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TESTIMONY OF
PAUL T. KAPTUR, BYRON G. KEEP, WILLIAM J. DOUBLEDAY,
AND RICHARD H. CLARK
Witnesses for Bonneville Power Administration

SUBJECT: Section 7(b)(2) Rate Test Study

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5
6 **SUBJECT: SECTION 7(b)(2) RATE TEST STUDY**

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

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

9 A. My name is Paul T. Kaptur. My qualifications are stated in WP-02-Q-BPA-33.

10 A. My name is Byron G. Keep. My qualifications are stated in WP-02-Q-BPA-34.

11 A. My name is William J. Doubleday. My qualifications are stated in WP-02-Q-BPA-17.

12 A. My name is Richard H. Clark. My qualifications are stated in WP-02-Q-BPA-13.

13 *Q. Please state the purpose of your testimony.*

14 A. The purpose of this testimony is to sponsor the Section 7(b)(2) Rate Test Study,
15 WP-02-E-BPA-06, and Documentation, WP-02-E-BPA-06A.

16 *Q. Please summarize your testimony.*

17 A. This testimony will discuss the implementation of the rate test established by
18 section 7(b)(2) of the Pacific Northwest Electric Power Planning and Conservation Act
19 (Northwest Power Act), 16 U.S.C. §839e(b)(2). Section 2 discusses the Section 7(b)(2)
20 Implementation Methodology. Section 3 discusses the determination of the test period.
21 Section 4 discusses the change in the model used to run the rate test from the Supply
22 Pricing Model to the Rate Analysis Model. Section 5 discusses the financing benefits
23 analysis performed by Bonneville Power Administration's (BPA) financial advisor,
24 Sutro & Co. Incorporated, and the application of that analysis to the rate test. Section 6
25 discusses resource acquisitions in the 7(b)(2) Case. Section 7 discusses the identification of
26 non-dedicated resources in the 7(b)(2) Case. Section 8 discusses the treatment of

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1 conservation in the rate test. Section 9 discusses the reserve benefits resulting from the
2 ability to restrict direct service industrial customer (DSI) loads. Finally, section 10
3 summarizes the results of the rate test and the primary reasons for the results.

4 **Section 2: The 7(b)(2) Rate Test**

5 *Q. What is the 7(b)(2) rate test?*

6 A. Section 7(b)(2) of the Northwest Power Act requires that BPA perform a "rate test" in each
7 rate proceeding or "when setting rates" after July 1, 1985. The rate test ensures that
8 BPA's preference customers' firm power rates applied to their general requirements are no
9 higher than rates calculated using five specific assumptions that remove certain effects of
10 the Northwest Power Act. See Section 7(b)(2) Implementation Methodology Record of
11 Decision (Implementation Methodology) (b-2-84-F-02).

12 *Q. How was the 7(b)(2) rate test performed for BPA's 2002 initial rate proposal?*

13 A. The rate test involves the projection and comparison of two sets of wholesale power rates
14 for the general requirements loads of BPA's public body, cooperative, and Federal agency
15 customers (7(b)(2) or preference customers). The two sets of rates are: (1) a set for the
16 rate filing test period (FY 2002-FY 2006) and the ensuing 4 years (FY 2007-FY 2010)
17 assuming that section 7(b)(2) is not in effect (Program Case rates); and (2) a set for the
18 same period taking into account the five assumptions listed in section 7(b)(2) (7(b)(2)
19 Case rates). The 7(b)(2) Case rates are modeled exactly the same as the Program Case
20 rates except for the five assumptions listed in section 7(b)(2). The five assumptions used
21 to model the 7(b)(2) Case are:

- 22 1. Within or adjacent DSI loads are transferred to public utilities at the start of the
23 7(b)(2) rate test period; the remaining DSI loads are transferred to investor-owned
24 utilities (IOUs) as BPA/DSI pre-Northwest Power Act contracts expire.
- 25 2. No section 5(c) Residential Exchange Program takes place.

26

1 3. Additional resources of three specified types serve the loads of 7(b)(2) customers
2 when Federal Base System (FBS) resources are exhausted.

3 4. The DSI reserve benefits under provisions of the Northwest Power Act are not
4 available in the 7(b)(2) Case. The 7(b)(2) Case rates will reflect this increased cost to the
5 7(b)(2) customers.

6 5. Financing benefits under provisions of the Northwest Power Act are not available
7 in the 7(b)(2) Case. The 7(b)(2) Case rates will reflect this increased resource cost due to
8 the absence of BPA financial backing if additional resources are required to serve 7(b)(2)
9 customers.

10 For a discussion of the development of the Program and 7(b)(2) Case rates, *see* Section
11 7(b)(2) Rate Test Study, WP-02-E-BPA-06, and Documentation, WP-02-E-BPA-06A.

12 *Q. What was done after the two sets of rates were developed?*

13 A. Certain specified costs allocated pursuant to section 7(g) of the Northwest Power Act were
14 subtracted from the Program Case rates. Next, the nominal rate for each year was
15 discounted to the test year of the relevant rate case, in this case FY 2002. The discounted
16 Program Case rates were averaged, as were the 7(b)(2) Case rates. Both averages were
17 rounded to the nearest tenth of a mill for comparison. Because the average Program Case
18 rate was higher than the average 7(b)(2) Case rate, the rate test triggered, and an
19 adjustment to the preference customers' Priority Firm Power (PF-02) rate was required.

20 *Q. Was the 7(b)(2) rate test conducted in generally the same manner for the 2002 initial
21 proposal as it was in past rate filings?*

22 A. Yes, however, BPA used a different computer model to conduct the test for the
23 2002 initial proposal. This model is discussed in greater detail below. FBS resources are
24 insufficient to serve all of the 7(b)(2) customers' loads in the 7(b)(2) Case. The
25 acquisition of additional resources in the 7(b)(2) Case is discussed in section 6 of this
26 testimony.

1 **Section 3: Test Period**

2 *Q. Please describe the determination of the test period for the 7(b)(2) rate test.*

3 A. In BPA's 2002 initial proposal, BPA developed a 5-year rate period. The 7(b)(2)
4 Implementation Methodology states that the test period will consist of the test year for the
5 relevant rate case plus the ensuing 4 years. In developing the rates in BPA's initial
6 proposal, BPA used all 5 years as the test period, e.g., a 60-month test period. Therefore,
7 since the test period is 5 years, BPA used those 5 years (FY 2002-FY 2006) plus the
8 ensuing 4 years (FY 2007-FY-2010) as the 7(b)(2) rate test period.

9 **Section 4: Change From Supply Pricing Model To Rate Analysis Model**

10 *Q. What type of computer model is required to conduct the 7(b)(2) rate test?*

11 A. In order to develop adequately the projections that incorporate the assumptions outlined in
12 section 7(b)(2), the computer model must have a structure that allows explicit
13 incorporation of the 7(b)(2) assumptions. In addition, the model must be capable of
14 producing projections of annual power costs over the 9-year test period. These
15 requirements indicate that a model that simulates BPA's ratemaking processes should be
16 used.

17 *Q. What computer model has BPA previously used to conduct the 7(b)(2) rate test?*

18 A. In BPA's 1985 wholesale power rate case, where BPA first conducted the 7(b)(2) rate
19 test, BPA used the Supply Pricing Model (SPM). BPA also used the SPM in subsequent
20 wholesale power rate cases, including the 1996 rate case. BPA now proposes to use the
21 Rate Analysis Model (RAM) to conduct the test.

22 *Q. Why does BPA propose to use the RAM to conduct the rate test?*

23 A. By the time of BPA's 1996 wholesale power rate case, desktop computer technology, in
24 both hardware and software, had improved to a point that a spreadsheet-based version of
25 the RAM could be used to model BPA's ratemaking process and calculate posted rates.
26 In that same year, the 7(b)(2) rate test was performed by the SPM. The SPM is a large

1 FORTRAN model that BPA ran on a mainframe computer. The SPM is designed to
2 simulate the ratemaking process in the RAM. During each rate case, time was spent in
3 calibrating the SPM to the RAM, as well as maintaining and updating the FORTRAN
4 model. The efficiencies and relative ease of operations experienced with the RAM in
5 1996 led to the development of two new versions of the original RAM, one to perform
6 the Program Case of the 7(b)(2) rate test (RAM-prog) and another to run the 7(b)(2) Case
7 (RAM-7b2). These two versions of the RAM, along with a Residential Exchange
8 Program cost model (RESEXRAM) and an input file to hold and organize the data
9 needed by the RAM models, have made conducting the 7(b)(2) rate test much more
10 efficient and user friendly.

11 *Q. Please provide a brief description of how the RAM works.*

12 A. The RAM follows BPA's rate directives by determining the costs associated with the
13 three resource pools (FBS resources, Residential Exchange resources, and new resources)
14 used to serve sales load and then allocating those costs to the rate pools (PF, IP, and NR).
15 After the initial allocation of costs, the Northwest Power Act requires that some rate
16 adjustments be made, such as those described in section 7(b) and section 7(c) of the Act.
17 The RAM performs these rate adjustments in its Rate Design Study (RDS) section. The
18 RDS section of the RAM concludes with the calculation of "Rate Design Step" rates.

19 The RAM also includes a Subscription Step section to calculate the remaining
20 posted rates for the implementation of the Subscription Strategy. The Subscription Step
21 section takes the results of the Rate Design Step and adjusts them by the added credits
22 and costs associated with BPA's Subscription Strategy to produce five-year average rates
23 for the rate period. The 7(b)(2) rate test does not use the Subscription Step section of the
24 RAM because it assumes the IOUs will continue to participate in the Residential
25 Exchange Program.

26

1 Q. Please briefly describe the RAM models themselves.

2 A. In order to run a 7(b)(2) rate analysis with RAM, five Excel spreadsheets must be open.
3 The first two are the Program Case RAM (RAM_Prog.xls) and the 7(b)(2) Case RAM
4 (RAM_7b2.xls). These large spreadsheet models are organized into many worksheets
5 that perform specific steps in determining resource costs, allocating those costs to rate
6 pools, and adjusting those allocated costs to calculate posted rates. These models
7 calculate diurnally differentiated energy rates by month. Nine years worth of data is
8 used. The data used in a particular analysis can be for an individual year or for a group of
9 years. In conducting the 7(b)(2) rate test, individual PF rates for each of the nine test
10 period years are calculated. Once the 7(b)(2) rate test trigger is calculated and
11 incorporated into the RAM, five years of data are run through the models to produce
12 average rates for the five-year rate period.

13 The third large spreadsheet is a model that calculates the cost of the Residential
14 Exchange Program (RESEXRAM02.xls). This model determines which exchanging
15 utilities are actively exchanging and which are in deeming status. See Boling, *et al.*,
16 WP-02-E-BPA-30. Also, in lieu sales assumptions and in lieu resource cost assumptions
17 can be included. *Id.* The gross cost of the Residential Exchange Program (the cost of
18 Residential Exchange Program resources) is calculated, as well as the gross revenue from
19 selling power at the PF Exchange rate. The net cost of the Residential Exchange
20 Program, the difference between gross costs and gross revenues, is also calculated. In the
21 7(b)(2) rate test, the gross cost of the Residential Exchange Program, determined in an
22 iterative process between RAM_Prog.xls and RESEXRAM02.xls, is used in the
23 calculation of the Program Case PF rate. The net cost of the Residential Exchange
24 Program, determined in a separate iterative process between RAM_Prog.xls and
25 RESEXRAM02.xls conducted after the 7(b)(2) rate test, is the amount BPA must recover
26 from rate classes other than the PF Exchange Program rate class.

1 The fourth spreadsheet calculates energy allocation factors (EAFs) used by the
2 RAM models to allocate costs between rate classes. This spreadsheet, EAF_05.xls, uses
3 data developed in the power load/resource balance as well as Residential Exchange
4 Program load/resource data from RESEXRAM02.xls. As the iterations between
5 RAM_Prog.xls and RESEXRAM02.xls occur, it is possible for the Residential Exchange
6 Program load/resource amount to change due to the interactions of the “in lieu”
7 assumption, the in lieu resource cost, and the calculated PF Exchange Program rate. If
8 the Residential Exchange Program load/resource amount changes during the iterations,
9 that information must be reflected in the RAM model, by way of the EAF_05.xls
10 spreadsheet.

11 The fifth spreadsheet is an Input file (INPUT.xls), which links to many other data
12 files. This spreadsheet collects cost data, sales forecast data, revenue credit data, and all
13 other data needed to run analyses with the RAM models. The Input file helps to ensure
14 that the data used to calculate the Program Case rates in the 7(b)(2) rate test are identical
15 to those used in the calculation of the five year average rates for the rate filing. In
16 addition, the Input file ensures that data in the Program Case RAM are the same as those
17 used in the 7(b)(2) Case RAM when appropriate and that the data differ when the
18 five 7(b)(2) assumptions require them to be different. The Input file also uses purchase
19 power costs to calculate the gross cost of system augmentation and the net cost of the
20 Subscription Strategy inventory solution.

21 *Q. Are the actual models that BPA used to develop its 2002 initial wholesale rate proposal*
22 *also used to conduct the 7(b)(2) rate test?*

23 *A. Yes. The Program Case RAM is used for both the Program Case of the 7(b)(2) rate test*
24 *as well the calculation of posted rates for the 2002 wholesale power rate proposal. For*
25 *the 7(b)(2) Program Case rates, the RAM groups costs, credits, and sales data by year and*
26 *calculates individual rates for each of the nine test period years. To calculate average*

1 rates for the five-year rate period, RAM groups five years (60 months) worth of costs,
2 credits, and sales together.

3 *Q. How are those portions of the Section 7(b)(2) Implementation Methodology that*
4 *determine how the 7(b)(2) projections are made incorporated into RAM?*

5 A. The 7(b)(2) version of the RAM differs from the Program Case version of the RAM by the
6 five section 7(b)(2) assumptions:

7 (1) The within or adjacent DSI loads are added to the PF sales forecast, and no IP
8 load or rate class is assumed.

9 (2) No section 5(c) Residential Exchange Program takes place, and no PF Exchange
10 load or rate class is assumed.

11 (3) A section 7(b)(2) resource stack with resources sorted from least to most costly
12 has been constructed to serve 7(b)(2) customers after the FBS is exhausted. In addition,
13 PF sales forecasts are increased by forecasted programmatic conservation and annual
14 conservation programs are included in the 7(b)(2) resource stack.

15 (4) Reserves provided by the DSIs are included as an increased cost to the
16 7(b)(2) customers.

17 (5) The cost of resources reflects that financing benefits under provisions of the
18 Northwest Power Act are not available in the 7(b)(2) Case.

19 *Q. Which of the 7(b)(2) assumptions require input changes?*

20 A. The first two assumptions require that the sales forecast for the 7(b)(2) Case is different
21 than that used in the Program Case. PF sales are increased by the forecasted
22 programmatic conservation savings and the within or adjacent DSI load is also added. In
23 addition, no Residential Exchange load is assumed. The fourth assumption requires that
24 additional costs be input in the 7(b)(2) Case to account for the loss of reserves provided
25 by the DSIs.

26

1 *Q. How was the amount of within or adjacent DSI load determined?*

2 A. In the Program Case of the 7(b)(2) rate test, BPA forecasts that 990 aMW will be sold to
3 the IP rate class. BPA has determined that the within or adjacent IP rate class load is
4 85.6 percent of the total IP rate class load. Therefore, the IP class load assumed to be
5 served by 7(b) customers in the 7(b)(2) Case is 85.6 percent of 990 aMWs.

6 *Q. Why have the additional costs associated with the loss of reserves provided by the DSIs in
7 the 7(b)(2) Case been reduced?*

8 A. BPA's Power Business Line (PBL) has made no plans to purchase Supplemental
9 Reserves from the DSIs or any other provider. Therefore, the IP rate has not been
10 credited with the value of Supplemental Reserves provided by the DSIs. In the
11 calculation of the DSI net margin there is no value of reserves (VOR) component.
12 See Ebberts, WP-02-E-BPA-22. The IP rate calculated in this rate case applies to an
13 undelivered product. However, the 7(b)(2) rate test is conducted assuming delivered
14 products. Therefore, an assumption about the value that the Transmission Business Line
15 (TBL) would put on Stability Reserves provided by the DSIs is necessary for the
16 7(b)(2) rate case. This value will be determined in the TBL rate proceeding and
17 presumably will be a credit to the DSI transmission rate. An estimate of \$2.5 million per
18 year was made as the value of the Stability Reserves provided by the DSIs. This amount
19 was added as an additional expense to the 7(b)(2) Case.

20 *Q. Which 7(b)(2) assumptions require modifications or supplements to the RAM code?*

21 A. The third 7(b)(2) assumption, as noted previously, requires the addition of a 7(b)(2)
22 resource stack to the 7(b)(2) version of the RAM. Logic was added to determine how
23 many resources would come on-line to serve the 7(b)(2) customer loads and how much
24 those added resources would cost. The cost of the additional resources was added to the
25 Cost of Service Analysis (COSA) tables in the 7(b)(2) Case RAM. Since the resources
26

1 that come on-line may produce additional surplus power, logic was added to account for
2 the additional revenues.

3 *Q. How are the annual costs of additional resources calculated in the 7(b)(2) Case RAM?*

4 A. The capital costs, operations and maintenance costs, and fuel costs for each resource are
5 included in the 7(b)(2) resource stack in 1980 dollars. The cumulative total cost of the
6 needed resources is determined as the resources are brought on-line. The cumulative total
7 in 1980 dollars is then escalated to the current year for each year of the test period.

8 *Q. Has BPA compared the results of a 7(b)(2) rate test using RAM with the results of a rate
9 test using SPM?*

10 A. Yes. BPA ran a 7(b)(2) rate test with the RAM models using the data from BPA's 1996
11 wholesale power rate case. The results were very similar to the results from the SPM.
12 The 7(b)(2) rate test trigger that was calculated using RAM equaled the trigger calculated
13 using the SPM in 1996.

14 **Section 5: Financing Analysis**

15 *Q. What is the financing analysis?*

16 A. Section 7(b)(2)(E) of the Northwest Power Act directs the Administrator to assume for
17 purposes of the rate test that "quantifiable monetary savings . . . resulting from reduced
18 public body and cooperative financing costs . . . were not achieved." The financing
19 analysis determines resource financing costs associated with different resource types
20 identified in section 7(b)(2) of the Northwest Power Act for public agency and other
21 resource sponsors with and without a BPA acquisition contract. The financing analysis
22 was prepared under contract by Sutro & Co. Incorporated and is included in the
23 Section 7(b)(2) Rate Test Study, WP-02-E-BPA-06, Appendix A.

24 *Q. Please describe the conclusions of the financial analysis.*

25 A. The analysis has three primary conclusions. First, for generation or conservation
26 resources assumed to be acquired by a public agency in the 7(b)(2) Case, the public

1 agency's borrowing rates without a BPA acquisition contract would be 13 basis points
2 higher than with a BPA contract. In addition, BPA-sponsored conservation under the
3 Program Case is 4 basis point lower than the 7(b)(2) Case without BPA backing. Second,
4 in the Program Case, BPA's programmatic conservation acquisitions are financed at
5 BPA's Treasury borrowing rate. However, in the 7(b)(2) Case, the analysis concludes
6 that the public agency has historically borrowed at tax-exempt borrowing rates that are
7 higher than the Program Case interest rate for bonds BPA would issue to the Treasury.
8 This interest rate differential between the Program Case rate and the public agency
9 tax-exempt rate in the 7(b)(2) Case results in a disbenefit for public borrowing under the
10 7(b)(2) Case. Third, the financial analysis also derives estimates of interest rate
11 differentials with and without a BPA acquisition contract for named resources, such as
12 Cowlitz Falls, and for resources acquired from non-7(b)(2) customers, such as resources
13 from independent power producers. These conclusions are found in the Section 7(b)(2),
14 Rate Test Study, WP-02-E-BPA-06, Appendix A, Executive Summary.

15 *Q. Was the financing analysis conducted using the same methodology that was used in*
16 *BPA's 1996 rate case?*

17 *A. Yes. Except for the elimination of the financing analysis for the Value of Reserves, the*
18 *methodology used to conduct the financing analysis has not changed since BPA's 1985*
19 *rate case. In previous rate cases, BPA's financial advisor performed the analysis. BPA's*
20 *current financial advisor, Sutro & Co. Incorporated., performed the analysis for this rate*
21 *case. Assumptions were updated when necessary to estimate interest rate differentials for*
22 *the different classes of resources identified in the 7(b)(2) Case.*

23 *Q. How were the results of the financing analysis applied in the 7(b)(2) rate test?*

24 *A. If resources were needed in addition to FBS resources to serve the 7(b)(2) customers'*
25 *loads, the interest rate differential was factored into the cost of the additional resources.*
26 *For generation resources, billing credits, and competitive resource acquisitions, the*

1 additional 13 basis point interest rate differential was applied. For BPA-sponsored
2 conservation, the additional 4 basis points disbenefit was applied.

3 **Section 6: Resource Acquisitions**

4 *Q. Were 7(b)(2) customer loads the same in the Program and 7(b)(2) Cases?*

5 A. Yes. The initial loads used in the 7(b)(2) Case were the same as those used in the
6 Program Case. However, as provided in the Implementation Methodology, 7(b)(2) Case
7 utility and DSI loads were increased by the amount of actual or planned conservation
8 included in developing the Program Case loads. In addition, the total within or adjacent
9 DSI loads were assumed in the 7(b)(2) Case to be served by the 7(b)(2) customers. No
10 DSI loads were served in the 7(b)(2) Case by BPA from the FBS because all
11 pre-Northwest Power Act contracts expired prior to the rate test period.

12 *Q. Were resources needed in addition to FBS resources to serve the 7(b)(2) customers' loads
13 in the 7(b)(2) Case?*

14 A. Yes. Additional resources were needed to serve the 7(b)(2) customer loads from the start
15 of the test period.

16 *Q. How was the amount of additional resources needed to serve the 7(b)(2) customers' loads
17 in the 7(b)(2) Case calculated?*

18 A. The RAM models do not conduct their own load/resource balance calculations. The
19 Program Case RAM uses the load/ resource balance for the nine years of the 7(b)(2) rate
20 test period produced by the Loads and Resources Study, WP-02-E-BPA-01. The
21 7(b)(2) Case load/resource balance is calculated from the Program Case RAM load/
22 resource balance. The amount of Program Case RAM load that is served with FBS
23 resources is determined and an assumption is made that the same amount of load could be
24 served by that same amount of FBS resources in the 7(b)(2) Case. The 7(b)(2) Case load
25 not served by existing FBS is determined and resources from the 7(b)(2) resource
26

1 stack are selected on a least cost basis to serve the load. See Section 7(b)(2) Rate Test
2 Study Documentation, WP-02-E-BPA-06A, Table 7B2_Resource_01.

3 *Q. How were resources added to serve the 7(b)(2) Case load?*

4 A. As determined in the Implementation Methodology, three types of additional resources
5 may be added to serve 7(b)(2) customer loads. They are: Type 1, actual and planned
6 resource acquisitions by BPA from 7(b)(2) customers consistent with the Program Case;
7 Type 2, existing 7(b)(2) customer resources not currently dedicated to their regional load;
8 and Type 3, generic resources at the average cost of actual and planned resource
9 acquisitions by BPA from non-7(b)(2) customers consistent with the Program Case.

10 A cost was calculated for each of the first two types of resources. Type 1 and
11 Type 2 resources were stacked together in least-cost-first order in discrete increments
12 reflecting the actual size of the resource or the increment actually acquired by BPA.
13 They were assumed to come on-line in the order in which they were stacked to meet the
14 general requirements of the 7(b)(2) customers when FBS resources are exhausted. When
15 conservation or a billing credit resource was the least-cost resource selected, the amount
16 (megawatts) of conservation or billing credit was treated as a reduction to the
17 7(b)(2) Case loads consistent with its treatment in the Program Case.

18 *Q. Were any generic (Type 3) resources required for the rate test?*

19 A. No.

20 **Section 7: Non-Dedicated Resources**

21 *Q. Has BPA identified any Type 2 resources (existing 7(b)(2) customer resources not
22 currently dedicated to their regional loads)?*

23 A. Yes. BPA counsel has advised that section 7(b)(2)(D)(ii) of the Northwest Power Act
24 provides that, in addition to FBS resources, 7(b)(2) customers' loads in the 7(b)(2) Case
25 are met with such customers' "resources not committed to load pursuant to section 5(b)."
26 BPA's Legal Interpretation of Section 7(b)(2) at page 16 also refers to "resources owned

1 or purchased by the 7(b)(2) customers, and not dedicated to their own loads.” In
2 reviewing these resources for BPA’s 1996 rate case, BPA identified resource capability
3 associated with the Mid-Columbia dams (Wells, Rocky Reach, Rock Island, Wanapam,
4 and Priest Rapids) owned by 7(b)(2) customers (Douglas PUD, Chelan PUD, and Grant
5 PUD) that was not used to meet their own loads.

6 *Q. Prior to the 1996 rate case, had resource capability associated with the Mid-Columbia*
7 *dams been included in the 7(b)(2) resource stack?*

8 A. Yes. A small amount of power had been included in the 7(b)(2) resource stack. This was
9 power from the Mid-Columbia dams that was assumed to be non-dedicated because it
10 was sold outside the region.

11 *Q. Why did the amount of resource capability associated with the Mid-Columbia dams*
12 *included in the 7(b)(2) resource stack change in BPA’s 1996 rate case?*

13 A. Prior to the 1996 rate case, BPA had mistakenly assumed that the distinction between a
14 sale to an end-user that was inside or outside the region was relevant to the inclusion of a
15 resource in the 7(b)(2) resource stack. In the 1996 rate case, BPA included power from
16 the Mid-Columbia dams that was sold to regional investor-owned utilities as non-
17 dedicated resources for 7(b)(2) rate test purposes. This power was produced by resources
18 owned by 7(b)(2) customers and the power was not dedicated to their own loads. The
19 resource amounts and costs are documented in the 7(b)(2) resource stack. *See* 7(b)(2)
20 Rate Test Study, Documentation WP-02-E-BPA-06A , Table 7b2 Resource_03.

21 *Q. Has BPA changed the way it determines the cost of the Mid-Columbia resources?*

22 A. Yes. In the 1996 rate case, information from the annual reports of the PUDs was used to
23 estimate the mills/kWh cost of the resources. For the current rate case, data was taken
24 from the Power Dat Data Base. The Mid-Columbia resource costs were determined on a
25 total resource basis, that is, the projects were priced on the basis of the total capital and
26 annual operations and maintenance costs for each resource. Individual utility overhead

1 costs were not used. The costs for the respective Mid-Columbia resources are listed in
2 the Section 7(b)(2) Rate Test Study Documentation, WP-02-E-BPA-06A.

3 *Q. Why did BPA use the Power Dat Data Base as a source for estimating the costs of the*
4 *Mid-Columbia?*

5 A. The Power Dat Data Base accumulates information on resources by total plant. In prior
6 rate cases the information on the Mid-Columbia plants was based upon reports on plant
7 costs from utilities that owned shares of the individual plants. The cost of any given plant
8 could vary due to the reporting by each utility. The Power Dat information allowed BPA
9 to access consistent information for each plant.

10 **Section 8: Conservation**

11 *Q. Please describe the treatment of continuing, or “legacy,” conservation programs in*
12 *conducting the 7(b)(2) rate test.*

13 A. Legacy conservation programs are treated in the same manner in BPA’s current
14 7(b)(2) rate test as conservation programs have been treated in past rate cases. The cost of
15 legacy conservation programs is included in the calculation of the Program Case rates.
16 Legacy conservation, as a cost under section 7(g) of the Northwest Power Act, is then
17 removed from the Program Case PF rates before the comparison to the 7(b)(2) Case
18 PF rates is made. In the 7(b)(2) Case, legacy conservation programs are not included as
19 power resources in the resource stack. These legacy programs pay the annual costs of
20 existing conservation programs and do not yield any additional net energy savings.

21 *Q. Are there any additional types of conservation costs that must be addressed?*

22 A. Yes. There are also costs related to BPA’s Energy Efficiency activity and to the proposed
23 Conservation and Renewables Discount. Costs to support BPA’s Energy Efficiency
24 activity are treated as 7(g) conservation costs in the 7(b)(2) rate test. In addition to the
25 cost of conservation, BPA’s Energy Efficiency activity generates revenues. The
26

1 estimated revenues from the Energy Efficiency activity have been assigned as credits
2 against costs. In this way these revenues reduce the rates of all rate pools.

3 *Q. Please describe BPA's treatment of the cost of BPA's proposed Conservation and*
4 *Renewables Discount.*

5 A. In the 7(b)(2) rate test, BPA treats the costs associated with the Conservation and
6 Renewables Discount as section 7(g) costs, that is, the costs are included in the
7 calculation of posted rates in the Program Case and are then removed from the
8 Program Case PF rates before the comparison to the 7(b)(2) Case PF rates is made. In the
9 7(b)(2) Case, Conservation and Renewable Discount program resources are not included
10 as power resources in the resource stack. The Conservation and Renewables Discount
11 program does not yield any additional resource-like net energy savings. *See Esvelt, et al.,*
12 *WP-02-E-BPA-33.*

13 **Section 9: DSI Reserve Benefits and Margin**

14 *Q. Were the DSI reserve benefits and margin analysis treated in the same manner as in*
15 *BPA's 1996 rate filing?*

16 A. Yes. Although the work on the DSI value of reserves and margin has been updated, these
17 updates did not require a methodological change in the performance of the 7(b)(2) rate
18 test. For a discussion of the value of reserves, *see McRae, et al., WP-02-E-BPA-29.* For
19 a discussion of the margin, *see Ebberts, et al., WP-02-E-BPA-22.*

20 **Section 10: Summary of 7(b)(2) Rate Test**

21 *Q. What are the results of BPA's 7(b)(2) rate test?*

22 A. The 7(b)(2) rate test triggers and 7(b)(2) customers are eligible for rate protection.

23 *Q. What are the major reasons for the increase in the amount of the trigger compared to*
24 *BPA's 1996 rate case?*

25 A. BPA's costs allocated to posted rates after revenue credits have remained flat since
26 BPA's 1996 rate case, while exchanging utilities' ASCs have increased over time. This

1 increases the Program Case rates relative to the 7(b)(2) Case rates. In addition, the value
2 of reserves credit for the DSIs has diminished. This decreases the 7(b)(2) Case rates
3 relative to the Program Case rates.

4 *Q. Does this conclude your testimony?*

5 *A. Yes.*

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