

Exhibit No. ____ (CTM-1T)
Docket UE-130043
Witness: Christopher T. Mickelson

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PACIFIC POWER & LIGHT
COMPANY, d/b/a PACIFICORP,

Respondent.

DOCKET UE-130043

TESTIMONY OF

CHRISTOPHER T. MICKELSON

STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

*Rule 6 and Schedule 300 Service Charges,
Uncollectible Expense, Conversion Factor,
Electric Cost of Service, Revenue Allocation, and Rate Design*

June 21, 2013

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LIST OF EXHIBITS

- Exhibit No. ____ (CTM-2), Adjustment 3.8, Schedule 300 Fee Charges
Exhibit No. ____ (CTM-3), Adjustment 4.12, Uncollectible Expense
Exhibit No. ____ (CTM-4), Electric Cost of Service
Exhibit No. ____ (CTM-5), Electric Revenue Allocation and Rate Design
Exhibit No. ____ (CTM-6), Electric Bill Frequency and Histogram Analysis
Exhibit No. ____ (CTM-7), Language Revisions to Rule 6
Exhibit No. ____ (CTM-8), Language Revisions to Schedule 300

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Christopher Thomas Mickelson. My business address is the Richard Hemstad Building, 1300 S. Evergreen Park Drive S.W., Olympia, Washington 98504.

Q. By whom are you employed and in what capacity?

A. I am employed by the Washington Utilities and Transportation Commission (“Commission”) as a Senior Regulatory Analyst in the Energy Section of the Regulatory Services Division. Among other duties, I am responsible for analyzing financial, accounting, and revenue allocation and rate design issues in general rate cases, accounting petitions, and other tariff filings, as they pertain to the electric and natural gas companies under the jurisdiction of this Commission.

Q. How long have you been employed by the Commission?

A. I have been employed by the Commission since June 2007.

Q. Would you please state your educational and professional background?

A. I graduated from the University of Washington in 2002, receiving a Bachelor of Arts degree in Business Administration. Since joining the Commission, I have attended several regulatory courses, including the 49th Annual National Association of

1 Regulatory Utility Commissioners Regulatory Studies Program held at Michigan
2 State University in East Lansing, Michigan.

3 I testified on Aldyl-A pipe replacement, electric and natural gas cost of
4 services, revenue allocations and rate designs in Avista Corporation's ("Avista")
5 general rate case ("GRC"), Dockets UE-120436 and UG-120437. In addition, I
6 testified on natural gas revenue requirement, revenue allocation and rate design in
7 Puget Sound Energy, Inc.'s ("PSE") GRC, Docket UE-111048 and UG-111049. I
8 was the lead analyst in numerous other tariff applications, including GRCs of
9 Murrey's Disposal Company, Inc., Docket TG-090097; American Disposal
10 Company, Inc., Docket TG-090098; Washington Water Service Company, Docket
11 UW-090733; and Waste Management of Washington, Inc., Dockets TG-091933 and
12 TG-101080.

13 I have participated in the development of Commission rules, prepared
14 detailed statistical studies for use by commissioners and other Commission
15 employees, and examined utility and transportation company reports for compliance
16 with Commission regulations. I have also presented Staff recommendations at
17 numerous open public meetings.

18 19 II. SCOPE AND SUMMARY OF TESTIMONY

20
21 **Q. What is the purpose of your testimony?**

22 A. I present Staff's recommendations on the following proposals of Pacific Power &
23 Light Company, d/b/a PacifiCorp ("PacifiCorp" or "the Company"):

- 1 • Contested Adjustment 4.12, Uncollectible Expense (Steven R. McDougal).
- 2 • Net-to-Gross Conversion Factor (Steven R. McDougal).
- 3 • The electric cost of service study (C. Craig Paice).
- 4 • Revenue allocation and rate design (Joelle R. Steward).
- 5 • Revisions to Rule 6 and Schedule 300 regarding service charges and the revenue
- 6 impact of those revisions as reflected in Adjustment 3.8, Schedule 300 Fee
- 7 Charge (Barbara A. Coughlin).

8

9 **Q. Please summarize your recommendations with respect to Adjustment 4.12,**

10 **Uncollectible Expense.**

11 A. Staff revised the Company's adjustment in two ways: (1) we restated to a 5-year

12 period to normalize the uncollectible expense; and (2) we proform the uncollectible

13 expense to reflect normalized revenues. This assures that the results of operations

14 reflect the normal uncollectible expense associated with bad debts over time.

15

16 **Q. Please summarize your recommendations with respect to Net-to-Gross**

17 **Conversion Factor.**

18 A. Staff revised the Company's net-to-gross conversion factor ("conversion factor") in

19 two ways: (1) we reflect Staff's uncollectible expense; and (2) we remove the

20 deduction of uncollectible expense from the calculation of Washington State utility

21 tax. This assures that the conversion factor is correct when used to adjust the net

22 operating income deficiency for revenue sensitive items and federal income tax to

23 determine the total revenue deficiency.

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Q. Please summarize your recommendations for the electric cost of service study.

A. Overall the Company’s electric cost of service study presents fairly the costs imposed on the system by customers served on each rate schedule.

However, there are three improvements that Staff recommends consistent with Staff witness Kendra A. White’s testimony regarding the appropriate West Control Area (“WCA”) allocation factors used to develop Washington per books amounts, but based on the cost of service level. The Commission should order the Company to prepare a cost of service study in its next full GRC that reflects these improvements.

First, in order to develop the peak credit methodology used to weight generation- and transmission-related allocation factors, the Company used the highest hourly demand (“Load Factor”) for the WCA. The Company should, instead, use the demand value derived by averaging the highest 100 winter demand hours and highest 100 summer demand hours (“200 CP”) for that purpose.

Second, the Company allocated wind plants, related expenses, and wind power contracts based on a peak-credit factor. These costs should, instead, be allocated based on the resource’s contribution to peak capacity.

Finally, the Company allocated corporate account managers rather than assigning them directly.¹ These assigned corporate account managers for customers with loads over 750kW should, instead, be directly assigned to Schedule 48T, since only customers on Schedule 48T receive this service.

1 **Q. Please summarize your recommendations on revenue allocation and rate design.**

2 A. Staff proposes a revenue allocation consistent with principles of cost causation and
3 other factors the Commission has traditionally considered such as gradualism,
4 fairness and rate stability. Staff's revenue allocation differs from the Company's
5 allocation only with regard to the magnitude of the increase to each schedule in order
6 to reflect Staff's lower revenue requirement.

7 As for rate design, Staff recommends increasing the residential monthly
8 customer charge from \$6.00 to \$8.64 to include more fixed cost recovery. Staff also
9 recommends altering the Company's rate design for Residential Schedules 16, 17,
10 and 18 ("Residential Schedules") by:

- 11 • Increasing the first block from 0-600 kilowatt-hours ("kWh") to 0-800 kWh.
- 12 • Adjusting the second block to include usage between 800-1,500 kWh.
- 13 • Adding a third block for usage over 1,500 kWh.
- 14 • Adding a third block volumetric rate with an equal cents per kWh differential
15 based on the first two tier rates.
- 16 • Adjusting the volumetric rates for Residential Schedules by applying a weighted
17 uniform percentage increase based on kilowatt-hour units for volumetric rates.

18 For Schedules 24 (Small General Service) and 36 (Large General Service <
19 1000 kW), Staff recommends the Commission direct the Company to reexamine the
20 volumetric blocks in the next GRC to ensure they are at appropriate levels and giving
21 an accurate price signal to customers.

22

1 **Q. Please summarize your recommendations for Rule 6 and Schedule 300.**

2 A. PacifiCorp is proposing language changes to general Rule 6, section I, *Permanent*
3 *Disconnection and Removal of Company Facilities*, to reflect changes it is also
4 proposing to Schedule 300, *Charges as Defined By The Rules And Regulations*. The
5 revisions to Schedule 300 include the establishment of one charge (“Actual Cost,
6 Less Salvage and Depreciation”) for the permanent disconnection and removal of
7 facilities for all types of customers. Existing charges distinguish between various
8 types of customers. The proposed revisions to Schedule 300 also include revised
9 charges for reconnection, including a separate charge for reconnection after
10 unauthorized tampering by a customer.

11 The Company’s proposed changes to Rule 6 and Schedule 300 represent
12 fairly the costs imposed on the system by customers and align these charges with
13 current actual costs. However, the magnitude of the increases proposed by the
14 Company is significant (at least 100 percent). Therefore, Staff recommends a
15 gradual increase in the current reconnection service charges to actual cost over this
16 and the next couple of GRCs. Staff also proposes some clarifying language to Rule
17 6 and Schedule 300.

18 Staff agrees with the Company’s methodology for calculating individual
19 charges under Schedule 300, but disagrees with the amount of additional revenue
20 that can be expected. The additional revenue calculation is contained in Adjustment
21 3.8, Schedule 300 Fee Charge.

22

1 **Q. Do you sponsor any exhibits in support of Staff's recommendations?**

2 A. Yes, I sponsor the following exhibits in support of my testimony:

- 3 • Exhibit No. ___ (CTM-2), Adjustment 3.8, Schedule 300 Fee Charges
- 4 • Exhibit No. ___ (CTM-3), Adjustment 4.12, Uncollectible Expense
- 5 • Exhibit No. ___ (CTM-4), Electric Cost of Service
- 6 • Exhibit No. ___ (CTM-5), Electric Revenue Allocation and Rate Design
- 7 • Exhibit No. ___ (CTM-6), Electric Bill Frequency and Histogram Analysis
- 8 • Exhibit No. ___ (CTM-7), Language Revisions to Rule 6
- 9 • Exhibit No. ___ (CTM-8), Language Revisions to Schedule 300

10

11 **III. ELECTRIC ADJUSTMENTS**

12

13 **Q. Please indicate which Company ratemaking adjustments within your area of**
14 **responsibility are contested by Staff.**

15 A. The following adjustments are contested by Staff: 1) Adjustment 3.8 – Schedule 300
16 Fee Charge; 2) Adjustment 4.12 – Uncollectible Expenses; and 3) Net-to-Gross
17 Conversion Factor.

18

19 **A. Adjustment 3.8 – Schedule 300 Fee Charge**

20

21 **Q. Please describe contested Adjustment 3.8, Schedule 300 Fee Charge.**

22 A. The Company has proposed several changes to Rule 6 and Schedule 300 regarding
23 service charges and the removal of plant serving departing customers. Staff

1 Adjustment 3.8 reflects new revenue from the lower service charges that Staff
2 proposes and I discuss in the final section of my testimony.

3

4 **Q. Are there any other differences between Staff and Company Adjustment 3.8?**

5 A. Yes. There are two other areas of disagreement between Staff and PacifiCorp also
6 regarding the amount of additional revenue to be included in Adjustment 3.8 due to
7 the revisions to Schedule 300.

8 First, Staff's adjustment, shown on Exhibit No. ___ (CTM-2), pages 1 through
9 2, was calculated by taking the number of times Schedule 300 service charges have
10 been applied over the last 5 years (12 months-ended June 2012, June 2011, June
11 2010, June 2009, and June 2008), dropping the highest and lowest years for each
12 service charge, and averaging the remaining periods, to come up with a
13 representative number of times that these service charges have been applied in the
14 past. In contrast, the Company took the actual number of times the service charges
15 were applied in the test year and multiplied them by the new service charge amounts.
16 This approach is deficient since service charge revenues will vary from year to year.
17 Staff's approach assures that the results of operations reflect the normal revenue
18 collected from these service charges over time.

19

20 **Q. What is the second area of disagreement between Staff and the Company in**
21 **calculating the impact of Adjustment 3.8?**

22 A. I corrected two errors in the Company's calculation. First, the Company adjustment
23 includes incorrectly a "Field Visit Charge" of \$25 even though the Company's

1 current and proposed tariffs show a \$15 charge. The second Company error was to
2 include an “Office Hour Reconnection” charge of \$20, when the Company’s current
3 tariff shows a \$25 charge.

4 My adjustment to correct both of these errors decreases revenue by \$22,855.
5 Staff’s overall Adjustment 3.8 increases other revenue by \$63,404, compared to the
6 Company’s overall adjustment to other revenue of \$84,850.

7
8 **B. Adjustment 4.12 – Uncollectible Expense**

9
10 **Q. Please describe contested Adjustment 4.12, Uncollectible Expense.**

11 A. PacifiCorp calculated its adjustment by applying the per books uncollectible rate (per
12 books uncollectible expense divided by per book Washington general business
13 revenue) to the normalized level of Washington general business revenue.²

14 Staff made two revisions to the Company’s adjustment. First, I include a
15 restating adjustment to normalize uncollectible expenses. Staff did this by taking the
16 bad debts for the last five years (12 months-ended June 2012, June 2011, June 2010,
17 June 2009, and June 2008),³ removing the years with the highest and lowest
18 percentage write-offs to revenue, and then calculating the average of the remaining
19 three periods. Second, I include a pro forma adjustment to uncollectible expense to
20 reflect normalized revenues.

21

² McDougal, Exhibit No. ___ (SRM-1T) at 15:5-9.

³ PacifiCorp Response to Staff Data Request No. 210.

1 **Q. Please explain why Staff's approach should be adopted by the Commission.**

2 A. First, bad debt experience in a given year can vary significantly due to credit actions
3 taken during that year and the preceding year, and other factors. Staff's approach is,
4 therefore, more reasonable than the Company's proposal because Staff more
5 accurately captures a normalized amount of bad debt to build into rates.
6 Normalizing the bad debt adjustment is also consistent with the approach applied by
7 PSE since calendar year 2004.⁴

8 Second, Staff and Company differ on the correct presentation for an
9 adjustment to uncollectible expense to reflect normalized revenues. The Company
10 made the adjustment as a restating adjustment, while Staff made the adjustment as a
11 pro forma adjustment. Staff's presentation is superior because it recognizes that an
12 adjustment cannot be made for bad debts until you have Washington's per books
13 restated for normalized revenues; therefore, causing all adjustments from that point
14 forward to be pro forma adjustments.

15 The calculation of Staff's adjustment is shown in Exhibit No. ____ (CTM-3),
16 pages 1-3. The restating adjustment part decreases bad debt expense by \$156,349,
17 increases federal income taxes by \$54,722, and increases net operating income by
18 \$101,627. The pro forma adjustment part increases bad debt expense by \$82,677,
19 compared to the Company's adjustment of \$88,426.

20

⁴ See the following GRC dockets: UE-040641/UG-040640, UE-060266/UG-060267, UE-072300/UG-072301, UE-090704/UG-090705, and UE-111048/UG-111049.

1 **C. Net-to-Gross Conversion Factor**

2

3 **Q. Please explain the purpose of the Net-to-Gross Conversion Factor.**

4 A. The conversion factor is used to adjust the net operating income deficiency for
5 revenue sensitive items and federal income tax to determine the total revenue
6 deficiency. The revenue sensitive items are the Washington State utility tax, the
7 Commission's annual filing fee, and bad debts.

8

9 **Q. Does revising the Company's Adjustment 4.12, Uncollectible Expense, as you**
10 **explained earlier, have an effect on the conversion factor Staff used to**
11 **determine revenue requirement?**

12 A. Yes. Adjusting bad debts for the reasons I stated earlier regarding Adjustment 4.12,
13 has an effect on the conversion factor. Staff's Adjustment 4.12 decreases the bad
14 debts used in the conversion factor from 0.7255 percent to 0.6783 percent.

15 Moreover, the Company did not remove the deduction for bad debts, as
16 required by RCW 82.16.050, in computing the Washington State utility tax
17 component of the conversion factor. I corrected that error, which decreased this
18 component of the conversion factor from 3.8734 percent to 3.8471 percent.

19 Overall, Staff's conversion factor, as shown on Exhibit No. ____ (CTM-3),
20 page 4 is 61.9280 percent, compared to PacifiCorp's proposed conversion factor of
21 61.8810 percent. The treatment of bad debts is the only difference between Staff and
22 Company conversion factors.

23

1 **Q. What is a parity ratio?**

2 A. A parity ratio indicates how close a particular rate schedule is to covering its cost of
3 service. For example, if a rate schedule is producing revenues that are 100 percent of
4 its cost of service, that rate schedule has a parity ratio of 1.00. If a rate schedule
5 covers only 70 percent of its cost of service, it has a parity ratio of 0.70. If a rate
6 schedule covers 130 percent of its cost of service, its parity ratio is 1.30.

7
8 **Q. What are the parity ratio results under current rates in this case?**

9 A. Table 1 below compares parity ratios under current rates between Company and
10 Staff cost of service studies.⁵ The results are based on the respective WCA interstate
11 cost allocation methods each party uses to develop its recommendation for the rate
12 year.

13 Table 1: Summary of Parity Ratios

14

Customer Class	Company WCA Current	Staff WCA Current
Total System	1.000	1.000
Residential (Schedule 16, 17, and 18)	0.970	0.966
Small General Service (Schedule 24)	1.094	1.094
Large General Service < 1,000 (Schedule 36)	1.023	1.023
Large General Service > 1,000 (Schedule 48T)	0.980	0.985
Dedicated Facilities (Schedule 48T)	0.927	0.936
Agricultural Pumping Service (Schedule 40)	1.104	1.111
Street Lighting (Schedules 15, 51-54, and 57)	1.172	1.186

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⁵ Steward, Exhibit No. ____ (JRS-1T) at 3 versus Mickelson, Exhibit No. ____ (CTM-4) at 1.

1 **Q. What does this table show?**

2 A. The table shows that using the Company's proposed WCA allocations slightly shifts
3 cost between different schedules within the cost of service study, as compared to
4 using Staff's WCA allocations.

5
6 **Q. Does that table provide a fair representation of each customer class
7 contribution to the overall cost of service?**

8 A. Yes. While Staff's different revenue requirement and allocations change the
9 resulting parity ratios somewhat, the relative proportion of each schedule's
10 contribution to the total remains approximately the same. However, the Company
11 does not allocate the revenue increase among the schedules per its cost of service
12 study. Therefore, the inequities between the rate schedules remain. I address that
13 issue in the Revenue Allocation section of my testimony.

14
15 **Q. You stated earlier that the Company's electric cost of service study presents
16 fairly the costs imposed on the system by each customer class, but there are
17 three improvements that Staff would recommend. Please explain the first
18 revision.**

19 A. The Company's current cost of service study revises the established peak credit
20 methodology for generation- and transmission-costs. According to Company
21 witness Paice, the prior method was "a peak credit method based on capacity cost
22 data from the Firm Capacity Sales Agreement between Bonneville Power
23 Administration ("BPA") and the Company." However, "since the BPA Firm

1 Capacity Sales Agreement expired in 2011, the Company proposes a revised peak
2 credit method calculation that uses the West Control Area system diversified load
3 factor (“SDLF”) to determine the portion of generation and transmission costs that
4 are demand-related.”⁶ The change to SDLF very slightly increases (3 percent) the
5 overall generation- and transmission-costs that are classified as demand.⁷

6 The Company’s proposed SDLF method, also known as “Load Factor”, is a
7 less complex way to determine the allocation of costs. However, consistent with
8 Staff witness White’s testimony regarding interstate cost allocation, Staff
9 recommends using a demand value derived by averaging the highest 100 winter
10 demand hours and highest 100 summer demand hours (“200 CP”) for cost of service
11 study purposes. The 200 CP method uses a larger data set, consistent with
12 Commission precedent that it is “preferable to use data from a longer period of time,
13 to remove variations due to unusual weather and to achieve greater stability.”⁸ The
14 Commission has also stated that the:

15 [P]roper period over which to allocate the demand-related costs of peaking
16 resources is the hours when they are expected to be used. The 200 hour
17 proposal by [PSE] is reasonably representative of the system peak and the
18 actual resources put into place to serve that peak.⁹
19

20 The 200 CP method Staff recommends is also supported by this precedent.
21

⁶ Paice, Exhibit No. ____ (CCP-1T) at 5.

⁷ Paice, Exhibit No. ____ (CCP-1T) at 5:9-14.

⁸ *WUTC v. Washington Natural Gas Company*, Dockets UG-940034 and UG-940814, Supplemental Order 05 at 9 (April 11, 1995).

⁹ *WUTC v. Puget Sound Power & Light Company*, Dockets UE-920433, UE-920499, and UE-921262, Supplemental Order 09 at 12 (August 17, 1993).

1 **Q. What is the second improvement to the Company's cost of service study that**
2 **Staff recommends?**

3 A. Staff believes problems are developing from the Company's allocation of non-
4 dispatchable generation plants, related expenses, and non-dispatchable generation
5 power contracts based on a peak-credit factor from the cost of service study.
6 Allocation factors based on a resource's contribution to peak capacity have become
7 problematic due to the Company setting "aside additional balancing reserves every
8 hour to ensure that it has adequate capacity."¹⁰

9 In addition, problems involving the alignment of costs and benefits arise if, at
10 a later date, the Company receives grants from the U.S. Department of Treasury and
11 the Commission chooses to pass back a grant through a separate tracker. This is due
12 to the way costs are collected: in part from demand charges and in part from energy
13 charges, while the benefits in a tracker are given back strictly through energy
14 charges. Thus, larger energy users receive a larger portion of tracker benefits
15 compared to the actual costs they pay. Allocating solar and wind resources and
16 related expenses on an energy-only basis cures this problem by removing the costs
17 being collected through a demand allocation; thus, ensuring that costs are collected
18 and benefits are received in the same manner, through energy charges.¹¹

19

¹⁰ Duvall, Exhibit No. ___ (GND-1CT) at 37:11-13.

¹¹ This issue has been raised with other companies, namely, PSE and its Schedule 95a in Docket UE-122001 regarding Treasury grants for Lower Snake River. The issue has not been resolved, but is presented in PSE's current power cost only rate case, Docket UE-130617.

1 **Q. How are non-dispatchable generation resources currently being allocated?**

2 A. Non-dispatchable generation (“NDG”) resources are currently being allocated to
3 Washington using the allocation factors Situs (“S”), System Generation (“SG”), and
4 Control Area Generation West (“CAGW”).¹²

5
6 **Q. Why is it appropriate to consider an alternative allocation factor for the
7 apportionment of non-dispatchable generation resources?**

8 A. Staff believes the changing energy industry landscape requires a reexamination of
9 the apportionment of the four subaccounts related to generation: Steam, Nuclear,
10 Hydraulic, and Other. The Company’s system now includes enough renewable
11 generation to consider a separate and more specific allocation factor for the
12 apportionment of the non-dispatchable generation resources found in the “Other”
13 subaccount.

14
15 **Q. What is your proposal for addressing the allocation of NDG resources?**

16 A. Staff recommends the Commission require the Company to provide the information
17 necessary for Staff to review a new NDG allocation factor for the apportionment of
18 non-dispatchable generation resources, related expenses, and non-dispatchable
19 generation power contracts. This information would be included by the Company in
20 its next full GRC filing.

21

¹² The Situs allocation factor directly assigns amounts that can be identified with a specific state. McDougal, Exhibit No. ___ (SRM-5) at 7.

1 **Q. Where would a new NGD allocation factor be applied?**

2 A. Staff recommends the continued use of the current allocation factors for the S and
3 SG accounts. However, the NDG allocation factor would be substituted anywhere
4 CAGW is being applied to non-dispatchable generation resources. The NDG
5 allocation factor will apportion subaccounts for plant, expenses, and contracts related
6 to non-dispatchable generation, such as wind, solar, etc. The Company will identify
7 subaccounts related to non-dispatchable generation in the next GRC. The
8 subaccounts will be determined from Federal Energy Regulatory Commission
9 (“FERC”): Other Production Plant Accounts 340-346; and Other Power Generation
10 Accounts 550-554.

11
12 **Q. Please describe Staff’s recommendation regarding the NGD allocation factor**
13 **itself.**

14 A. Staff reserves our final recommendation regarding the exact NGD allocation factor
15 until we have reviewed the information we ask the Commission to order the
16 Company to file in its next general rate case. Staff also encourages the Company to
17 consider other alternative allocation factors consistent with the engineering realities
18 of non-dispatchable generation or provide an argument for why the continued use of
19 CAGW results in fair, just, and reasonable rates for Washington ratepayers.

20 Nevertheless, the NDG allocation factor that Staff’s initially considers
21 reasonable is similar to the CAGW allocation factor it would replace in that the base
22 percentages for NDG will be a demand component based on 200 CP and an energy

1 component determined by Control Area Energy West (“CAEW”).¹³ The difference
2 between NDG and CAGW would be in the weighting of the base percentages.
3 Instead of the Company’s load factor weighting, the weighting would be based on
4 the ability of non-dispatchable generation to contribute to peak demand. This ability
5 is termed the “capacity credit” within PacifiCorp’s 2013 Integrated Resource Plan
6 (“IRP”).¹⁴
7

8 **Q. Please explain the capacity credit in more detail.**

9 A. The capacity credit percentage will equal the demand component, where one minus
10 the capacity credit will equal the energy component.

11 Staff recommends using a capacity credit that is largely consistent with the
12 methodology described in the 2013 IRP. The following excerpt from the IRP
13 explains the calculation of the capacity credit:

14 Rather than using a statistical approach to derive peak load carrying capabilities
15 for each resource, the Company now determines aggregate peak capacity credits
16 for each resource type by analyzing historical generation data for the period 2007
17 through 2010. For wind resources, PacifiCorp calculated the capacity credit for
18 each year by first summing the hourly generation for all the wind resources for
19 each hour of the year and dividing the hourly generation by the aggregate
20 nameplate capacity to get hourly capacity factors. The average capacity factor
21 for the 100 highest summer peak hours in the year is then calculated. Finally the
22 wind credit is multiplied to 0.90, or 90 percent, to reflect the Company’s
23 assumption that there is a 90 percent probability that the wind resources will
24 generate at the annual historical level in future years. The resulting annual
25 capacity credit, averaged for the four years of historical data, is 4.2 percent.
26 Since the Company has no historical data for solar resources, a similar set of
27 calculation was performed based on simulated hourly solar profiles that use
28 historic meteorological solar radiation data for five locations across the
29 Company’s service territory. The capacity credit for solar resources is 13.6

¹³ WCA 200 CP is the base percent for the capacity component and CAEW is the base percentage for the energy component. McDougal, Exhibit No. ___ (SRM-5) at 11.

¹⁴ PacifiCorp’s “Integrated Resource Plan,” Volume 1, April 30, 2013 at 93.

1 percent assuming that most installations are optimized for energy output rather
2 than peak capacity.¹⁵
3

4 Staff's proposal for the calculation of the capacity credit differs slightly from
5 the calculation provided in the 2013 IRP. Staff recommends using 200 CP instead of
6 the 100 summer hours used in the IRP.¹⁶ If the Company changes its methodology
7 for calculating the capacity credit in future years, Staff recommends reviewing the
8 NDG allocation factor at that time.

9 For other non-dispatchable resources, Staff similarly recommends the use of
10 a capacity credit consistent with the methodology outlined in the IRP,¹⁷ though again
11 using 200 CP based on WCA hours.
12

13 **Q. What is the basis for Staff's recommendation for revising this allocation factor**
14 **for NDG?**

15 A. The NDG allocation factor should be changed due to the non-dispatchable nature of
16 wind and solar. While it is true that every source of generation has a different ability
17 to meet peak, wind and solar have a reduced ability to meet peak demand.
18 Generation is only available when the wind blows at particular velocity range or
19 when the sun shines. The ability to meet peak demand is critical when considering
20 the peak credit ratio that is used to weight the CAGW allocation factor. The peak
21 credit method captures a state's usage of the system at a time of peak simultaneous

¹⁵ PacifiCorp's "Integrated Resource Plan," Volume 1, April 30, 2013 at 93-94.

¹⁶ The top 200 hours should be determined using the top hours for the WCA rather than total system.

¹⁷ PacifiCorp's "Integrated Resource Plan," Volume 1, April 30, 2013 at 94.

1 demand.¹⁸ If non-dispatchable generation resources have a reduced capacity to meet
2 peak, the capacity component of the weighting should reflect this reduction.

3 The exploration of this allocation factor change is particularly ripe, given the
4 general review of allocation factors and the Company's signal that wind has a
5 material impact on its system. Within the current rate case, the Company updated
6 the costs of wind integration into the revenue requirement model.¹⁹

7
8 **Q. What is the third and final improvement to the Company's cost of service study
9 that Staff recommends?**

10 A. The Company allocated corporate account managers rather than assigning them
11 directly.²⁰ These assigned corporate account managers for customers with loads over
12 750kW should, instead, be directly assigned to Schedule 48T, where all of these
13 customers receive service.

14
15 **Q. What is the basis for Staff's recommendation regarding direct assignment of
16 corporate account managers?**

17 A. A corporate account manager is typically assigned to very large customers that have
18 special service needs. If something goes wrong with service, the customer will call
19 their assigned corporate account manager to get the issue resolved, while the average
20 ratepayer would call the general customer service phone line.

¹⁸ PacifiCorp's "Integrated Resource Plan," Volume 1, April 30, at 39. "Since the Company has no historical data for solar resources, a similar set of calculations was performed based on simulated hourly solar profiles that use historic meteorological solar radiation data for five locations across the Company's service territory. The capacity credit for solar resources is 13.6 percent assuming that most installations are optimized for energy output rather than peak capacity."

¹⁹ Duvall, Exhibit No. ____ (GND-1CT) at 25:10-15.

²⁰ PacifiCorp Response to Staff Data Request No. 12.

1 Therefore, the additional costs attributable to this special treatment should be
2 directly assigned to Schedule 48T where these customers receive service, instead of
3 spreading these costs to all customer classes, as the Company has done. It is not
4 appropriate to spread these costs to those other customer classes for which corporate
5 account managers provide no services. The Company should create a subaccount to
6 track corporate account manager costs and directly assign those costs to Schedule
7 48T.

8
9 **Q. Do you have a recommendation for reflecting these three improvements in the**
10 **Company's cost of service presentation?**

11 A. Yes. I recommend that the Commission order the Company in its next general rate
12 case to present a cost of service study that includes these improvements. This
13 process is intended to be consistent with Staff witness White's recommendation for a
14 report on inter-state cost allocations.

15
16 **V. REVENUE ALLOCATION**

17
18 **Q. Please explain the general concept of revenue allocation.**

19 A. Revenue allocation, also known as "rate spread", is the process of determining the
20 portion of total revenues to be collected from each rate schedule.

21
22 **Q. How should the Commission use the parity ratios you presented earlier from**
23 **the cost of service study to allocate revenues in this case?**

1 A. The Commission should consider parity ratios as an important part of the process.
2 Overall, the Commission should move rate schedules closer to parity if they are
3 significantly out of parity.

4 However, parity is not the only factor. The Commission has stated that it will
5 also consider “fairness, perceptions of equity, economic conditions in the service
6 territory, gradualism, and rate stability.”²¹ I discuss each of these considerations
7 later in my testimony.

8
9 **Q. Is it practical to allocate revenues in a manner that achieves a parity ratio of**
10 **1.00 for every rate schedule?**

11 A. No. For one thing, the assumptions and results of any cost of service study are often
12 disputed among the parties. It is a matter of informed judgment to determine how
13 much of the average rate increase is fairly apportioned to each schedule. For
14 example, if a rate schedule is at 95 percent parity or 105 percent parity, that likely
15 justifies an equal percentage increase.

16
17 **Q. Where are the imbalances shown in the results of the cost of service study?**

18 A. As the Table 1 above shows, the greatest parity imbalances are reflected in:
19 • Dedicated Facilities Schedule 48T, covering 93.6 percent of its cost of service;
20 • Small General Service Schedule 24, covering 109.4 percent of its cost of service;
21 • Agricultural Pumping Service Schedule 40, covering 111.1 percent of its cost of
22 service; and

²¹ *WUTC v. Puget Sound Energy, Inc.*, Dockets UE-111048 and UG-111049, Order 08 at ¶350 (May 7, 2012).

1 • Street Lighting Schedules 15, 51-54, and 57, covering cover 118.6 percent of
2 their cost of service.

3 The other rate schedules are within an acceptable range of covering their particular
4 cost of service.

5
6 **Q. Why are the parity ratios so out of balance for the specific schedules you listed?**

7 A. This is likely due to the equal percentage increases that were applied in the past
8 several general rate cases, most of which involved settlements adopted by the
9 Commission.

10

11 **Q. What is Staff's recommendation on revenue allocation?**

12 A. Based on Staff's recommended overall revenue increase of 4.82 percent, and in order
13 to move all Schedules closer to parity, Staff recommends the following increases:

- 14 • Schedules 16-18, Residential, get an increase of 5.54 percent.
- 15 • Schedule 24, Small General Service, gets an increase of 2.41 percent.
- 16 • Schedule 36, Large General Service <1,000 kW, gets an increase of 4.58 percent.
- 17 • Schedule 48T, Large General Service >1,000 kW, gets an increase of 5.54
18 percent.
- 19 • Schedule 48T, Dedicated Facilities, gets an increase of 6.75 percent.
- 20 • Schedule 40, Agricultural Pumping, gets an increase of 2.41 percent.
- 21 • Schedules 15, 51-54, and 57, Street Lighting, get no increase.

22

1 **Q. Please explain why Schedules 15, 24, 36, 40, 51-54 and 57 get an average or**
2 **below average increase, while Schedules 16-18 and the 48T get a higher than**
3 **average increase.**

4 A. Staff proposes a gradual move toward parity for those schedules that are not close to
5 parity. In the context of moving all schedules gradually to reduce parity ratio
6 imbalances, Staff applied an average or below average increase to those schedules
7 that are above their cost of service, and a higher than average increase for those
8 schedules that are under-contributing to their cost of service. To reach complete
9 parity at existing rates:

- 10 • Residential Schedules 16-18 would require approximately an 8.6 percent rate
11 increase;
- 12 • Small General Service Schedule 24 would require a rate decrease of
13 approximately 4.1 percent;
- 14 • Large General Service less than 1,000 kWh Schedule 36 would require a rate
15 increase of approximately 2.4 percent;
- 16 • Large General Service greater than 1,000 kWh Schedules 48 would require a rate
17 increase of approximately 6.4 percent;
- 18 • Dedicated Facilities Schedule 48T would require a rate increase of approximately
19 11.6 percent;
- 20 • Agricultural Pumping Service Schedule 40 would require a rate decrease of
21 approximately 5.4 percent; and
- 22 • Street Lighting Schedules 15, 51-54, and 57 would require a rate decrease of
23 approximately 11.7 percent.

1 In Staff's judgment, the more gradual approach we recommend is preferable.

2

3 **Q. What are the parity ratios after applying Staff's proposed revenue allocation?**

4 A. Table 2 below shows that Staff moved all schedules within approximately 5 percent
5 of parity, which is typically an acceptable range, with the exception of Street
6 Lighting Schedules 15, 51-54, and 57. These results are shown in the summary of
7 results from the cost of service study on my Exhibit No. ____ (CTM-4), page 2,
8 column O.

9

Table 2: Summary of Parity Ratios

10

Customer Class	Current	Staff Proposal
Total System	1.000	1.000
Residential (Schedule 16, 17, and 18)	0.966	0.972
Small General Service (Schedule 24)	1.094	1.068
Large General Service < 1,000 (Schedule 36)	1.024	1.021
Large General Service > 1,000 (Schedule 48T)	0.985	0.992
Dedicated Facilities (Schedule 48T)	0.936	0.957
Agricultural Pumping Service (Schedule 40)	1.111	1.082
Street Lighting (Schedules 15, 51-54, and 57)	1.186	1.132

18

19 **Q. Does Staff's proposal reflect considerations of fairness, equity, economic**
20 **conditions, gradualism, and rate stability?**

21 A. Yes. Staff's recommendation emphasizes the customer class relationship to parity
22 and customer bill impacts. The parity ratios discussed earlier in my testimony
23 indicate that some classes currently pay less than it costs to serve them, and other

1 classes pay more than it costs to serve them. Because this relationship between costs
2 and revenues varies by customer class, the Company's earned return also varies by
3 customer class. By adjusting rate spread, classes can be brought closer to paying the
4 costs incurred to serve the class, and class level rates of return can be brought closer
5 to the system average rate of return.

6 Staff's long-term goal is to move towards parity for each class, and the
7 recommended rate spread is designed to move classes toward those levels without
8 producing unacceptably large customer impacts.

9 Staff also recognizes that current economic conditions in the Company's
10 service area do not warrant a complete shift to the cost of service. In addition, parity
11 ratios change with actual usage, so setting rates for 100 percent parity every year
12 would create rate instability. Therefore, Staff is applying the concept of gradualism
13 in small and discrete increments to reduce these imbalances, rather than abrupt
14 strokes toward full parity without consideration of other important factors.

15 16 VI. RATE DESIGN

17
18 **Q. Please explain the general concept of electric rate design.**

19 A. Electric rate design takes total allocated revenue for each electric rate schedule and
20 determines the specific charges within the schedule, such as the monthly customer
21 charge, the demand charge per kilowatt, and the cents per kilowatt-hour (kWh).

1 **Q. What are Staff's rate design proposals?**

2 A. Staff proposes four changes to the rate design in PacifiCorp's current Residential
3 Schedules: (1) Increase the monthly customer charge for Residential Schedules 16,
4 17 and 18 from \$6.00 to \$8.64 to include more fixed costs; (2) Adjust volumetric
5 blocks for the Residential Schedules; (3) Create a residential third-block and
6 volumetric rate based on the cents per kWh differential between the first two
7 volumetric rates; and (4) Set a weighted uniform percentage increase based on
8 kilowatt-hour units for volumetric rates in Residential Schedules.

9 Staff also recommends revisions to the Company's proposals regarding Rule
10 6 and Schedule 300.

11

12 **A. Residential Schedules**

13

14 **1. Monthly Customer Charge**

15

16 **Q. What does Staff propose for the residential monthly customer charge given**
17 **Staff's lower recommended revenue requirement?**

18 A. Staff proposes to increase the monthly customer charge for Residential Schedules 16,
19 17 and 18 from \$6.00 to \$8.64. This compares to the Company's proposal to
20 increase the charge from \$6.00 to \$10.00.

21

1 **Q. Is Staff's proposed monthly customer charge cost based?**

2 A. Yes. I show the cost basis for this price level in my Exhibit No. ___ (CTM-4) at
3 page 3, line 31.

4

5 **Q. Please explain the difference between the Company and Staff proposed**
6 **residential monthly customer charges?**

7 A. A monthly customer charge, also known as the "basic charge," covers costs such as
8 the cost of meters, service drops, meter reading, and billing.²² This is appropriate
9 because these are customer-related costs that vary with the number of customers.
10 They are not demand-related costs that vary with peak usage, nor are they energy-
11 related costs that vary with consumption. Staff's basic charge proposal is consistent
12 with this principle.

13 However, without supporting evidence or analysis, the Company also seeks
14 to recover in the basic charge working capital, bad debts, miscellaneous general
15 expenses, and other accounts.²³ This proposal is inconsistent with the principle that
16 the basic charge should recover only costs associated with each customer. Therefore,
17 Staff removed working capital, bad debts, and other miscellaneous general expenses
18 from the basic charge.

19

20 **Q. Why is Staff proposing to increase the residential basic charge at all?**

21 A. Staff proposes to increase the basic charge so that customers will pay an amount that
22 provides more recovery of fixed costs incurred by the Company to serve customers

²² In essence, customer-related costs reflect the minimum amount of equipment and service needed for customers to access the electric grid.

²³ Paice, Exhibit No. ___ (CCP-3).

1 regardless of the level of energy usage. When customer-related fixed costs are not
2 entirely collected through the basic charge, the Company collects the remaining
3 portion of the customer-related fixed costs through per kWh charges, which
4 ultimately results in intra-schedule cross-subsidization. In other words, if customer-
5 related fixed costs are collected through volumetric rates, those customers with
6 above-average consumption are paying more than their fair share of customer-related
7 fixed costs, thus subsidizing customers with below-average usage who are paying
8 less than their fair share.

9 In addition, the collection of customer-related costs through volumetric
10 charges can lead to over- or under-collection of the fixed costs, because electricity
11 sales fluctuate with weather, the economy, energy efficiencies, conservation, and
12 self-generation.²⁴

13 Removing customer-related fixed costs from volumetric sales is, therefore,
14 beneficial on two fronts. First, it removes some of the disincentive utilities currently
15 experience regarding the promotion of energy efficiency and conservation. Second,
16 it improves the certainty of recovery of customer-related fixed costs.

17
18 **Q. Will Staff's proposal to increase the basic charge harm low-income customers?**

19 A. No. In fact, the increase in the basic charge will actually help the average low-
20 income customer. Studies have shown that the housing stock for most low-income
21 customers is relatively inefficient, resulting in above-average usage.²⁵ Specifically,

²⁴ Marry Blake, *Creating the Right Retail Rate Environment for Energy Conservation and Energy Efficiency*,
Management Quarterly, Dec. 2009, at 6.

²⁵ *Id.*

1 low-income customers have an average monthly usage of 1,331 kWh²⁶ compared to
2 other customers, who have an average monthly usage of 1,278 kWh.²⁷

3 As I just explained, customers with above-average usage subsidize customers
4 with below-average usage, if customer-related costs are included in volumetric
5 charges. Therefore, moving more of the customer-related fixed costs to the basic
6 charge will help low-income customers by reducing the amount they subsidize other
7 customers with lower usage, including customers with non-electric heating such as
8 natural gas, wood, and propane.

9
10 **Q. Is Staff's proposed increase to the residential basic charge in addition to**
11 **proposed changes in volumetric rates that you discuss in a later section of your**
12 **testimony?**

13 A. Yes. However, the volumetric charge increase is less than it would be if there was
14 no increase in the basic charge. The revenue requirement for the Company drives
15 the total increase in rates. Without an increase to the basic charge, a greater amount
16 of the revenue requirement would need to be collected through larger increases to the
17 volumetric charges.

18 For customers with usage levels consistent with low-income customers,
19 Staff's revised rates are between 0.9 percent and 1.0 percent lower with the basic
20 charge increase, than they would have been if the same amount of revenue were
21 collected strictly through increases to volumetric charges, as seen in the following
22 Table 3:

²⁶ PacifiCorp Response to Energy Project Data Request No. 4.

²⁷ PacifiCorp Response to Energy Project Data Request No. 5.

Table 3: Crossover Chart

Usage in kWh	Total Bill per Rate Design Option		
	Basic Rate = \$6.00	Basic Rate = \$8.64	% Difference
1,000	\$81.29	\$80.57	-0.9%
1,100	\$91.24	\$90.39	-0.9%
1,200	\$101.18	\$100.21	-1.0%
1,300	\$111.12	\$110.03	-1.0%
1,400	\$121.06	\$119.85	-1.0%
1,500	\$131.00	\$129.67	-1.0%

Q. Will increasing the basic charge send the wrong price signal to residential customers?

A. No. The increase to the basic charge sends the correct price signal because it recovers the fixed costs the Company incurs directly to serve that customer, such as the cost of the service drop and the meter.

Q. Is Staff's recommended level of customer charge appropriate?

A. Yes. In a 2007 general rate case order for PSE, the Commission identified the appropriate level of a customer charge as follows:

[A]n increase in the customer charge...will result in the Company recovering about one-fourth of its fixed costs allocated to residential customers via a fixed charge on each customer's bill. This is about eight to ten percent of an average customer's total bill, considering both fixed and variable costs. This seems to us the right balance point for the recovery of fixed costs via the customer charge.²⁸

²⁸ *WUTC v. Puget Sound Energy, Inc.*, Dockets UE-060266 and UG-060267, Order 08 at ¶139 (January 5, 2007).

1 Staff's proposed \$8.64 customer charge for residential customers meets this "balance
2 point" because it represents 21.0 percent of the fixed costs allocated to residential
3 customers²⁹ and equals 8.0 percent of an average customer's total bill. These
4 percentages are within the limits the Commission approved in the PSE order I
5 quoted.

6
7 **2. Volumetric Blocks**

8
9 **Q. Please summarize Staff's proposed change to the volumetric block design for**
10 **the Residential Schedules.**

11 A. Staff recommends:

- 12 • Changing the first block from 0 – 600 kWh to 0 – 800 kWh;
13 • Adjusting the second block from over 600 kWh to 800 – 1,500 kWh; and
14 • Creating a third block for over 1,500 kWh.

15
16 **Q. Please explain why Staff is proposing to increase the first block to 800 kWh.**

17 A. This 800 kWh first block is appropriate because consumption in this range is likely
18 inelastic.³⁰ This supports a more appropriate price signal for conservation because it
19 moves the elastic usage to the higher rate blocks, which are designed to operate with
20 more elastic usage.

21 Staff recommends that the first block should represent the amount of energy
22 an average customer needs for essential uses, which include cooking, domestic hot

²⁹ Percentage is based on total customer and distribution demand costs.

³⁰ John M. Levy, *Essential Microeconomics for Public Policy Analysis* 38 (1995).

1 water, lighting, and home appliances (e.g., refrigeration). According to the U.S.
2 Department of Housing and Urban Development (“HUD”), the average end-use
3 consumption for these categories of usage is between 765 and 850 kWh based on a 2
4 bedroom dwelling unit and a 2.5 bedroom dwelling unit, respectively.³¹ Staff’s
5 proposed first rate block of 800 kWh reflects this average.
6

7 **Q. Please explain why Staff is proposing to restrict the second block to 1,500 kWh**
8 **and create an over 1,500kWh.**

9 A. First, 1,500 kWh represents usage for essential needs plus space heating, also
10 according to HUD.³² Therefore, any usage over 1,500 kWh should be considered
11 discretionary, or excessive, energy use and that should be the demarcation between
12 the second block and the tail block.

13 Second, the Company’s average residential usage at approximately 1,300
14 kWh is 30 percent greater than either Avista or PSE.³³ Therefore, creating a three-
15 block rate design, compared to the current two-block rate design, should help with
16 conservation measures by allowing a slightly more aggressive tail block rate.
17

18 **Q. Will increasing the volumetric blocks reduce price signals to conserve?**

19 A. Yes and no. Staff understands moving to a higher first block (i.e., more kWhs in the
20 first block) places a larger proportion of a customer’s usage in the first block. This
21 slightly reduces the effect of conservation-oriented price signals for customers
22 because a larger amount of energy consumption can occur at a slightly lower cost.

³¹ Mickelson, Exhibit No. ___ (CTM-5) at 16:6.

³² Mickelson, Exhibit No. ___ (CTM-5) at 16:11.

³³ Both Avista and PSE have an average residential customer usage of approximately 1,000 kWh.

1 However, the Commission's focus should be on the Company's residential
2 customers that use four or five, or up to 31 times, the average monthly system
3 usage.³⁴ For conservation reasons, the Company and ratepayers would see a bigger
4 reduction in system loads because customers using over four times the average
5 monthly system usage likely have more opportunity to reduce their usage.

6 For example, a 20 percent reduction in usage from 600 kWh would be 120
7 kWh less per month, which is the equivalent of not cooking for an entire month,
8 leaving a net of 480 kWh. A 20 percent reduction from 4,000 kWh would be 800
9 kWh less each month, which is greater than what HUD indicates is needed to heat
10 the average 2 to 2.5 bedroom dwelling unit for a month, leaving a net of 3,200 kWh,
11 which is still over two and half times the average monthly usage of 1,300 kWh for
12 Residential Schedules.

13

14 **Q. Please explain what Staff means by "allowing for a slightly more aggressive tail**
15 **block rate" to help with conservation measures, as mentioned earlier?**

16 A. First, creating an inverted block rate structure with a third block, compared to the
17 Company's current two-block structure, will automatically increase the upper-tier
18 rate above that of the second block.

19 Second, higher levels of consumption tend to be the most susceptible to
20 variations in unit pricing; customers tend to be able to curtail consumption in these
21 higher consumption blocks in response to price increases, and that should help with
22 conservation measures.

23

³⁴ PacifiCorp Response to Staff Data Request No. 263.

1 **Q. Does PacifiCorp propose any changes to the existing rate blocks in the**
2 **Residential Schedules?**

3 A. No. Staff's recommendation would set up a rate design that differs from the
4 Company's other jurisdictions.
5

6 **Q. Is PacifiCorp's billing system able to accommodate differing rate designs for**
7 **different jurisdictions?**

8 A. Yes. According to the Company's response to Staff's Data Request No. 252,
9 [T]he system can accommodate multiple inputs once the billing components,
10 the associated billing logic, and general ledger accounting has been entered
11 into the system. The Company's billing system has more than 5,000 unique
12 retail billing components and associated system logic supporting the six
13 states served by PacifiCorp. There are no state, jurisdictional or geographic
14 system constraints.
15

16 **3. Volumetric Rates**
17

18 **Q. Please explain Staff's recommendation for volumetric rates for the Residential**
19 **Schedules.**

20 A. Staff recommends creating a third block volumetric rate using the exact same cents
21 per kWh differential between the first- and second-block rates before the rate
22 increase, and then applying a weighted uniform percentage increase for all
23 volumetric rates in all Residential Schedules based on each block's kilowatt-hour
24 units. This will maintain consistency between the rates and reduce revenue
25 volatility. For example, if the first volumetric block generates 54 percent of the

1 kilowatt-hour units, then 54 percent of the rate increase should be recovered in the
2 first block.

3
4 **Q. How does Staff view the Company's proposal?**

5 A. The Company proposes "a higher percentage increase to the second block for usage
6 over 600 kilowatt-hours per month."³⁵ However, Staff finds this proposal creates
7 inconsistency between the rates, results in more revenue volatility due to variations
8 in seasonal weather, the economy, and energy efficiencies, and creates a disincentive
9 for the utility regarding the promotion of energy efficiency.

10
11 **4. Overall Impacts of Staff's Residential Rate Design**

12
13 **Q. Can you quantify the overall effect of Staff's volumetric block and volumetric
14 rate proposals for the Residential Schedules?**

15 A. Yes. Table 4 below illustrates the effects of what a customer bill would be on
16 Residential Schedules under the current rate structure, the Company's proposed rate
17 structure, and Staff's revised rate structure at a variety of usages using the
18 Company's revenue requirement.

19
20
21
22

³⁵Steward, Exhibit No. ____ (JRS-1T) at 5:14-15.

Table 4: Showing the Bill Effect of Company and Staff Rate Design Proposals'

Usage in kWh	Residential Bill					
	Current	Company Proposal	% Difference	Current	Staff Proposal	% Difference
50	\$8.97	\$13.14	46.4%	\$8.97	\$12.16	35.5%
300	\$23.85	\$28.83	20.9%	\$23.85	\$29.77	24.8%
1,300	\$107.61	\$123.45	14.7%	\$107.61	\$118.57	10.2%
3,000	\$267.68	\$307.49	14.9%	\$267.68	\$318.61	19.0%
4,000	\$361.84	\$415.75	14.9%	\$361.84	\$437.68	21.0%

Q. What are the overarching benefits of Staff's recommended rate design changes for the Residential Schedules?

A. There are three broad benefits to Staff's recommended rate design changes: (1) revenue stability; (2) realigning the blocks to match the inelastic consumption of service for essential needs, as I have explained; and (3) providing proper price signals for conservation and discouraging wasteful use of service.

Q. How does Staff's proposed rate design for the Residential Schedules promote revenue stability?

A. From year to year, rates should be stable and predictable to help the Company manage cash flow effectively to meet its financial needs. These needs include the costs of operations, maintenance, and administration, as well as current debt service obligations. Inverted block rate structures tend to result in more revenue volatility

1 than other rate structures (*i.e.*, declining and uniform block rates) because an inverted
2 block rate anticipates recovering a proportionately greater percentage of the
3 customer class's revenue requirement at higher levels of consumption. These higher
4 levels of consumption tend to be susceptible to variations in seasonal weather, the
5 economy, energy efficiencies, and conservation and, when coupled with higher unit
6 pricing, customers tend to curtail consumption in these higher consumption blocks.

7 When there is a larger share of total revenue from elastic usage, total revenue
8 is more susceptible to the short-run business cycles, which causes fluctuations in the
9 revenue stream. Implementing Staff's rate design structure to appropriately reflect
10 customer-related costs in the basic charge, adjusting the blocks to properly place
11 inelastic demand and discretionary energy usage in the tail block, and applying a
12 weighted uniform percent increase to include low elasticity usage, leads to greater
13 revenue stability and predictability, which is one of the attributes of a sound rate
14 structure.³⁶

15 Staff's analysis for the Residential Schedules, shown in my Exhibit No. ____
16 (CTM-5, page 15 and summarized in Table 5 below, demonstrates that the current
17 rate design and the Company's proposed rate design produce revenue *instability*, due
18 to the smaller percentage of revenue in the first block and greater percentage of
19 revenue within the third block, as compared to Staff's proposal.³⁷

³⁶ James C. Bonbright, *Principles of Public Utility Rates* 383 (1988).

³⁷ The Company does not have a third block; however, Staff is able to derive the revenue by applying the Company's current and proposed rates against Staff's actual units in the third block.

Table 5: Summary of Percentage of Revenues by Rate Design Structure

Rate Design Structure	Percentage of Revenues		
	Current	Company Proposal	Staff Proposal
Base Charge	5.6%	10.9%	7.6%
First Block	30.3%	28.6%	39.9%
Sub-Total	35.9%	39.6%	47.5%
Second Block	40.5%	42.5%	27.6%
Third Block	23.6%	17.9%	24.9%
Sub-Total	64.1%	60.4%	52.5%
Grand Total	100.0%	100.0%	100.0%

Q. Please explain how Staff’s proposed rate design for the Residential Schedules provides proper price signals.

A. When appropriately applied, a potential rate adjustment of substantial magnitude is beneficial to promote proper price signals. This delivers a clear message about the benefit of taking an action, and the cost of not taking an action. “Price” is one of the classic “Four P’s” of marketing – Product, Price, Place, and Promotion.³⁸ Therefore, price signals offer the avenue for utilities to communicate to their customers the true cost of power and also to provide them with an appropriate incentive to change their energy consumption in a manner that can both lower their power bill and lower the utility’s costs of providing service. The primary reason Staff is promoting these

³⁸ E. Jerome McCarthy, *Basic Marketing: A Managerial Approach* (1960).

1 price signals is to discourage wasteful use while promoting justified use, which is
2 another attribute of a sound rate structure.³⁹

3 Recognizing that the upper-block usage is characterized by high
4 seasonality,⁴⁰ with usage highly concentrated during the peak hours,⁴¹ and low load-
5 factor end-uses, it is important to make high-use prices reflect the higher expenses
6 related to serving high-use customers. Therefore, a steeply inverted third block rate
7 properly collects the appropriate costs from these expensive end uses. The high tail-
8 block rates also serve to encourage energy efficiency and energy management
9 practices by consumers, while allowing the Company to focus its conservation
10 programs on discretionary, or excessive, energy use.

11
12 **B. Non-Residential Schedules**

13
14 **Q. Does Staff have any recommendations regarding rate design for non-residential**
15 **schedules?**

16 A. Yes. Staff recommends the Commission direct the Company to examine its
17 volumetric blocks in Schedules 24 and 36, and demonstrate in its next GRC whether
18 or not those rate blocks are valid and convey the appropriate price signals.

19
20 **Q. What is the basis for this recommendation?**

21 A. The Company's data shows the following statistics: (1) For Schedule 24, at least
22 92.8 percent of all kWh units sold with volumes of 9,000 kWh or less are below the

³⁹ See n.36, *supra*.

⁴⁰ Mickelson, Exhibit No. ____ (CTM-6) at 1-3.

⁴¹ Peak day was December 13, 2011 at 770 MW; see PacifiCorp Response to Staff Data Request No. 7.

1 second block of 9,000 kWh;⁴² and (2) For Schedule 36, at least 59.1 percent of all
2 kWh units sold with volumes of 40,000 kWh or greater are above the first block of
3 40,000 kWh.⁴³

4 Overall, when the majority of the customers' usage in a rate schedule fall
5 either above or below the first block, it is likely that the appropriate and proper price
6 signals are not being reflected.

7
8 **C. Rule 6 and Schedule 300**

9
10 **Q. What is Staff's position regarding the proposed revisions to Rule 6 and**
11 **Schedule 300?**

12 A. The Company's proposed tariff changes represent fairly the costs imposed on the
13 system by customers and align these charges with current actual costs. However, the
14 Company's proposed charges call for significant increases of at least 100 percent.
15 Therefore, Staff recommends a gradual increase in the current reconnection service
16 charges to actual cost over this and the next couple of general rate cases. As shown
17 in my Exhibit No. ____ (CTM-2) at page 3, column G, this is accomplished by adding
18 to the current reconnection service charges one-third of the difference between the
19 current charges and actual costs,⁴⁴ with one exception. That exception is the service
20 charge for reconnection after tampering by a customer with electric facilities. That

⁴² PacifiCorp Response to Staff Data Request No. 08, Supplemental Attachment A, and Mickelson, Exhibit No. ____ (CTM-6) at 4-13.

⁴³ *Id.*

⁴⁴ *WUTC v. Telephone Utilities of Washington, Inc.*, Docket U-81-90, Supplemental Order 02 at 21 (August 6, 1982). This is the last Order where the Commission ruled on service charges, which "authorize the Company to increase these charges by 50% of the amount requested." Staff's percentage is less than what the Commission has authorized in the past.

1 charge is increased from \$75 to the full actual cost of \$180 due to the seriousness of
2 that activity.⁴⁵

3
4 **Q. Does Staff have any other comments regarding the Schedule 300 service charge
5 or Rule 6?**

6 A. Yes. The disputes between the Company and Columbia Rural Electric Association
7 over Schedule 300 could be solved with a service area agreement⁴⁶ or through a sale
8 and transfer of assets (assuming a selling price at or above market price and not
9 below original cost).

10 Moreover, the Company's proposed changes to Schedule 300 and Rule 6,
11 Section I reduce the transparency of which costs are being included and charged to
12 customers. In addition, the Company eliminated a formal definition of "salvage."
13 Therefore, Staff proposes revisions to Schedule 300 and Rule 6 that will reduce
14 confusion. Specifically, Staff recommends the Commission adopts the language
15 revisions to Schedule 300 and Rule 6 as outlined in PacifiCorp's Response to Staff
16 Data Request No. 270, which clarifies how the charge for removal will be
17 determined, as well as providing a definition of "salvage value." My Exhibit No. ____
18 (CTM-7) and Exhibit No. ____ (CTM-8) includes the Company's response to that
19 data request, but with the rates that I recommend.

20
21 **Q. Does this conclude your testimony?**

22 A. Yes.

⁴⁵ WAC 480-100-123(2)(e) and WAC 480-100-128(2)(a).

⁴⁶ PacifiCorp Response to Public Counsel Data Request No. 64, and RCW 54.48.020 and RCW 54.48.030.