation rate mitigation sales made
22 under the FPS rate schedule.

23 *Q. What long-term contracts are included in the Bulk Hub totals?*

24 A. The long-term contracts included in the Bulk Hub sales are primarily with investor-
25 owned utilities. These contracts include sales made at the WNP-3 exchange rate, a

1 WNP-3 Settlement Agreement, a storage agreement for a wind project, two multiple-year
2 sales to a public utility, and two capacity sales agreements.

3
4 **Section 6: Revenue from Short-Term Surplus Sales**

5 *Q. What are short-term surplus sales?*

6 A. Short-term surplus sales are sales made from any generation that remains after all firm
7 loads are served. Sales as short as one hour to as long as one year are considered short-
8 term surplus market sales. These sales generally occur at market-based rates and are
9 made under the FPS rate schedule. For the Initial Proposal they are assumed to be
10 monthly sales that take place during either LLH or HLH. The projected 70 water year
11 average monthly energy sales, prices, and dollars used in this forecast can be found in the
12 Documentation, WP-10-E-BPA-05A, Table 4.8.1.

13 *Q. How are the short-term surplus market sales estimated?*

14 A. The surplus energy revenue included in the revenue forecast is the average of the surplus
15 energy revenues computed for 70 historical water years. The forecast of revenues from
16 short-term surplus market sales is an output of RiskMod and is explained in the Risk
17 Analysis and Mitigation Study, WP-10-E-BPA-04, and in the testimony of Rodehorst
18 *et al.*, WP-10-E-BPA-14.

19 *Q. What revenues are estimated using RiskMod?*

20 A. RiskMod is used to estimate short-term surplus market sales and revenues, balancing
21 power purchases and associated expense, and section 4(h)(10)(C) operational credits.
22 Risk Analysis and Mitigation Study, WP-10-E-BPA-04, and WPRDS Documentation,
23 WP-10-E-BPA-05A, Tables 4.5 and 4.8.2.

1 **Section 7: Revenue from Sales of Generation Inputs**

2 *Q. How did BPA forecast revenue from generation inputs?*

3 A. The expected revenue from the sale of generation inputs is forecast by and addressed in
4 the Generation Inputs Study, WP-10-E-BPA-08, section 1.
5

6 **Section 8: Treasury Credits**

7 *Q. What credits does BPA receive from the U.S. Treasury?*

8 A. BPA receives section 4(h)(10)(C) credits to offset a portion of the additional costs BPA
9 incurs due to certain operations for fish and wildlife recovery and an additional credit for
10 payments made to the Colville Tribe under provisions of a settlement agreement codified
11 in statute. These credits are treated as revenue to BPA.

12 *Q. What are the section 4(h)(10)(C) credits?*

13 A. Section 4(h)(10)(C) is a provision of the Northwest Power Act that allows BPA to be
14 reimbursed for system-wide fish and wildlife expenditures that are assignable to the non-
15 power purposes of the FCRPS. 16 U.S.C. § 839b(h)(10)(C). BPA reduces its annual
16 Treasury payment by the amount of the credit. These credits are important, because
17 additional operating expenses can vary dramatically based on the effects of water
18 conditions on non-power uses of the FCRPS. The calculation of the section 4(h)(10)(C)
19 credits is described in the Risk Analysis and Mitigation Study, WP-10-E-BPA-04,
20 section 2.1.

21 *Q. What are the amounts of the operational, expense, and capital credits that make up the*
22 *section 4(h)(10)(C) credit?*

23 A. Operational credits are expected to total \$21.4 million in FY 2010 and \$23.6 million in
24 FY 2011; expense credits are expected to total \$51.7 million in FY 2010 and
25 \$53.0 million in FY 2011; and capital credits are expected to total \$15.6 million during

1 FY 2010 and \$13.4 million in FY 2011. A summary of the 4(h)(10)(C) credits for the
2 rate period is presented in the Documentation, WP-10-E-BPA-05A, Table 4.5.

3 *Q. What is the Colville Tribe credit?*

4 A. The Confederated Tribes of the Colville Reservation Grand Coulee Dam Settlement Act,
5 P.L. No. 103-436, Nov. 2, 1994, 108 Stat. 4577, approves and ratifies the Settlement
6 Agreement entered into by the United States and the Colville Tribes related to the claims
7 for a portion of the revenues from Grand Coulee Dam, and directs BPA to carry out its
8 obligations under the Settlement Agreement.

9 The Settlement Agreement obligates BPA to make annual payments to the
10 Colville Tribes. Payments have been tied to both BPA's average prices and the amount
11 of annual generation from Grand Coulee Dam. Under the BPA Refinancing Section of
12 the Omnibus Consolidated Rescissions and Appropriations Act of 1996, P.L. No. 104-13,
13 110 Stat. 1321, BPA in return receives annual credits from the U.S. Treasury against
14 payments due the U.S. Treasury in order to defray a portion of the costs of making
15 payments to the Colville Tribes. The Colville Tribe credit is fixed by legislation at
16 \$4.6 million per year beginning in FY 2002.

17
18 **Section 9: Other Revenue**

19 *Q. How did BPA forecast other revenue components?*

20 A. Some of the revenue forecast components are based on recent experience. This is true for
21 miscellaneous revenue, downstream benefits, storage, Reserve Energy, and Irrigation
22 Pumping Power revenue. For example, downstream benefits and Irrigation Pumping
23 Power revenue are based on historical averages.

24 The remaining revenue components are forecast as follows. Energy Efficiency
25 revenue is based on budgeted activity and generally equal to expenses. Green Tag

1 revenues are based on the projected output of renewable resources. Other miscellaneous
2 revenue is an average of miscellaneous revenue over the past few years.

3 *Q. What constitutes miscellaneous revenue?*

4 A. Miscellaneous revenue is composed of several items, including reimbursement for GTA
5 low voltage delivery charges and GTA/OATT transfer services; sale of unused
6 transmission capacity; reimbursement for third-party transmission costs; contract
7 administration fees; reimbursable power expenses; credits and waivers; and
8 miscellaneous billing adjustments.

9
10 **Section 10: Power Purchases and Purchased Power Expenses**

11 *Q. What are the types of purchased power expenses, and where are they documented in the*
12 *revenue and purchased power forecast?*

13 A. The first type of purchased power that this forecast documents is system augmentation
14 needed to achieve load-resource balance on an annual average basis. WPRDS, WP-10-E-
15 BPA-05, section 4.5.1, and Documentation, WP-10-E-BPA-05A, Table 4.6.1, line 22.
16 The second type is balancing power purchases required to serve firm load obligations in
17 time periods less than one year. WPRDS, WP-10-E-BPA-05, section 4.5.2, and
18 Documentation, WP-10-E-BPA-05A, Table 4.8.2.

19 *Q. Are any elements of the revenue forecast likely to change prior to the Final Proposal?*

20 A. Yes. We will update our forecast of all components of FY 2009 revenue and reflect
21 changes in purchase power expenses to reflect our most current outlook for revenues
22 based on billing data, runoff, and market conditions as BPA has in past rate proposals.
23 This will include the revenue forecast for FY 2009, and will therefore affect the level of
24 expected reserves at the beginning of FY 2010. Section 4 of the WPRDS will be updated

1 for the Final Proposal to reflect the various changes to the individual elements that
2 comprise the revenue forecasts and purchase power expenses for FY 2010-2011.

3 *Q. Does this conclude your testimony?*

4 A. Yes.

5