Pacific Power |
Rocky Mountain Power
825 NE Multnomah, Suite 1600
Portland, Oregon 97232

April 15, 2022

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

RE: *PacifiCorp*
Updated Transmission System Loss Factor, Docket No. ER22-___-000

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act ("FPA"),[1] Part 35 of the Federal Energy Regulatory Commission's ("FERC" or the "Commission") regulations,[2] and Order No. 714,[3] PacifiCorp hereby submits a proposed amendment to Schedule 10 of its Open Access Transmission Tariff ("OATT") to reflect an updated loss factor for Real Power Losses for use of PacifiCorp's Transmission System (the "Transmission System loss factor"). PacifiCorp respectfully requests that the amended Schedule 10 become effective June 1, 2022, to coincide with the effective date of PacifiCorp's 2022 Rate Year[4] and consistent with the settlement agreement in Docket No. ER11-3643 that implemented PacifiCorp's transmission formula rate, as described further below.[5]

## I. Background and Reason for Filing

### a. Requirement to update the Transmission System loss factor effective June 1.

On May 26, 2011, PacifiCorp submitted its transmission and ancillary service rate case filing in Docket No. ER11-3643, in which PacifiCorp sought to modify its transmission rates and adopt a formula transmission rate. PacifiCorp proposed a formula rate to calculate its rates for Point-to-Point Transmission Service and Network Integration Transmission Service, with such rates being updated annually pursuant to Formula Rate Implementation Protocols (the "Protocols").

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[1] 16 U.S.C. § 824d (2018)
[2] 18 C.F.R. Part 35 (2020).
[3] *Electronic Tariff Filings*, Order No. 714, 124 FERC ¶ 61,270 (2008).
[4] "Rate Year" is defined in Attachment H-2, Section I(2) as follows, "The Formula Rate shall be applicable to service on and after June 1 of a given calendar year through May 31 of the subsequent calendar year"
[5] *PacifiCorp*, 143 FERC ¶ 61,162 (2013). The settlement agreement is referred to herein as the "Settlement Agreement".

PacifiCorp included in the Docket No. ER11-3643 rate case filing the following additions to its OATT: (1) Attachment H-1, which is the Formula; and (2) Attachment H-2, which are the Protocols. As noted earlier, a Settlement Agreement was reached in Docket No. ER113-3643 and was accepted by the Commission in a Letter Order dated May 23, 2013.

The Settlement Agreement reflected an amended OATT Schedule 10 that included an updated Transmission System loss factor of 4.26%.[6] In Section 3.6.9 of the Settlement Agreement, PacifiCorp agreed to file an adjusted Transmission System loss factor under Schedule 10 following completion of every two segments of its Energy Gateway Project (or substantially similar transmission segments or combination thereof), once the segments have been in commercial operation for at least one full calendar year.[7] The Settlement Agreement stipulates that the calculation for the Transmission System loss factor must be consistent with the spreadsheet calculation identified in Appendix 16 to the Settlement (the "Loss Factor Calculation") and be based on PacifiCorp's most recent FERC Form No. 1 data for the prior calendar year. Furthermore, the Settlement Agreement includes a Loss Analysis Methodology in Appendix 17 to be used prospectively in calculating adjustments to PacifiCorp's Transmission System loss factor(s). Finally, Section 3.6.9 requires PacifiCorp to request the Commission accept the updated Transmission System loss factor effective June 1 of the calendar year in which the filing is made.[8]

b. <u>Completion of Vantage to Pomona Heights transmission segment and the Aeolus to Bridger transmission segment</u>.

PacifiCorp completed and placed in-service the Vantage to Pomona Heights transmission segment in August 2020. Subsequently, PacifiCorp placed in-service the Aeolus to Bridger transmission segment in November 2020, both of which are similar to the Energy Gateway Project. As such, PacifiCorp has prepared this filing to update its Transmission System loss factor following the full calendar year of commercial operation for the Aeolus to Bridger transmission segment (*i.e.*, 2021).

c. <u>Timing of filing</u>.

Section 3.6.9 of the Settlement Agreement provides that, once triggered, PacifiCorp's update to its Transmission System loss factor would be filed on or before

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[6] The updated Transmission System loss factor in OATT Schedule 10 also resulted in an update to the combination loss factor that is the sum of the transmission and distribution loss factors for uses of PacifiCorp's Transmission System and Distribution System, of 7.82%. PacifiCorp's distribution system loss factors were updated to 4.14%, effective January 1, 2022, in a Letter Order issued on December 21, 2021, in Docket No. ER22-65.

[7] The Energy Gateway transmission expansion program was originally announced in 2007. It is a multi-year, multi-billion-dollar transmission expansion plan aimed at adding more than 2,000 megawatts of new transmission across the West. More information on the plan and associated transmission segments can be located at: http://www.pacificorp.com/tran/tp/eg.html

[8] PacifiCorp's first filing under Section 3.6.9 of the Settlement Agreement was submitted in Docket No. E15-1524. PacifiCorp's second filing under Section 3.6.9 of the Settlement Agreement was submitted in Docket No. ER22-65.

April 1 following the full calendar year of commercial operation for the second of every two Energy Gateway Project segments (or substantially similar transmission segments or a combination thereof). PacifiCorp acknowledges that is it making this filing after April 1 of the calendar year following the full calendar year of commercial operation of the Aeolus to Bridger transmission segment. However, as noted earlier the update filing is required to be based on PacifiCorp's most recent FERC Form No. 1 data for the prior calendar year. PacifiCorp filed its FERC Form No. 1 on April 13, 2022, which lead to the need to delay the timing of this filing to update the Transmission System loss factor.

PacifiCorp notified the Settling Parties – Bonneville Power Administration, Deseret Power, Utah Associated Municipal Power Systems, and Utah Municipal Power Agency – of the need to make this filing shortly after the filing of its 2021 FERC Form No. 1. PacifiCorp received no opposition provided that potential intervenors are afforded a typical time frame (i.e., 21 days) to review the filing. PacifiCorp agrees with the Settling Parties.

## II. Summary of Proposed Changes and Loss Factor Methodology

a. Changes in loss factor.

This filing contains a proposed amendment to Schedule 10 of PacifiCorp's OATT to reflect: (1) a Transmission System loss factor of 4.30%, which is an increase from the current Transmission System loss factor of 3.75%. In addition, Schedule 10 of PacifiCorp's OATT includes an amendment to reflect the resulting combination loss factor of 8.44%, which is the result of adding the updated Transmission System loss factor of 4.30% and the existing distribution loss factor of 4.14% for uses of PacifiCorp's Transmission and Distribution Systems.[9]

As described in detail below, PacifiCorp followed the loss calculation and methodology pursuant to Appendix 16 and Appendix 17 of the Settlement Agreement. Contributing factors to the increase in the Transmission System loss factor based on 2021 FERC Form No. 1 data over 2020 FERC Form No. 1 data include:

- an increase in total energy losses from 3.8m megawatt hours in 2020 to 4.3m megawatt hours in 2021;

- an increase in the proportion of transmission sales to ultimate customers from 12.7m megawatt hours in 2020 to 13.5m megawatt hours in 2021 relative to an increase in distribution sales to ultimate customers; and

- a decrease in off-system sales and purchases from 3.2m megawatt hours in 2020 to 2.3m megawatt hours in 2021.

[9] PacifiCorp is not proposing to update its loss factor for use of its Distribution System in this filing.

Each of these factors contributed to an increase in the proposed Transmission System loss factor and in particular, the increase in total system resources of 61.6m megawatt hours in 2020 to approximately 69.1m megawatt hours in 2021.

b. Loss calculation and methodology.

PacifiCorp's calculations resulting in the updated Transmission System loss factor are demonstrated in the enclosed Loss Factor Calculation. The calculations in the Loss Factor Calculation are consistent with Appendix 16 of the Settlement Agreement.

To reinforce this and assist in the review of the calculation, PacifiCorp includes herewith as Enclosure 4 a matrix identifying the source materials, assumptions, and underlying calculations for each input of the Loss Factor Calculation. Consistent with the Settlement Agreement, PacifiCorp used the methodology outlined in the Loss Analysis Methodology in recalculating its Transmission System loss factor, using 2021 data from its FERC Form No. 1 and other settlement data.

The Loss Factor Calculation spreadsheet enclosed in this filing as Enclosure 3 is structured in the following components, which contribute to the calculation of the resulting Transmission System loss factor:

- **Input data from PacifiCorp's 2021 FERC Form No. 1 page 401a:** This includes the white-shaded section that summarizes data sourced directly from the FERC Form No. 1 and lists the total energy sources (received) and uses (delivered) on PacifiCorp's transmission system.

- **Recalculated and Adjusted Received and Delivered Energy:** This includes the green-shaded section that identifies the component and contract types of energy received including amount of energy received for losses as reported in the FERC Form No. 1. No adjustments were identified to the 2021 FERC Form No 1 data for modeling of the 2021 Loss Study.

- **Transmission and Distribution Losses Adjustments and Allocation:** This includes the yellow-shaded heading and following section that demonstrates the calculations and amounts used to complete the adjustments made to the received and delivered inputs in the green-shaded section described above under "Recalculated and Adjusted Received and Delivered Energy". This section also includes the allocation of losses between transmission and distribution.

The Loss Factor Calculation includes Attachments A through E that provide supporting documentation for the data used in the sections described above and as detailed in the matrix provided as Enclosure 4 to this filing. These attachments were included with the 2010 Loss Factor Calculation. For this Loss Factor Calculation, PacifiCorp has added as Attachment F an additional supporting workpaper titled "2021 Off-System Sales/Purchases Summary". This attachment details the volume of PacifiCorp Energy's off-system transactions sourced from Company e-Tag data, which is deducted from 401a line 24, "Non-requirements Sales for Resale".

In addition to the Loss Factor Calculation spreadsheet, in Docket No. ER15-1524, intervenors raised concerns about the impact of E-Tag queries used by PacifiCorp and the impact on the resulting Transmission System Loss factor. In response to these concerns, PacifiCorp includes Enclosure 5 to this filing, which provides a high-level explanation of the minor filter adjustments PacifiCorp made to the 2010 E-Tag query used in Docket No. ER11-3643.

c. Adjustments to FERC Form No. 1 reporting practices and calculation methodology.

In addition, in the Loss Analysis Methodology, PacifiCorp committed to adjust its FERC Form No. 1 reporting practices and calculation methodology so that the data used would more closely tie to its FERC Form No. 1 on an ongoing basis. Specifically, PacifiCorp has made the following changes to its FERC Form No. 1 page 328 and Loss Factor Calculation consistent with the commitments outlined in the Loss Analysis Methodology:

- Page 328 includes an accrual variance entry to reflect calendar year amounts of energy received and delivered. The Loss Factor Calculation (Enclosure 3) contains an itemization of the accrual amount in megawatt hours per the components used in the Loss Factor Calculation as shown on Attachment C, "Accrual Received".

- The Loss Factor Calculation on Attachment C and through items 16 and 17 separately specifies energy and loss amounts associated with Western Area Power Administration ("WAPA") rate schedules as reported in the Form 1, page 329, and page 401a, lines 16 and 17.

- Page 328 no longer includes accounting amounts related to WAPA rate schedule 262 tracking for water rights, which does not impact transmission energy delivered or received.

- The value of line 24 as reported in the FERC Form No. 1 page 401a, "Non-requirements Sales for Resale" is adjusted to remove 1) bus sales at locations where PacifiCorp transmission was not utilized with source data from either e-Tag records or Electric Quarterly Report entries as shown in the Loss Factor Calculation item 16, and 2) on-system sales to others for purposes of load service within PacifiCorp's Balancing Authority Area as shown in the Loss Factor Calculation item 15.

- Retail customers taking service under transmission voltages do not include distribution losses as shown in the Loss Factor Calculation item 30.

## III. Rate Impact to Customers and Statements BG/BH

PacifiCorp has calculated an estimated revenue impact of the revised Transmission System loss factor and the estimated impact to transmission customers. To determine the effect, PacifiCorp calculated the estimated change in annual revenue if the proposed Transmission System loss factor of 4.30% had been in effect in 2021 instead of the current Transmission System loss factor of 3.75%.

The estimated revenue impact of the proposed Transmission System loss factor is shown in Enclosure 1 to the filing: Statement BG (Revenue data to reflect changed rates) and Statement BH (Revenue data to reflect present rates). The billing determinants for the Statements BG/BH revenue calculation reflect the actual billing units of services provided to transmission customers in 2021. The estimated impact on revenue for 2021 resulting from the update is an increase of approximately $433,192 or approximately 0.09% of total annual revenue for the 12-month period ending December 31, 2021.

## IV. Enclosures

The following enclosures are included in this filing:

- Enclosure 1 – Statements BG and BH demonstrating the revenue impact of the proposed change to Schedule 10 of PacifiCorp's OATT;

- Enclosure 2 – Revised Schedule 10 of PacifiCorp's OATT (clean and redlined versions);

- Enclosure 3 – Loss Factor Calculation, consistent with Appendix 16 of the Settlement Agreement;

- Enclosure 4 – Matrix explaining the inputs, source material, and assumptions used in the Loss Factor Calculation, consistent with Appendix 17 of the Settlement Agreement; and

- Enclosure 5 – A high level explanation of the adjustments to filters made to the 2010 E-Tag query from Docket No. ER11-3643.

In addition to the items provided in the enclosures described above, the Loss Factor Calculation provided in Enclosure 3 has been made available in native format on PacifiCorp's OASIS website at the address listed in Section VII below.

## V. Effective Date and Requests for Waiver

Pursuant to 18 C.F.R. § 35.11, PacifiCorp respectfully requests waiver of the Commission's notice requirement to permit an effective date for the amended OATT Schedule 10 of June 1, 2022. The Commission may provide that tariff revisions shall be effective as of a date prior to date they would otherwise become effective under the

Commission's regulations, for good cause shown.[10] The Commission will ordinarily find good cause for granting waiver of the prior notice requirement if: (1) the filing reduces rates and charges; or (2) the filing increases rates and the rate change and effective date are prescribed by contract, such as annual rate revisions required by contract to become effective on a date specified in the contract.[11]

Good cause exists in this case because the Settlement Agreement required: (1) the updated loss factor to be based on PacifiCorp's 2021 FERC Form No. 1, which was filed on April 13, 2022, and, accordingly, impacted the timing of this filing, and (2) a June 1 effective date for the amended OATT Schedule 10 coincides with the new transmission charges reflected in PacifiCorp's next annual update of its formula transmission rate, which will be effective June 1, 2022.

To the extent necessary, PacifiCorp requests waiver of the full requirements of 18 C.F.R. § 35.13, as good cause exists for granting a waiver of the requirement to file the full range of information required by Section 35.13. The Commission has previously granted waiver of the requirement that utilities provide all of the cost-of-service information required by Section 35.13 in similar cases.[12] PacifiCorp respectfully requests waiver of any requirements of the Commission's rules and regulations, as well as any authorizations as may be necessary or required, to permit the revised Transmission System loss factor and combination loss factor to be accepted by FERC and made effective in the manner proposed herein.

## VI. Communications

All communications and correspondence regarding this filing should be forwarded to the following persons:

| | |
|---|---|
| Matthew Loftus<br>Assistant General Counsel<br>PacifiCorp<br>825 NE Multnomah St., Suite 1600<br>Portland, OR 97232<br>Phone: (503) 813-5000<br>Matthew.Loftus@pacificorp.com | Rick Vail<br>Vice President, Transmission<br>PacifiCorp<br>825 NE Multnomah St., Suite 1600<br>Portland, OR 97232<br>Phone: (503) 813-6938<br>Richard.Vail@pacificorp.com |

## VII. Service

PacifiCorp is providing an electronic copy of this filing to all transmission customers pursuant to PacifiCorp's OATT, if such customers have provided PacifiCorp an e-mail contact address. To the extent that any such customers have not provided PacifiCorp a contact e-mail, PacifiCorp has served such customers with a hard copy of this filing to the last customer mailing address on file.

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[10] 18 C.F.R. § 35.11.

[11] *See Central Hudson Gas & Elec. Corp.*, 60 FERC ¶ 61,106 at 61,338 (1992).

[12] *See, e.g., Westar Energy, Inc.*, 131 FERC ¶ 61,183 at P 21 (2010).

In addition, PacifiCorp posts this filing on its OASIS website: http://www.oatioasis.com/ppw/. The filing is centralized in the following folder on the OASIS site: "Transmission System Loss Factor 2022."[13] As indicated above, the posting includes not only the items included in this filing but also the Loss Factor Calculation in Enclosure 3 in native format.

For the foregoing reasons, PacifiCorp respectfully requests that the Commission accept PacifiCorp's this filing, effective June 1, 2022, as requested. If you have any questions, or if I can be of further assistance, please do not hesitate to contact me.

Respectfully Submitted,

*/s/ Matthew Loftus*
Matthew Loftus

*Attorney for PacifiCorp*

[13] See following folder location: PacifiCorp OASIS Tariff/Company Information/OATT Pricing/Transmission System Loss Factor 2022.

## CERTIFICATE OF SERVICE

I hereby certify that I have on this day caused a copy of the foregoing document to be served via first-class mail or electronic mail upon each of the parties listed in the enclosed Service List.

Dated at Portland, Oregon this 15th day of April 2022.

__*/s/ Christian Marble*____
Christian Marble
Sr. Communications Rep
PacifiCorp
825 NE Multnomah St
Suite 2000
Portland, OR 97232
(503) 813-6640
christian.marble@pacificorp.com

# Enclosure 1

## Statements BG and BH

**PACIFICORP**
**ANNUAL COMPARISON**
**OATT PARTS II & III SERVICE AND LEGACY AGREEMENTS**
**2021**

| Line | Service/ Customer: Service Agreement ("SA") No. | **Present** (revenues under current loss system factor) | **Changed** (revenues under proposed loss system factor) | **Absolute difference** (changed *minus* present) | Percent difference |
|---|---|---|---|---|---|
| | **OATT Part II Long-Term Firm Point-to-Point Transmission Service** | | | | |
| 1 | PacifiCorp: Various | $ 91,367,408 | $ 91,620,045 | $ 252,636 | 0.28% |
| 2 | Avangrid: SA 895 | 1,101,751 | 1,104,750 | 2,999 | 0.27% |
| 3 | Black Hills, Inc.: SA 67 | 1,836,252 | 1,841,250 | 4,998 | 0.27% |
| 4 | BPA: SA 656 | 2,056,603 | 2,062,200 | 5,598 | 0.27% |
| 5 | City of Roseville: SA 881 | 1,765,341 | 1,765,341 | - | 0.00% |
| 6 | Clatskanie Peoples Utiliti District: SA 899 | 477,426 | 478,725 | 1,299 | 0.27% |
| 7 | Clatskanie Peoples Utiliti District: SA 901 | 73,450 | 73,650 | 200 | 0.27% |
| 8 | Evergreen Bio: SA 874 | 367,250 | 368,250 | 1,000 | 0.27% |
| 9 | Idaho Power: SA 212 | 809,439 | 813,730 | 4,291 | 0.53% |
| 10 | Thermo No 1 (CRYQ): SA 568 | 403,976 | 405,075 | 1,100 | 0.27% |
| 11 | Powerex: SA 169 | 2,938,004 | 2,946,000 | 7,996 | 0.27% |
| 12 | Powerex: SA 700 | 3,530,681 | 3,530,681 | - | 0.00% |
| 13 | Powerex: SA 701 | 3,530,681 | 3,530,681 | - | 0.00% |
| 14 | Powerex: SA 702 | 3,530,681 | 3,530,681 | - | 0.00% |
| 15 | Powerex: SA 748 | 1,765,341 | 1,765,341 | - | 0.00% |
| 16 | Powerex: SA 749 | 5,296,022 | 5,296,022 | - | 0.00% |
| 17 | Powerex: SA 995 | 3,530,681 | 3,530,681 | - | 0.00% |
| 18 | Powerex: SA 996 | 3,530,681 | 3,530,681 | - | 0.00% |
| 19 | Powerex: SA 1016 | 1,942,654 | 1,952,953 | 10,298 | 0.53% |
| 20 | Powerex: SA 1017 | 1,942,654 | 1,952,953 | 10,298 | 0.53% |
| 21 | NextEra: : SA 733 | 3,328,193 | 3,336,458 | 8,265 | 0.25% |
| 22 | State of SD: SA 779 | 146,900 | 147,300 | 400 | 0.27% |
| 23 | Sacramento Muncipal Utility District: SA 863 | 697,776 | 699,675 | 1,899 | 0.27% |
| 24 | Salt River Project: SA 809 | 918,126 | 920,625 | 2,499 | 0.27% |
| 25 | EWEB: SA 605 | 918,126 | 920,625 | 2,499 | 0.27% |
| 26 | Garrrett Solar: SA 966 | 367,250 | 368,250 | 1,000 | 0.27% |
| 27 | Airport Solar: SA 965 | 1,836,252 | 1,841,250 | 4,998 | 0.27% |
| 28 | Falls Creek: SA868 | 151,249 | 151,577 | 328 | 0.22% |
| 29 | Subtotal | $ 140,160,849 | $ 140,485,449 | $ 324,600 | 0.23% |
| | **OATT Part III - Network Service (these loads already include losses)** | | | | |
| 30 | PacifiCorp: SA 66 | $ 309,007,192 | $ 309,007,192 | $ - | 0.00% |
| 31 | BPA Yakama: SA 328 | 193,836 | 194,373 | 537 | 0.28% |
| 32 | BPA Gazley: SA 229 | 117,664 | 118,005 | 341 | 0.29% |
| 33 | BPA Clarke PUD: SA 735 | 819,535 | 821,618 | 2,083 | 0.25% |
| 34 | BPA: Benton REA: SA 539 | 26,375 | 26,430 | 55 | 0.21% |
| 35 | BPA Oregon Wind: SA 538 | 9,822 | 9,839 | 16 | 0.17% |
| 36 | BPA CEC: SA 827 | 1,988 | 1,992 | 4 | 0.22% |
| 37 | BPA Airport Solar: SA 865 | 1,849 | 1,853 | 4 | 0.21% |
| 38 | BPA WEID: SA 975 | 22,784 | 22,882 | 98 | 0.43% |
| 39 | Tri-State: SA 628 | 582,866 | 584,346 | 1,480 | 0.25% |
| 40 | Calpine Energy Solutions LLC: SA 299 | 583,061 | 584,798 | 1,738 | 0.30% |
| 41 | Basin Electric: SA 505 | 358,074 | 359,084 | 1,010 | 0.28% |
| 42 | Black Hills: SA 347 | 1,605,597 | 1,605,597 | - | 0.00% |
| 43 | USBR : SA 506 | 10,566 | 10,606 | 40 | 0.38% |
| 44 | WAPA: SA 175 | 47,660 | 47,840 | 179 | 0.38% |
| 45 | Avangrid Renewables, LLC: SA 742 | 1,213,563 | 1,216,840 | 3,278 | 0.27% |
| 46 | Exelon: SA 943 | 50,090 | 50,244 | 154 | 0.31% |
| 47 | BPA South East Idaho: SA 746 | 7,545,422 | 7,558,305 | 12,883 | 0.17% |
| 48 | BPA Idaho Falls: SA 747 | 3,341,762 | 3,352,146 | 10,384 | 0.31% |
| 49 | 3 Phases Renewables Inc.: SA 876 | - | - | - | 0.00% |
| 50 | NTUA: SA 894 | 76,151 | 76,339 | 188 | 0.25% |
| 51 | Subtotal | $ 325,615,855 | $ 325,650,327 | $ 34,472 | 0.01% |
| | **Legacy Agreements (these loads already include losses)** | | | | |
| 52 | UAMPS: RS 297 | $ 19,701,991 | $ 19,750,099 | $ 48,108 | 0.24% |
| 53 | UMPA: RS 637 | 3,050,804 | 3,061,726 | 10,922 | 0.36% |
| 54 | Deseret: RS 280 | 4,998,740 | 5,013,829 | 15,090 | 0.30% |
| 55 | Western Area Power Administration: RS 262/263 | - | - | - | 0.00% |
| 56 | Subtotal (Legacy Agreements) | $ 27,751,534 | $ 27,825,654 | $ 74,120 | 0.27% |
| | **Total** | $ 493,528,238 | $ 493,961,430 | $ 433,192 | 0.09% |

**PACIFICORP**
**STATEMENT BH — REVENUE DATA TO REFLECT PRESENT RATES**
**OATT PARTS II & III SERVICE AND LEGACY AGREEMENTS**
**2021**

Current Transmission Loss System Factor **4.45% / 3.75%**

| Line | Service/ Customer: Service Agreement ("SA")/Rate Schedule ("RS") No. | fn | January | February | March | April | May | June | July | August | September | October | November | December | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **OATT Part II Long-Term Firm Point-to-Point Transmission Service (we add on the losses %)** | | | | | | | | | | | | | | |
| 1 | PacifiCorp: Various | | $ 6,878,517 | $ 6,878,517 | $ 6,878,517 | $ 6,878,517 | $ 6,878,517 | $ 8,227,143 | $ 8,227,143 | $ 8,227,143 | $ 8,227,143 | $ 8,227,143 | $ 7,919,555 | $ 7,919,555 | $ 91,367,408 |
| 2 | Avangrid: SA 895 | | 84,364 | 84,364 | 84,364 | 84,364 | 84,364 | 97,133 | 97,133 | 97,133 | 97,133 | 97,133 | 97,133 | 97,133 | 1,101,751 |
| 3 | Black Hills, Inc.: SA 67 | | 140,607 | 140,607 | 140,607 | 140,607 | 140,607 | 161,888 | 161,888 | 161,888 | 161,888 | 161,888 | 161,888 | 161,888 | 1,836,252 |
| 4 | BPA: SA 656 | | 157,480 | 157,480 | 157,480 | 157,480 | 157,480 | 181,314 | 181,314 | 181,314 | 181,314 | 181,314 | 181,314 | 181,314 | 2,056,603 |
| 5 | City of Roseville: SA 881 | [1] | 134,617 | 134,617 | 134,617 | 134,617 | 134,617 | 156,037 | 156,037 | 156,037 | 156,037 | 156,037 | 156,037 | 156,037 | 1,765,341 |
| 6 | Clatskanie Peoples Utiliti District: SA 899 | | 36,558 | 36,558 | 36,558 | 36,558 | 36,558 | 42,091 | 42,091 | 42,091 | 42,091 | 42,091 | 42,091 | 42,091 | 477,426 |
| 7 | Clatskanie Peoples Utiliti District: SA 901 | | 5,624 | 5,624 | 5,624 | 5,624 | 5,624 | 6,476 | 6,476 | 6,476 | 6,476 | 6,476 | 6,476 | 6,476 | 73,450 |
| 8 | Evergreen Bio: SA 874 | | 28,121 | 28,121 | 28,121 | 28,121 | 28,121 | 32,378 | 32,378 | 32,378 | 32,378 | 32,378 | 32,378 | 32,378 | 367,250 |
| 9 | Idaho Power: SA 212 | | - | - | - | - | - | 161,888 | 161,888 | 161,888 | 161,888 | 161,888 | - | - | 809,439 |
| 10 | Thermo No 1 (CRYQ): SA 568 | | 30,934 | 30,934 | 30,934 | 30,934 | 30,934 | 35,615 | 35,615 | 35,615 | 35,615 | 35,615 | 35,615 | 35,615 | 403,976 |
| 11 | Powerex: SA 169 | | 224,972 | 224,972 | 224,972 | 224,972 | 224,972 | 259,021 | 259,021 | 259,021 | 259,021 | 259,021 | 259,021 | 259,021 | 2,938,004 |
| 12 | Powerex: SA 700 | [1] | 269,234 | 269,234 | 269,234 | 269,234 | 269,234 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 3,530,681 |
| 13 | Powerex: SA 701 | [1] | 269,234 | 269,234 | 269,234 | 269,234 | 269,234 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 3,530,681 |
| 14 | Powerex: SA 702 | [1] | 269,234 | 269,234 | 269,234 | 269,234 | 269,234 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 3,530,681 |
| 15 | Powerex: SA 748 | [1] | 134,617 | 134,617 | 134,617 | 134,617 | 134,617 | 156,037 | 156,037 | 156,037 | 156,037 | 156,037 | 156,037 | 156,037 | 1,765,341 |
| 16 | Powerex: SA 749 | [1] | 403,851 | 403,851 | 403,851 | 403,851 | 403,851 | 468,110 | 468,110 | 468,110 | 468,110 | 468,110 | 468,110 | 468,110 | 5,296,022 |
| 17 | Powerex: SA 995 | [1] | 269,234 | 269,234 | 269,234 | 269,234 | 269,234 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 3,530,681 |
| 18 | Powerex: SA 996 | [1] | 269,234 | 269,234 | 269,234 | 269,234 | 269,234 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 3,530,681 |
| 19 | Powerex: SA 1016 | | - | - | - | - | - | - | 323,776 | 323,776 | 323,776 | 323,776 | 323,776 | 323,776 | 1,942,654 |
| 20 | Powerex: SA 1017 | | - | - | - | - | - | - | 323,776 | 323,776 | 323,776 | 323,776 | 323,776 | 323,776 | 1,942,654 |
| 21 | NextEra: : SA 733 | | 278,403 | 278,403 | 278,403 | 278,403 | 278,403 | 259,021 | 259,021 | 259,021 | 259,021 | 259,021 | 320,538 | 320,538 | 3,328,193 |
| 22 | State of SD: SA 779 | | 11,249 | 11,249 | 11,249 | 11,249 | 11,249 | 12,951 | 12,951 | 12,951 | 12,951 | 12,951 | 12,951 | 12,951 | 146,900 |
| 23 | Sacramento Muncipal Utility District: SA 863 | | 53,431 | 53,431 | 53,431 | 53,431 | 53,431 | 61,517 | 61,517 | 61,517 | 61,517 | 61,517 | 61,517 | 61,517 | 697,776 |
| 24 | Salt River Project: SA 809 | | 70,304 | 70,304 | 70,304 | 70,304 | 70,304 | 80,944 | 80,944 | 80,944 | 80,944 | 80,944 | 80,944 | 80,944 | 918,126 |
| 25 | EWEB: SA 605 | | 70,304 | 70,304 | 70,304 | 70,304 | 70,304 | 80,944 | 80,944 | 80,944 | 80,944 | 80,944 | 80,944 | 80,944 | 918,126 |
| 26 | Garrrett Solar: SA 966 | | 28,121 | 28,121 | 28,121 | 28,121 | 28,121 | 32,378 | 32,378 | 32,378 | 32,378 | 32,378 | 32,378 | 32,378 | 367,250 |
| 27 | Airport Solar: SA 965 | | 140,607 | 140,607 | 140,607 | 140,607 | 140,607 | 161,888 | 161,888 | 161,888 | 161,888 | 161,888 | 161,888 | 161,888 | 1,836,252 |
| 28 | Falls Creek: SA868 | | 14,061 | 14,061 | 14,061 | 14,061 | 14,061 | 16,189 | 3,238 | 3,238 | 9,713 | 16,190 | 16,189 | 16,189 | 151,249 |
| 29 | Subtotal | | $ 10,272,913 | $ 10,272,913 | $ 10,272,913 | $ 10,272,913 | $ 10,272,913 | $ 12,251,324 | $ 12,885,925 | $ 12,885,925 | $ 12,892,400 | $ 12,898,877 | $ 12,490,917 | $ 12,490,917 | $ 140,160,849 |
| | **OATT Part III - Network Service (these loads already include losses)** | | | | | | | | | | | | | | |
| 30 | PacifiCorp: SA 66 | [1] | $ 22,168,604 | $ 21,380,900 | $ 20,320,075 | $ 19,108,967 | $ 22,195,535 | $ 33,563,782 | $ 33,894,504 | $ 32,912,401 | $ 29,519,060 | $ 22,824,436 | $ 23,943,704 | $ 27,175,223 | $ 309,007,192 |
| 31 | BPA Yakama: SA 328 | | 12,382 | 15,271 | 14,937 | 15,839 | 12,721 | 18,912 | 16,693 | 19,829 | 17,186 | 18,247 | 16,025 | 15,794 | 193,836 |
| 32 | BPA Gazley: SA 229 | | 8,023 | 8,002 | 8,551 | 8,707 | 8,729 | 12,942 | 11,578 | 11,653 | 10,092 | 9,128 | 10,174 | 10,086 | 117,664 |
| 33 | BPA Clarke PUD: SA 735 | | 79,184 | 74,785 | 70,074 | 69,247 | 42,351 | 72,960 | 50,347 | 68,918 | 43,647 | 76,773 | 70,744 | 100,506 | 819,535 |
| 34 | BPA: Benton REA: SA 539 | | 2,927 | 3,115 | 2,822 | 2,455 | 1,244 | 1,186 | 1,233 | 1,201 | 889 | 2,266 | 2,362 | 4,675 | 26,375 |
| 35 | BPA Oregon Wind: SA 538 | | - | 1,597 | 985 | 1,473 | 1,233 | - | 1,211 | 509 | 1,180 | - | 1,629 | 6 | 9,822 |
| 36 | BPA CEC: SA 827 | | 490 | 433 | - | - | - | - | - | - | - | - | 499 | 565 | 1,988 |
| 37 | BPA Airport Solar: SA 865 | [1] | 477 | 396 | - | - | - | - | 3 | - | 278 | - | 331 | 365 | 1,849 |
| 38 | BPA WEID: SA 975 | | 30 | 32 | 32 | 30 | 3,309 | 5,352 | 4,466 | 4,335 | 3,189 | 1,947 | 31 | 31 | 22,784 |
| 39 | Tri-State: SA 628 | | 54,994 | 52,288 | 57,743 | 52,350 | 39,023 | 41,278 | 46,502 | 53,992 | 36,725 | 53,648 | 37,751 | 56,573 | 582,866 |
| 40 | Calpine Energy Solutions LLC: SA 299 | | 40,627 | 38,622 | 39,682 | 38,675 | 43,258 | 62,798 | 54,201 | 62,739 | 56,523 | 49,779 | 51,205 | 44,951 | 583,061 |
| 41 | Basin Electric: SA 505 | | 27,131 | 28,641 | 24,718 | 23,749 | 27,594 | 31,029 | 36,450 | 34,590 | 33,573 | 28,096 | 26,127 | 36,375 | 358,074 |
| 42 | Black Hills: SA 347 | [1] | 123,201 | 131,009 | 118,301 | 107,828 | 98,755 | 152,635 | 185,309 | 170,173 | 149,233 | 98,334 | 113,033 | 157,784 | 1,605,597 |
| 43 | USBR : SA 506 | | 13 | 13 | 13 | 972 | 1,349 | 1,860 | 1,869 | 1,888 | 1,632 | 921 | 19 | 16 | 10,566 |
| 44 | WAPA: SA 175 | | 11 | 11 | 13 | 2,660 | 8,225 | 10,061 | 10,426 | 9,328 | 6,831 | 37 | 28 | 28 | 47,660 |
| 45 | Avangrid Renewables, LLC: SA 742 | | 95,653 | 93,413 | 93,427 | 92,980 | 92,918 | 109,606 | 108,296 | 108,536 | 106,692 | 105,478 | 103,168 | 103,396 | 1,213,563 |
| 46 | Exelon: SA 943 | | 3,040 | 3,775 | 3,312 | 3,592 | 2,881 | 5,271 | 5,418 | 5,673 | 5,062 | 3,920 | 4,250 | 3,898 | 50,090 |
| 47 | BPA South East Idaho: SA 746 | | 738,355 | 706,925 | 733,636 | 554,353 | 405,717 | 615,804 | 629,248 | 526,917 | 435,957 | 587,590 | 616,332 | 994,589 | 7,545,422 |
| 48 | BPA Idaho Falls: SA 747 | | 306,693 | 309,926 | 283,353 | 81,161 | 166,395 | 334,558 | 339,089 | 314,713 | 277,283 | 274,886 | 264,429 | 389,277 | 3,341,762 |
| 49 | 3 Phases Renewables Inc.: SA 876 | | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 50 | NTUA: SA 894 | | 6,868 | 6,556 | 6,489 | 5,059 | 5,124 | 7,318 | 8,520 | 7,970 | 7,886 | 6,082 | - | 8,279 | 76,151 |
| 51 | Subtotal | | $ 23,668,703 | $ 22,855,710 | $ 21,778,163 | $ 20,170,096 | $ 23,156,359 | $ 35,047,352 | $ 35,405,362 | $ 34,315,366 | $ 30,712,917 | $ 24,141,568 | $ 25,261,841 | $ 29,102,418 | $ 325,615,855 |
| | **Legacy Agreements (these loads already include losses)** | | | | | | | | | | | | | | |
| 52 | UAMPS: RS 297 | | $ 1,149,842 | $ 1,077,313 | $ 1,020,184 | $ 1,114,120 | $ 1,475,103 | $ 2,282,489 | $ 2,715,637 | $ 2,602,979 | $ 2,408,570 | $ 1,171,466 | $ 1,244,909 | $ 1,439,377 | $ 19,701,991 |
| 53 | UMPA: RS 637 | | 151,035 | 155,744 | 116,436 | 203,519 | 151,770 | 393,496 | 487,442 | 459,309 | 426,373 | 155,128 | 183,624 | 166,928 | 3,050,804 |
| 54 | Deseret: RS 280 | | 289,413 | 294,251 | 255,805 | 378,766 | 293,753 | 516,865 | 592,411 | 707,541 | 484,300 | 426,033 | 401,023 | 358,578 | 4,998,740 |
| 55 | Western Area Power Administration: RS 262/263 | | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 56 | **Subtotal** (Legacy Agreements) | | $ 1,590,290 | $ 1,527,308 | $ 1,392,424 | $ 1,696,406 | $ 1,920,627 | $ 3,192,850 | $ 3,795,491 | $ 3,769,829 | $ 3,319,243 | $ 1,752,627 | $ 1,829,556 | $ 1,964,883 | $ 27,751,534 |
| | **Change** | | | | | | | | | | | | | | |
| 57 | Updated revenues with proposed loss factor (From Statement BG) | | $ 35,516,492 | $ 34,640,145 | $ 33,427,730 | $ 32,123,939 | $ 35,335,029 | $ 50,562,925 | $ 52,163,448 | $ 51,047,627 | $ 46,999,829 | $ 38,863,937 | $ 39,650,087 | $ 43,630,242 | $ 493,961,430 |
| 58 | Revenues with current loss factor | | 35,531,905 | 34,655,931 | 33,443,500 | 32,139,414 | 35,349,898 | 50,491,526 | 52,086,778 | 50,971,120 | 46,924,560 | 38,793,072 | 39,582,314 | 43,558,218 | 493,528,238 |
| 59 | Absolute Difference (*proposed* minus *current* ) | | $ (15,413) | $ (15,786) | $ (15,770) | $ (15,475) | $ (14,869) | $ 71,399 | $ 76,670 | $ 76,506 | $ 75,269 | $ 70,865 | $ 67,773 | $ 72,025 | $ 433,192 |
| 60 | Percent Difference | | -0.04% | -0.05% | -0.05% | -0.05% | -0.04% | 0.14% | 0.15% | 0.15% | 0.16% | 0.18% | 0.17% | 0.17% | 0.09% |

Note [1] Per customers' contract agreements, no losses are included in customers' billing determinants.
Note [2] A value of zero in a month (designated by "-") indicates that the customer did not take service for that month.

**PACIFICORP**
**STATEMENT BG — REVENUE DATA TO REFLECT CHANGED RATES**
**OATT PARTS II & III SERVICE AND LEGACY AGREEMENTS**
**2021**

Proposed Transmission Loss System Factor **4.30%**

| Line | Service/ Customer: Service Agreement ("SA")/Rate Schedule ("RS") No. | fn | January | February | March | April | May | June | July | August | September | October | November | December | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **OATT Part II Long-Term Firm Point-to-Point Transmission Service (we add on the losses %)** | | | | | | | | | | | | | | |
| 1 | PacifiCorp: Various | | $ 6,868,639 | $ 6,868,639 | $ 6,868,639 | $ 6,868,639 | $ 6,868,639 | $ 8,270,755 | $ 8,270,755 | $ 8,270,755 | $ 8,270,755 | $ 8,270,755 | $ 7,961,538 | $ 7,961,538 | $ 91,620,045 |
| 2 | Avangrid: SA 895 | | 84,243 | 84,243 | 84,243 | 84,243 | 84,243 | 97,648 | 97,648 | 97,648 | 97,648 | 97,648 | 97,648 | 97,648 | 1,104,750 |
| 3 | Black Hills, Inc.: SA 67 | | 140,406 | 140,406 | 140,406 | 140,406 | 140,406 | 162,746 | 162,746 | 162,746 | 162,746 | 162,746 | 162,746 | 162,746 | 1,841,250 |
| 4 | BPA: SA 656 | | 157,254 | 157,254 | 157,254 | 157,254 | 157,254 | 182,276 | 182,276 | 182,276 | 182,276 | 182,276 | 182,276 | 182,276 | 2,062,200 |
| 5 | City of Roseville: SA 881 | [1] | 134,617 | 134,617 | 134,617 | 134,617 | 134,617 | 156,037 | 156,037 | 156,037 | 156,037 | 156,037 | 156,037 | 156,037 | 1,765,341 |
| 6 | Clatskanie Peoples Utiliti District: SA 899 | | 36,505 | 36,505 | 36,505 | 36,505 | 36,505 | 42,314 | 42,314 | 42,314 | 42,314 | 42,314 | 42,314 | 42,314 | 478,725 |
| 7 | Clatskanie Peoples Utiliti District: SA 901 | | 5,616 | 5,616 | 5,616 | 5,616 | 5,616 | 6,510 | 6,510 | 6,510 | 6,510 | 6,510 | 6,510 | 6,510 | 73,650 |
| 8 | Evergreen Bio: SA 874 | | 28,081 | 28,081 | 28,081 | 28,081 | 28,081 | 32,549 | 32,549 | 32,549 | 32,549 | 32,549 | 32,549 | 32,549 | 368,250 |
| 9 | Idaho Power: SA 212 | | - | - | - | - | - | 162,746 | 162,746 | 162,746 | 162,746 | 162,746 | - | - | 813,730 |
| 10 | Thermo No 1 (CRYQ): SA 568 | | 30,889 | 30,889 | 30,889 | 30,889 | 30,889 | 35,804 | 35,804 | 35,804 | 35,804 | 35,804 | 35,804 | 35,804 | 405,075 |
| 11 | Powerex: SA 169 | | 224,649 | 224,649 | 224,649 | 224,649 | 224,649 | 260,394 | 260,394 | 260,394 | 260,394 | 260,394 | 260,394 | 260,394 | 2,946,000 |
| 12 | Powerex: SA 700 | [1] | 269,234 | 269,234 | 269,234 | 269,234 | 269,234 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 3,530,681 |
| 13 | Powerex: SA 701 | [1] | 269,234 | 269,234 | 269,234 | 269,234 | 269,234 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 3,530,681 |
| 14 | Powerex: SA 702 | [1] | 269,234 | 269,234 | 269,234 | 269,234 | 269,234 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 3,530,681 |
| 15 | Powerex: SA 748 | [1] | 134,617 | 134,617 | 134,617 | 134,617 | 134,617 | 156,037 | 156,037 | 156,037 | 156,037 | 156,037 | 156,037 | 156,037 | 1,765,341 |
| 16 | Powerex: SA 749 | [1] | 403,851 | 403,851 | 403,851 | 403,851 | 403,851 | 468,110 | 468,110 | 468,110 | 468,110 | 468,110 | 468,110 | 468,110 | 5,296,022 |
| 17 | Powerex: SA 995 | [1] | 269,234 | 269,234 | 269,234 | 269,234 | 269,234 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 3,530,681 |
| 18 | Powerex: SA 996 | [1] | 269,234 | 269,234 | 269,234 | 269,234 | 269,234 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 312,073 | 3,530,681 |
| 19 | Powerex: SA 1016 | | - | - | - | - | - | - | 325,492 | 325,492 | 325,492 | 325,492 | 325,492 | 325,492 | 1,952,953 |
| 20 | Powerex: SA 1017 | | - | - | - | - | - | - | 325,492 | 325,492 | 325,492 | 325,492 | 325,492 | 325,492 | 1,952,953 |
| 21 | NextEra: : SA 733 | | 278,003 | 278,003 | 278,003 | 278,003 | 278,003 | 260,394 | 260,394 | 260,394 | 260,394 | 260,394 | 322,237 | 322,237 | 3,336,458 |
| 22 | State of SD: SA 779 | | 11,232 | 11,232 | 11,232 | 11,232 | 11,232 | 13,020 | 13,020 | 13,020 | 13,020 | 13,020 | 13,020 | 13,020 | 147,300 |
| 23 | Sacramento Muncipal Utility District: SA 863 | | 53,354 | 53,354 | 53,354 | 53,354 | 53,354 | 61,844 | 61,844 | 61,844 | 61,844 | 61,844 | 61,844 | 61,844 | 699,675 |
| 24 | Salt River Project: SA 809 | | 70,203 | 70,203 | 70,203 | 70,203 | 70,203 | 81,373 | 81,373 | 81,373 | 81,373 | 81,373 | 81,373 | 81,373 | 920,625 |
| 25 | EWEB: SA 605 | | 70,203 | 70,203 | 70,203 | 70,203 | 70,203 | 81,373 | 81,373 | 81,373 | 81,373 | 81,373 | 81,373 | 81,373 | 920,625 |
| 26 | Garrrett Solar: SA 966 | | 28,081 | 28,081 | 28,081 | 28,081 | 28,081 | 32,549 | 32,549 | 32,549 | 32,549 | 32,549 | 32,549 | 32,549 | 368,250 |
| 27 | Airport Solar: SA 965 | | 140,406 | 140,406 | 140,406 | 140,406 | 140,406 | 162,746 | 162,746 | 162,746 | 162,746 | 162,746 | 162,746 | 162,746 | 1,841,250 |
| 28 | Falls Creek: SA868 | | 14,041 | 14,041 | 14,041 | 14,041 | 14,041 | 16,275 | 3,255 | 3,255 | 9,765 | 16,276 | 16,275 | 16,275 | 151,577 |
| 29 | Subtotal | | $ 10,261,060 | $ 10,261,060 | $ 10,261,060 | $ 10,261,060 | $ 10,261,060 | $ 12,303,862 | $ 12,941,826 | $ 12,941,826 | $ 12,948,336 | $ 12,954,848 | $ 12,544,726 | $ 12,544,726 | $ 140,485,449 |
| | **OATT Part III - Network Service (these loads already include losses)** | | | | | | | | | | | | | | |
| 30 | PacifiCorp: SA 66 | [1] | $ 22,168,604 | $ 21,380,900 | $ 20,320,075 | $ 19,108,967 | $ 22,195,535 | $ 33,563,782 | $ 33,894,504 | $ 32,912,401 | $ 29,519,060 | $ 22,824,436 | $ 23,943,704 | $ 27,175,223 | $ 309,007,192 |
| 31 | BPA Yakama: SA 328 | | 12,363 | 15,249 | 14,916 | 15,815 | 12,705 | 19,008 | 16,780 | 19,932 | 17,273 | 18,344 | 16,109 | 15,878 | 194,373 |
| 32 | BPA Gazley: SA 229 | | 8,012 | 7,990 | 8,539 | 8,695 | 8,716 | 13,010 | 11,639 | 11,715 | 10,146 | 9,177 | 10,228 | 10,140 | 118,005 |
| 33 | BPA Clarke PUD: SA 735 | | 79,071 | 74,678 | 69,973 | 69,148 | 42,290 | 73,346 | 50,614 | 69,284 | 43,878 | 77,180 | 71,119 | 101,039 | 821,618 |
| 34 | BPA: Benton REA: SA 539 | | 2,922 | 3,111 | 2,818 | 2,452 | 1,242 | 1,192 | 1,239 | 1,208 | 894 | 2,278 | 2,375 | 4,700 | 26,430 |
| 35 | BPA Oregon Wind: SA 538 | | - | 1,594 | 984 | 1,471 | 1,231 | - | 1,217 | 511 | 1,186 | - | 1,638 | 6 | 9,839 |
| 36 | BPA CEC: SA 827 | | 489 | 433 | - | - | - | - | - | - | - | - | 502 | 568 | 1,992 |
| 37 | BPA Airport Solar: SA 865 | [1] | 476 | 395 | - | - | - | - | 3 | - | 279 | - | 333 | 367 | 1,853 |
| 38 | BPA WEID: SA 975 | | 30 | 32 | 32 | 30 | 3,304 | 5,380 | 4,489 | 4,358 | 3,206 | 1,958 | 31 | 31 | 22,882 |
| 39 | Tri-State: SA 628 | | 54,940 | 52,239 | 57,689 | 52,309 | 38,999 | 41,493 | 46,745 | 54,273 | 36,915 | 53,929 | 37,948 | 56,866 | 584,346 |
| 40 | Calpine Energy Solutions LLC: SA 299 | | 40,569 | 38,566 | 39,625 | 38,620 | 43,196 | 63,131 | 54,488 | 63,072 | 56,822 | 50,043 | 51,476 | 45,189 | 584,798 |
| 41 | Basin Electric: SA 505 | | 27,092 | 28,600 | 24,683 | 23,715 | 27,554 | 31,194 | 36,643 | 34,774 | 33,751 | 28,245 | 26,265 | 36,568 | 359,084 |
| 42 | Black Hills: SA 347 | [1] | 123,201 | 131,009 | 118,301 | 107,828 | 98,755 | 152,635 | 185,309 | 170,173 | 149,233 | 98,334 | 113,033 | 157,784 | 1,605,597 |
| 43 | USBR : SA 506 | | 13 | 13 | 13 | 971 | 1,347 | 1,870 | 1,879 | 1,898 | 1,641 | 926 | 19 | 16 | 10,606 |
| 44 | WAPA: SA 175 | | 11 | 11 | 13 | 2,656 | 8,213 | 10,115 | 10,482 | 9,377 | 6,867 | 38 | 28 | 28 | 47,840 |
| 45 | Avangrid Renewables, LLC: SA 742 | | 95,516 | 93,279 | 93,293 | 92,846 | 92,785 | 110,187 | 108,870 | 109,111 | 107,257 | 106,037 | 103,715 | 103,944 | 1,216,840 |
| 46 | Exelon: SA 943 | | 3,035 | 3,769 | 3,307 | 3,586 | 2,877 | 5,299 | 5,446 | 5,704 | 5,089 | 3,940 | 4,273 | 3,918 | 50,244 |
| 47 | BPA South East Idaho: SA 746 | | 737,233 | 705,878 | 732,508 | 553,618 | 405,550 | 617,755 | 630,291 | 527,690 | 437,626 | 590,448 | 619,705 | 1,000,004 | 7,558,305 |
| 48 | BPA Idaho Falls: SA 747 | | 306,658 | 309,482 | 282,946 | 81,042 | 166,155 | 336,330 | 340,887 | 316,380 | 278,753 | 276,344 | 265,830 | 391,340 | 3,352,146 |
| 49 | 3 Phases Renewables Inc.: SA 876 | | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 50 | NTUA: SA 894 | | 6,857 | 6,548 | 6,478 | 5,051 | 5,115 | 7,359 | 8,551 | 8,011 | 7,930 | 6,117 | - | 8,323 | 76,339 |
| 51 | Subtotal | | $ 23,667,092 | $ 22,853,778 | $ 21,776,193 | $ 20,168,819 | $ 23,155,569 | $ 35,053,087 | $ 35,410,078 | $ 34,319,871 | $ 30,717,807 | $ 24,147,771 | $ 25,268,331 | $ 29,111,932 | $ 325,650,327 |
| | **Legacy Agreements (these loads already include losses)** | | | | | | | | | | | | | | |
| 52 | UAMPS: RS 297 | | $ 1,148,445 | $ 1,075,778 | $ 1,018,728 | $ 1,112,610 | $ 1,473,518 | $ 2,290,794 | $ 2,725,967 | $ 2,612,897 | $ 2,418,188 | $ 1,177,077 | $ 1,250,427 | $ 1,445,672 | $ 19,750,099 |
| 53 | UMPA: RS 637 | | 150,820 | 155,520 | 116,269 | 203,229 | 151,552 | 395,577 | 490,026 | 461,740 | 428,632 | 155,952 | 184,597 | 167,811 | 3,061,726 |
| 54 | Deseret: RS 280 | | 289,077 | 294,009 | 255,482 | 378,223 | 293,330 | 519,605 | 595,551 | 711,292 | 486,865 | 428,289 | 402,006 | 360,101 | 5,013,829 |
| 55 | Western Area Power Administration: RS 262/263 | | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 56 | **Subtotal** (Legacy Agreements) | | $ 1,588,341 | $ 1,525,308 | $ 1,390,478 | $ 1,694,061 | $ 1,918,400 | $ 3,205,976 | $ 3,811,544 | $ 3,785,929 | $ 3,333,686 | $ 1,761,318 | $ 1,837,030 | $ 1,973,584 | $ 27,825,654 |
| | **Change** | | | | | | | | | | | | | | |
| 57 | Updated revenues with proposed loss factor | | $ 35,516,492 | $ 34,640,145 | $ 33,427,730 | $ 32,123,939 | $ 35,335,029 | $ 50,562,925 | $ 52,163,448 | $ 51,047,627 | $ 46,999,829 | $ 38,863,937 | $ 39,650,087 | $ 43,630,242 | $ 493,961,430 |
| 58 | Revenues with current loss factor (From Statement BH) | | 35,531,905 | 34,655,931 | 33,443,500 | 32,139,414 | 35,349,898 | 50,491,526 | 52,086,778 | 50,971,120 | 46,924,560 | 38,793,072 | 39,582,314 | 43,558,218 | 493,528,238 |
| 59 | Absolute Difference (*proposed* minus *current*) | | $ (15,413) | $ (15,786) | $ (15,770) | $ (15,475) | $ (14,869) | $ 71,399 | $ 76,670 | $ 76,506 | $ 75,269 | $ 70,865 | $ 67,773 | $ 72,025 | $ 433,192 |
| 60 | Percent Difference | | -0.04% | -0.05% | -0.05% | -0.05% | -0.04% | 0.14% | 0.15% | 0.15% | 0.16% | 0.18% | 0.17% | 0.17% | 0.09% |

Note [1] Per customers' contract agreements, no losses are included in customers' billing determinants.
Note [2] A value of zero in a month (designated by "-") indicates that the customer did not take service for that month.

**SCHEDULE 10**

**Real Power Losses**

**<u>For Service Over the Transmission Provider’s Transmission System</u>:**

Any use of the Transmission Provider's Transmission System, excluding EIM participation, shall be assessed Real Power Losses in the following amounts:

| | |
|---|---|
| Use of any portion of the Transmission System at a voltage of 46kV or greater | 4.30% |
| Use of any portion of the Distribution System at a voltage 34.5 kV or less | 4.14% |
| Use of a combination of the Transmission System and the Distribution System | 8.44% |

**<u>For Service on the PacifiCorp COI Segment</u>:**

Real Power Losses shall be calculated in accordance with Attachment S for Transmission Service on the PacifiCorp COI Segment.

**<u>Service Over PacifiCorp Facilities in Other Control Areas</u>:** For Transmission Service provided over PacifiCorp lines located in another control area, any Real Power Losses assessed to PacifiCorp by the adjacent control area associated with the Customer’s service will be passed through to the Transmission Customer. In instances where service is provided by PacifiCorp and an adjacent control area, any Real Power Losses assessed by the adjacent control area to PacifiCorp will be passed through to the Transmission Customer in addition to PacifiCorp Real Power Losses identified in this section.

**<u>Settlement of Transmission Losses</u>:** Unless Transmission Service is subject to Attachment S of the Tariff, a Transmission Customer taking Network Integration Transmission Service, Firm or Non-Firm Point-to-Point Transmission Service shall be responsible for Real Power Losses as provided for in Section 15.7 of the Tariff, this Schedule 10 and the Transmission Provider’s business practices posted on OASIS. A Transmission Customer shall have the option to settle Real Power Losses pursuant to section (a) (Financial Settlement) or section (b) (Physical Delivery) subject to the Transmission Provider’s business practices posted on OASIS.

(a) **Financial Settlement**.

(i) **Charges for Transmission Losses**. For each hour where the Transmission Provider provides loss service, the Transmission Customer shall compensate the Transmission Provider at a rate equal to the average hourly LAP price for the PACE and PACW BAAs, as established by the MO under Section 29.11(b)(3)(C) of the MO Tariff, multiplied by the energy for such hour based on a Transmission Customer's metered load actual amounts (for a Transmission Customer taking Network Integration Transmission Service) or actual amounts of power scheduled to be delivered at Point(s) of Delivery (for a Transmission Customer taking Point-to-Point Transmission Service).

A spreadsheet showing the average LAP prices for each hour of the previous month shall be accessible through the Transmission Provider's OASIS.

(b) **Physical Delivery**. Transmission Customers opting for physical delivery shall schedule losses to the Transmission Provider concurrently with transmission schedules. The Transmission Provider shall deliver to the Point(s) of Delivery the amount of power received from a Transmission Customer at Point(s) of Receipt, reduced for losses from the Point(s) of Receipt to the Point(s) of Delivery. The amount delivered to the Point(s) of Delivery shall be determined to be the amount of power received from a Transmission Customer at the Point(s) of Receipt divided by (1 + Real Power Losses rate) and the amount of losses shall be determined to be the amount of power received from a Transmission Customer at Point(s) of Receipt multiplied by (1 - 1/ (1 + Real Power Losses rate). Any hourly differences between the amounts of power scheduled to be delivered at Point(s) of Delivery (plus applicable Real Power Losses) and the actual amounts of energy received at Point(s) of Receipt shall be accounted for as Energy Imbalance subject to charges pursuant to Schedule 4.

**Real Power Losses Updates**: PacifiCorp shall update Schedule 10 factors for Real Power Losses following completion of every two Energy Gateway Project segments (or substantially similar transmission segments or combination thereof) which have been placed into commercial operation for at least one full calendar year. PacifiCorp's update to the Transmission System loss factor shall be filed on or before April 1 following the full calendar year of commercial operation for the second of every two Energy Gateway Project segments (or substantially similar transmission segments or combination thereof) with a request to the Commission that the updated Transmission System loss factor be made effective June 1 of the calendar year in which the filing is made. Such filing shall be based on the most recent FERC Form No. 1 data for the prior calendar year. The update calculation shall be consistent with the methodology agreed upon in ER11-3643 and shall be based on annual sources and uses of energy from FERC Form No. 1, p. 401a, with adjustments to remove any energy source and corresponding energy use (i) which is not scheduled or otherwise transacted using PacifiCorp's transmission system, (ii) which is duplicative of, in part or whole, another energy source or energy use already represented in the data on FERC Form No. 1, p. 401a, and (iii) which represent financially settled losses (i.e., no actual physical losses).

# SCHEDULE 10

## Real Power Losses

**For Service Over the Transmission Provider's Transmission System**:

Any use of the Transmission Provider's Transmission System, excluding EIM participation, shall be assessed Real Power Losses in the following amounts:

| | |
|---|---|
| Use of any portion of the Transmission System at a voltage of 46kV or greater | ~~3.75%~~ 4.30% |
| Use of any portion of the Distribution System at a voltage 34.5 kV or less | 4.14% |
| Use of a combination of the Transmission System and the Distribution System | ~~7.89%~~ 8.44% |

**For Service on the PacifiCorp COI Segment**:

Real Power Losses shall be calculated in accordance with Attachment S for Transmission Service on the PacifiCorp COI Segment.

**Service Over PacifiCorp Facilities in Other Control Areas**: For Transmission Service provided over PacifiCorp lines located in another control area, any Real Power Losses assessed to PacifiCorp by the adjacent control area associated with the Customer's service will be passed through to the Transmission Customer. In instances where service is provided by PacifiCorp and an adjacent control area, any Real Power Losses assessed by the adjacent control area to PacifiCorp will be passed through to the Transmission Customer in addition to PacifiCorp Real Power Losses identified in this section.

**Settlement of Transmission Losses**: Unless Transmission Service is subject to Attachment S of the Tariff, a Transmission Customer taking Network Integration Transmission Service, Firm or Non-Firm Point-to-Point Transmission Service shall be responsible for Real Power Losses as provided for in Section 15.7 of the Tariff, this Schedule 10 and the Transmission Provider's business practices posted on OASIS. A Transmission Customer shall have the option to settle Real Power Losses pursuant to section (a) (Financial Settlement) or section (b) (Physical Delivery) subject to the Transmission Provider's business practices posted on OASIS.

(a) **Financial Settlement**.

(i) **Charges for Transmission Losses**. For each hour where the Transmission Provider provides loss service, the Transmission Customer shall compensate the Transmission Provider at a rate equal to the average hourly LAP price for the PACE and PACW BAAs, as established by the MO under Section 29.11(b)(3)(C) of the MO Tariff, multiplied by the energy for such hour based on a Transmission Customer's metered load actual amounts (for a Transmission Customer taking Network Integration Transmission Service) or actual amounts of power scheduled to be delivered at Point(s) of Delivery (for a Transmission Customer taking Point-to-Point Transmission Service).

A spreadsheet showing the average LAP prices for each hour of the previous month shall be accessible through the Transmission Provider's OASIS.

(b) **Physical Delivery**. Transmission Customers opting for physical delivery shall schedule losses to the Transmission Provider concurrently with transmission schedules. The Transmission Provider shall deliver to the Point(s) of Delivery the amount of power received from a Transmission Customer at Point(s) of Receipt, reduced for losses from the Point(s) of Receipt to the Point(s) of Delivery. The amount delivered to the Point(s) of Delivery shall be determined to be the amount of power received from a Transmission Customer at the Point(s) of Receipt divided by (1 + Real Power Losses rate) and the amount of losses shall be determined to be the amount of power received from a Transmission Customer at Point(s) of Receipt multiplied by (1 - 1/ (1 + Real Power Losses rate). Any hourly differences between the amounts of power scheduled to be delivered at Point(s) of Delivery (plus applicable Real Power Losses) and the actual amounts of energy received at Point(s) of Receipt shall be accounted for as Energy Imbalance subject to charges pursuant to Schedule 4.

**Real Power Losses Updates**: PacifiCorp shall update Schedule 10 factors for Real Power Losses following completion of every two Energy Gateway Project segments (or substantially similar transmission segments or combination thereof) which have been placed into commercial operation for at least one full calendar year. PacifiCorp's update to the Transmission System loss factor shall be filed on or before April 1 following the full calendar year of commercial operation for the second of every two Energy Gateway Project segments (or substantially similar transmission segments or combination thereof) with a request to the Commission that the updated Transmission System loss factor be made effective June 1 of the calendar year in which the filing is made. Such filing shall be based on the most recent FERC Form No. 1 data for the prior calendar year. The update calculation shall be consistent with the methodology agreed upon in ER11-3643 and shall be based on annual sources and uses of energy from FERC Form No. 1, p. 401a, with adjustments to remove any energy source and corresponding energy use (i) which is not scheduled or otherwise transacted using PacifiCorp’s transmission system, (ii) which is duplicative of, in part or whole, another energy source or energy use already represented in the data on FERC Form No. 1, p. 401a, and (iii) which represent financially settled losses (i.e., no actual physical losses).

# Enclosure 3

## Loss Factor Calculation

*Amounts in thousands of MWh*

## Input Data from 2021 FERC Form No.1, Page 401a

| SOURCES | | USES | |
|---|---|---|---|
| Net Generation, Ln 9 | 54,592 | Sales to Ultimate Consumers, Ln 22 | 56,274 |
| Purchases, Ln 10 | 14,523 | Requirements Sales for Resale, Ln 23 | 279 |
| | 69,115 | Energy Furnished Without Charge, Ln 25 | - |
| Net Exchanges, Ln 14 | (3,091) | Non-requirements Sales for Resale, Ln 24 | 4,834 |
| | | Energy Used by the Company, Ln 26 | 127 |
| Received, Ln 16 | 17,969 | Total Energy Losses, Ln 27 | 4,336 |
| Delivered, Ln 17 | (17,865) | | |
| Transmission By Others Losses, Ln 19 | (277) | | |
| Total | **65,850** | Total | **65,850** |

## Recalculated and Adjusted Received and Delivered Energy

| REF | Sources | | | Uses | | REF |
|---|---|---|---|---|---|---|
| 1 | Generation, 401a lines 9,10 | | 69,115 | Sales to Ultimate Consumers, 401a line 22 | 56,274 | 18 |
| 2 | Net exchange, 401a line 14 | | (3,091) | Requirements Sales for Resale, 401a line 23 | 279 | 19 |
| 3 | Transmission by Others Losses, 401a line 19 | | (277) | | | |
| | | | 65,747 | | | |
| 4 | Reconciliation of Transmission Received (401a line 16): | | | On-system non-requirements sales for resale subject to losses | 2,091 | 20 |
| 5 | Pt-to-Pt transmission received - losses ***financially*** settled | Att. A | 4,857 | | | |
| 6 | Network transmission received - losses ***financially*** settled | Att. B | 3,142 | | | |
| 7 | WAPA RS 262 delivered | Att. C | 1,639 | Company sales, 401a line 26 | 127 | 21 |
| 8 | WAPA RS 263 delivered | Att. C | 47 | | | |
| 9 | WAPA losses received | Att. C | 108 | | | |
| 10 | Black Hills transmission received - losses ***financially*** settled | Att. D | 404 | | | |
| 11 | Transmission received - losses p***hysically*** settled | Att. D | 207 | | | |
| 12 | Transmission received -- supplied losses - network customers | Att. C | 7,566 | | | |
| 13 | Total Transmission Received: | | 17,969 | Transmission delivered without losses | 17,276 | 22 |
| 14 | **Gross Received** | | **83,715** | | | |
| 15 | Less third-party sales on-system (reported in Energy Received (duplicate transactions)) | | (126) | | | |
| 16 | Less off-system sales/purchases w/o losses | Att. F | (2,338) | | | |
| 17 | **Net on-system received** | | **81,251** | **Total delivered with on-system losses** | **76,047** | 23 |
| | | | | Total system delivered loss rate including off-system | 6.8% | 24 |

| | | REF |
|---|---|---|
| **Total losses** (Sources-Uses) | **5,204** | 25 |
| Distribution losses / Fixed 4.14% Loss Rate (see page 2) | 1,855 | 26 |
| **Transmission losses** (total losses - distribution losses) | 3,349 | 27 |
| **Transmission deliveries** = Total delivered (Uses) + Distribution losses = | 77,902 | 28 |
| **Transmission loss rate @ delivery =** | **4.30%** | 29 |

*Amounts in thousands of MWh*

## Transmission and Distribution Losses Adjustments and Allocation

| REF | | | | | Current Tran Loss Factor 3.75% | | Distribution Loss Factor 4.14% | 2021 Distribution Loss Study |
|---|---|---|---|---|---|---|---|---|
| REF | **Schedule 10 loss factor (prior to update)** | | | FERC # w/ Current Loss Factor | Trans Loss embedded in current #s | Adjusted to remove current Loss Factor (total delivered) | Retail Load w/ Dist. Loss | Dist. Loss |
| | | | | A | C =A-B | B | | |
| 30 | TRANSMISSION: Sales to ultimate consumers transmission (including interdepartmental sales) | | | 13,455 | | 13,455 | 13,455 | |
| 31 | DISTRIBUTION: Sales to ultimate consumers distribution (including interdepartmental sales) | | | 42,819 | | 42,819 | 44,668 | 1,849 |
| 32 | Requirements sales for resale | | | 279 | | 279 | | |
| | Adjustments: | | | | | | | |
| 33 | Non-requirements sales for resale, 401a line 24 | | 4,834 | | | | | |
| | Adjustments to remove financial transactions, duplicate transactions and off-system activity: | | | | | | | |
| 34 | Less losses included paid by Black Hills | | (12) | | | | | |
| 35 | Less Pt-to-Pt, network, and OS losses - financially settled | Att. E | (267) | | | | | |
| 36 | Off system sales/purchases w/o losses | Att. F | (2,338) | | | | | |
| 37 | Third party sales on-system (reported in Energy Received (duplicate transactions)) | | (126) | | | | | |
| 38 | Total on-system non-requirements sales for resale subject to losses | | | 2,091 | | 2,091 | | |
| 39 | Energy used by the company (electric dept only, excluding station use, 401a line 26) | | | 127 | | 127 | 133 | 6 |
| | Transmission received/delivered (adjusted 401a lines 16 & 17): | | | | | | | |
| 40 | Transmission received - losses ***financially*** settled | Att. A, B | | *7,998* | *289* | *7,709* | | |
| 41 | WAPA adjustments (losses and RS 262 & 263 adj.) | Att. C | | *1,793* | *108* | *1,685* | | |
| 42 | Transmission pt-to-pt Black Hills - losses ***financially*** settled | Att. D | | *404* | *14* | *390* | | |
| 43 | Transmission other - losses ***physically*** settled | Att. D | | *207* | *8* | *199* | | |
| 44 | Transmission received - supplied losses | Att. C | | *7,566* | *273* | *7,293* | | |
| 45 | Total Transmission: | | | 17,969 | 692 | 17,276 | | |
| 46 | **Total** | | | **76,740** | **692** | **76,047** | **44,801** | **1,855** |

**FF1 2021 328 MWH RECEIVED/DELIVERED**
**TRANSMISSION MWH FINANCIAL SETTLEMENT of LOSSES**

| Page | Line No. | Payment By (Company of Public Authority) (Footnote Affiliation) (a) | Statistical Classification (d) | FERC Rate Schedule of Tariff Number (e) | MWh |
|---|---|---|---|---|---|
| 328 | Line 2 | Airport Solar LLC | LFP | SA 965 | 106,103 |
| 328 | Line 3 | Airport Solar LLC | AD | SA 965 | 4,723 |
| 328 | Line 4 | Arizona Electric Power Cooperative, Inc. | SFP | SA 1010 | 1,160 |
| 328 | Line 5 | Avangrid Renewables, LLC | NF | SA 121 | 181,844 |
| 328 | Line 6 | Avangrid Renewables, LLC | AD | SA 121 | 18,634 |
| 328 | Line 7 | Avangrid Renewables, LLC | SFP | SA 122 | 56,182 |
| 328 | Line 8 | Avangrid Renewables, LLC | AD | SA 122 | 3,572 |
| 328 | Line 11 | Avangrid Renewables, LLC | LFP | SA 895 | 63,784 |
| 328 | Line 12 | Avangrid Renewables, LLC | AD | SA 895 | 7,222 |
| 328 | Line 18 | Basin Electric Power Cooperative, Inc. | NF | SA 607 | 33,997 |
| 328 | Line 19 | Basin Electric Power Cooperative, Inc. | AD | SA 607 | 2,297 |
| 328 | Line 20 | Basin Electric Power Cooperative, Inc. | SFP | SA 606 | 883 |
| 328 | Line 21 | Basin Electric Power Cooperative, Inc. | AD | SA 606 | 1,507 |
| 328.1 | Line 29 | Brookfield Renewable Trading and Marketing LP | NF | SA 941 | 21,943 |
| 328.1 | Line 30 | Brookfield Renewable Trading and Marketing LP | AD | SA 941 | 3,696 |
| 328.1 | Line 31 | Brookfield Renewable Trading and Marketing LP | SFP | SA 940 | 12,138 |
| 328.2 | Line 2 | Clatskanie People's Utility District | LFP | SA 899 | 75,233 |
| 328.2 | Line 3 | Clatskanie People's Utility District | AD | SA 899 | 6,976 |
| 328.2 | Line 7 | CP Energy Marketing (US) Inc. | NF | SA 968 | 40 |
| 328.2 | Line 10 | Deseret Generation and Transmission Co-operative | NF | SA 156 | 5,636 |
| 328.2 | Line 11 | Deseret Generation and Transmission Co-operative | SFP | SA 159 | 543 |
| 328.2 | Line 12 | Dynasty Power Inc. | NF | SA 1014 | 39,714 |
| 328.2 | Line 13 | Dynasty Power Inc. | SFP | SA 1013 | 19,382 |
| 328.2 | Line 14 | Eagle Energy Partners I LP | NF | SA 569 | 18,157 |
| 328.2 | Line 15 | Eagle Energy Partners I LP | AD | SA 569 | 668 |
| 328.2 | Line 17 | Enel Trading North America, LLC | NF | SA 962 | 716 |
| 328.2 | Line 18 | Energy Keepers, Inc. | NF | SA 814 | 7,375 |
| 328.2 | Line 19 | Energy Keepers, Inc. | SFP | SA 815 | 2,022 |
| 328.2 | Line 21 | Evergreen Biopower LLC | LFP | SA 874 | 50,926 |
| 328.2 | Line 22 | Evergreen Biopower LLC | AD | SA 874 | 4,338 |
| 328.2 | Line 25 | Exelon Generation Company, LLC | NF | SA 759 | 827 |
| 328.2 | Line 26 | Exelon Generation Company, LLC | AD | SA 759 | 154 |
| 328.2 | Line 30 | Falls Creek H.P. Limited Partnership | LFP | SA 868 | 12,252 |
| 328.2 | Line 31 | Falls Creek H.P. Limited Partnership | AD | SA 868 | 2,300 |
| 328.2 | Line 32 | Garrett Solar LLC | LFP | SA 966 | 25,483 |
| 328.2 | Line 33 | Garrett Solar LLC | AD | SA 966 | 1,137 |
| 328.2 | Line 34 | Guzman Energy LLC | NF | SA 786 | 101,906 |
| 328.3 | Line 1 | Guzman Energy LLC | AD | SA 786 | 2,121 |
| 328.3 | Line 2 | Guzman Energy LLC | SFP | SA 785 | 24,144 |
| 328.3 | Line 3 | Idaho Power Company | LFP | SA 212 | 35,785 |
| 328.3 | Line 5 | Idaho Power Company | SFP | SA 726 | 585 |
| 328.3 | Line 6 | Idaho Power Company | NF | SA 725 | 141,090 |
| 328.3 | Line 7 | Imperial Irrigation District | NF | SA 1006 | 7,546 |
| 328.3 | Line 8 | Macquarie Energy LLC | NF | SA 755 | 60,049 |
| 328.3 | Line 9 | Macquarie Energy LLC | AD | SA 755 | 112 |
| 328.3 | Line 10 | Macquarie Energy LLC | SFP | SA 754 | 11,460 |
| 328.3 | Line 11 | MAG Energy Solutions, Inc. | NF | SA 903 | 19 |
| 328.3 | Line 12 | MAG Energy Solutions, Inc. | SFP | SA 902 | 105 |
| 328.3 | Line 13 | Mercuria Energy America LLC | NF | SA 998 | 164,142 |
| 328.3 | Line 14 | Mercuria Energy America LLC | SFP | SA 997 | 134,065 |
| 328.3 | Line 17 | Morgan Stanley Capital Group, Inc. | NF | SA 157 | 429,674 |
| 328.3 | Line 18 | Morgan Stanley Capital Group, Inc. | AD | SA 157 | 557 |
| 328.3 | Line 19 | Morgan Stanley Capital Group, Inc. | SFP | SA 160 | 18,701 |
| 328.3 | Line 22 | Nevada Power Company | NF | SA 455 | 3,532 |
| 328.3 | Line 23 | Nevada Power Company | SFP | SA 454 | 13,918 |
| 328.3 | Line 24 | NextEra Energy Resources, LLC | LFP | SA 733 | 402,870 |
| 328.3 | Line 25 | NextEra Energy Resources, LLC | AD | SA 733 | 22,265 |
| 328.3 | Line 29 | Pacific Gas & Electric Company | NF | SA 338 | 2,544 |
| 328.3 | Line 30 | Portland General Electric Company | NF | SA 8 | 13,464 |
| 328.3 | Line 31 | Portland General Electric Company | SFP | SA 248 | 8,921 |
| 328.3 | Line 32 | Powerex Corporation | LFP | SA 169 | 499,047 |
| 328.3 | Line 33 | Powerex Corporation | AD | SA 169 | 48,826 |
| 328.4 | Line 14 | Powerex Corporation | NF | SA 47 | 299,468 |
| 328.4 | Line 15 | Powerex Corporation | AD | SA 47 | 3,445 |
| 328.4 | Line 16 | Powerex Corporation | SFP | SA 151 | 197,766 |

| Page | Line No. | Payment By (Company of Public Authority) (Footnote Affiliation) (a) | Statistical Classification (d) | FERC Rate Schedule of Tariff Number (e) | MWh |
|---|---|---|---|---|---|
| 328.4 | Line 19 | Rainbow Energy Marketing Corporation | NF | SA 316 | 41,143 |
| 328.4 | Line 20 | Rainbow Energy Marketing Corporation | AD | SA 316 | 2,796 |
| 328.4 | Line 23 | Sacramento Municipal Utility District | LFP | SA 863 | 113,587 |
| 328.4 | Line 24 | Sacramento Municipal Utility District | AD | SA 863 | 11,305 |
| 328.4 | Line 25 | Salt River Project Agricultural Improvement and Power District | LFP | SA 809 | 133,707 |
| 328.4 | Line 26 | Salt River Project Agricultural Improvement and Power District | AD | SA 809 | 9,062 |
| 328.4 | Line 27 | Salt River Project Agricultural Improvement and Power District | SFP | SA 556 | 325 |
| 328.4 | Line 28 | Shell Energy North America (US), L.P. | LFP | SA 791 | 30,548 |
| 328.4 | Line 29 | Shell Energy North America (US), L.P. | AD | SA 791 | 2,563 |
| 328.4 | Line 30 | Shell Energy North America (US), L.P. | NF | SA 23 | 492,667 |
| 328.4 | Line 31 | Shell Energy North America (US), L.P. | AD | SA 23 | 20,339 |
| 328.4 | Line 32 | Shell Energy North America (US), L.P. | SFP | SA 162 | 17,031 |
| 328.4 | Line 33 | Shell Energy North America (US), L.P. | AD | SA 162 | 404 |
| 328.5 | Line 2 | Southern California Edison Company | NF | SA 642 | 274,883 |
| 328.5 | Line 3 | Southern California Edison Company | AD | SA 642 | 19,848 |
| 328.5 | Line 6 | Southern California Public Power Authority | NF | SA 629 | 38 |
| 328.5 | Line 7 | State of South Dakota | LFP | SA 779 | 17,784 |
| 328.5 | Line 8 | State of South Dakota | AD | SA 779 | 1,671 |
| 328.5 | Line 9 | TEC Energy Inc. | NF | SA 1001 | 276 |
| 328.5 | Line 10 | Tenaska Power Services Co. | NF | SA 125 | 30,914 |
| 328.5 | Line 11 | Tenaska Power Services Co. | AD | SA 125 | 6,546 |
| 328.5 | Line 12 | Tenaska Power Services Co. | SFP | SA 126 | 104,264 |
| 328.5 | Line 13 | The Energy Authority, Inc. | NF | SA 310 | 55,133 |
| 328.5 | Line 14 | The Energy Authority, Inc. | AD | SA 310 | 338 |
| 328.5 | Line 15 | The Energy Authority, Inc. | SFP | SA 311 | 1,560 |
| 328.5 | Line 17 | Thermo No. 1 BE-01, LLC | LFP | SA 568 | 48,513 |
| 328.5 | Line 18 | Thermo No. 1 BE-01, LLC | AD | SA 568 | 5,981 |
| 328.5 | Line 19 | TransAlta Energy Marketing (U.S.) Inc. | NF | SA 127 | 68,832 |
| 328.5 | Line 20 | TransAlta Energy Marketing (U.S.) Inc. | AD | SA 127 | 3,318 |
| 328.5 | Line 21 | TransAlta Energy Marketing (U.S.) Inc. | SFP | SA 128 | 5,186 |
| 328.5 | Line 22 | TransAlta Energy Marketing (U.S.) Inc. | AD | SA 128 | 20 |
| 328.5 | Line 25 | Tri-State Generation and Transmission Association, Inc | NF | SA 33 | 12 |
| 328.5 | Line 26 | Uniper Global Commodoties | NF | SA 992 | 150 |
| 328.6 | Line 3 | Utah Municipal Power Agency | NF | SA 20 | 39,466 |
| 328.6 | Line 5 | Vitol, Inc | NF | SA 1027 | 49 |
| 328.6 | Line 15 | Western Area Power Administration Colorado River Storage Project | NF | SA 132 | 67 |
| 328.6 | Line 16 | Western Area Power Administration Colorado Missouri | NF | SA 724 | 1,881 |
| **Total** | | | | | **5,003,898** |
| Accrual Adjustment | | | | | (147,170) |
| Total point-to-point schedules subject to losses (as reported on FERC Form No. 1, page 329) | | | | | **4,856,728** |
| | | | | REF | 5 |

**FF1 2021 328 MWH RECEIVED/DELIVERED**
**TRANSMISSION MWH FINANCIAL SETTLEMENT of LOSSES - Network customers**

| Page | Line No. | Payment By (Company of Public Authority) (Footnote Affiliation) (a) | Statistical Classification (d) | FERC Rate Schedule of Tariff Number (e) | MWh |
|---|---|---|---|---|---|
| 328 | Line 1 | 3 Phase Renewables, LLC | AD | SA 876 | 129 |
| 328 | Line 13 | Avangrid Renewables, LLC | FNO | SA 742 | 273,987 |
| 328 | Line 14 | Avangrid Renewables, LLC | AD | SA 742 | 25,354 |
| 328 | Line 16 | Basin Electric Power Cooperative, Inc. | FNO | SA 505 | 70,327 |
| 328 | Line 17 | Basin Electric Power Cooperative, Inc. | AD | SA 505 | 6,447 |
| 328.1 | Line 4 | Bonneville Power Administration | FNO | SA 229 | 22,582 |
| 328.1 | Line 5 | Bonneville Power Administration | AD | SA 229 | 2,093 |
| 328.1 | Line 6 | Bonneville Power Administration | FNO | SA 539 | 5,568 |
| 328.1 | Line 7 | Bonneville Power Administration | AD | SA 539 | 28 |
| 328.1 | Line 8 | Bonneville Power Administration | FNO | SA 538 | 1,236 |
| 328.1 | Line 9 | Bonneville Power Administration | AD | SA 538 | 173 |
| 328.1 | Line 14 | Bonneville Power Administration | FNO | SA 328 | 37,817 |
| 328.1 | Line 15 | Bonneville Power Administration | AD | SA 328 | 3,554 |
| 328.1 | Line 16 | Bonneville Power Administration | FNO | SA 827 | 673 |
| 328.1 | Line 17 | Bonneville Power Administration | AD | SA 827 | 87 |
| 328.1 | Line 18 | Bonneville Power Administration | FNO | SA 746 | 1,365,660 |
| 328.1 | Line 19 | Bonneville Power Administration | AD | SA 746 | 182,830 |
| 328.1 | Line 21 | Bonneville Power Administration | FNO | SA 747 | 637,986 |
| 328.1 | Line 22 | Bonneville Power Administration | AD | SA 747 | 69,465 |
| 328.1 | Line 23 | Bonneville Power Administration | FNO | SA 735 | 119,863 |
| 328.1 | Line 24 | Bonneville Power Administration | AD | SA 735 | 15,248 |
| 328.1 | Line 25 | Bonneville Power Administration | FNO | SA 865 | 483 |
| 328.1 | Line 26 | Bonneville Power Administration | AD | SA 865 | 55 |
| 328.1 | Line 27 | Bonneville Power Administration | FNO | SA 975 | 4,171 |
| 328.1 | Line 32 | Calpine Energy Solutions, LLC | FNO | SA 299 | 115,541 |
| 328.1 | Line 33 | Calpine Energy Solutions, LLC | AD | SA 299 | 8,167 |
| 328.2 | Line 23 | Exelon Generation Company, LLC | FNO | SA 943 | 9,567 |
| 328.2 | Line 24 | Exelon Generation Company, LLC | AD | SA 943 | 608 |
| 328.3 | Line 20 | Navajo Tribal Utility Authority | FNO | SA 894 | 13,829 |
| 328.3 | Line 21 | Navajo Tribal Utility Authority | AD | SA 894 | 1,717 |
| 328.5 | Line 23 | Tri-State Generation and Transmission Association, Inc | FNO | SA 628 | 118,049 |
| 328.5 | Line 24 | Tri-State Generation and Transmission Association, Inc | AD | SA 628 | 13,011 |
| 328.5 | Line 27 | United States Department of Interior, Bureau of Reclamation | FNO | SA 506 | 2,466 |
| 328.5 | Line 28 | United States Department of Interior, Bureau of Reclamation | AD | SA 506 | 5 |
| 328.6 | Line 13 | Western Area Power Administration | FNO | SA 175 | 11,623 |
| 328.6 | Line 14 | Western Area Power Administration | AD | SA 175 | 4 |
| **Total** | | | | | **3,140,403** |
| Accrual Adjustment | | | | | 1,227 |
| Total | | | | | **3,141,630** |
| | | | | **REF** | **6** |

**Western Area Power Administration Total Received/Delivered & Total Received Per FF1 2018 328 and 401a Summary**
**2021**
*Amounts in MWh*

| Western Rec./Del. Reconciliation | RS 262 | RS 263 | Subtotal | Energy Return (Variation) | Net | |
|---|---|---|---|---|---|---|
| Energy Received | 1,743,116 | 50,011 | 1,793,127 | - | ***1,793,127*** | |
| Losses | (104,589) | (3,253) | (107,842) | | (107,842) | 9 |
| Energy Delivered | 1,638,527 | 46,758 | 1,685,285 | - | ***1,685,285*** | |
| | | | | | | |
| Details: | | | | | | |
| Total Received: Reported | | | | | | |
| OS Reported | 1,551,743 | 43,865 | 1,595,608 | - | 1,595,608 | |
| AD Reported | 161,400 | 4,111 | 165,511 | - | 165,511 | |
| Accrual Adjustment (included in total Accrual) | 29,973 | 2,035 | 32,008 | - | 32,008 | |
| Total Received | 1,743,116 | 50,011 | 1,793,127 | - | 1,793,127 | |
| | | | | | | |
| Total Delivered: Reported | | | | | | |
| OS Reported | 1,458,636 | 40,991 | 1,499,627 | | 1,499,627 | |
| AD Reported | 151,716 | 3,863 | 155,579 | | 155,579 | |
| Accrual Adjustment (included in total Accrual) | 28,175 | 1,904 | 30,079 | | 30,079 | |
| Total Delivered | 1,638,527 | 46,758 | 1,685,285 | | 1,685,285 | 7, 8 |

Total Received per 328 and 401a-lines 16/17 as reported

| | Received per 328 | Accrual Received FF1 Pg 328.6 | Total Received Per 401a | |
|---|---|---|---|---|
| Total point-to-point schedules subject to losses - as reported on 328 (financial settlement) | 5,003,898 | (147,170) | 4,856,728 | 5 |
| Total network schedules ***financially*** settled - subst of total report on 328 | 3,140,403 | 1,227 | 3,141,630 | 6 |
| Western RS 262 Received reported on page 328 | 1,713,143 | 29,973 | 1,743,116 | see above |
| Western RS 263 Received reported on page 328 | 47,976 | 2,035 | 50,011 | see above |
| Black Hills (losses paid financially to PacifiCorp Energy) | 409,323 | (5,202) | 404,121 | 10 |
| Physical Losses Received (See Attachment D) | 210,374 | (3,465) | 206,909 | 11 |
| Network/OS/and other rate schedules [1] | 7,323,632 | 242,448 | 7,566,080 | 12 |
| | | | | |
| Total Received per 401a Line 16 | 17,848,749 | 119,846 | 17,968,595 | |

**2021 328 MWH RECEIVED/DELIVERED**
**PT-TO-PT MW PHYSICAL SETTLEMENT AND BLACK HILLS**

| Page | Line No. | Payment By (Company of Public Authority) (Footnote Affiliation) (a) | Statistical Classification (d) | FERC Rate Schedule of Tariff Number (e) | MWh | Black Hills | Physical | Total |
|---|---|---|---|---|---|---|---|---|
| 328 | Line 22 | Black Hills/Colorado Electric Utility Company, L.P. | NF | SA 563 | 1,186 | 1,186 | | 1,186 |
| 328 | Line 23 | Black Hills Corporation | FNO | SA 347 | 274,591 | 274,591 | | 274,591 |
| 328 | Line 24 | Black Hills Corporation | AD | SA 347 | 27,663 | 27,663 | | 27,663 |
| 328 | Line 25 | Black Hills Corporation | LFP | SA 67 | 77,629 | 77,629 | | 77,629 |
| 328 | Line 26 | Black Hills Corporation | AD | SA 67 | 5,202 | 5,202 | | 5,202 |
| 328 | Line 27 | Black Hills Corporation | NF | SA 768 | 5,131 | 5,131 | | 5,131 |
| 328 | Line 29 | Black Hills Corporation | SFP | SA 767 | 16,826 | 16,826 | | 16,826 |
| 328 | Line 30 | Black Hills Power Marketing | NF | SA 43 | 1,045 | 1,045 | | 1,045 |
| 328 | Line 32 | Black Hills Power Marketing | SFP | SA 714 | 50 | 50 | | 50 |
| 328.1 | Line 2 | Bonneville Power Administration | LFP | SA 656 | 186,322 | | 186,322 | 186,322 |
| 328.1 | Line 3 | Bonneville Power Administration | AD | SA 656 | 13,919 | | 13,919 | 13,919 |
| 328.1 | Line 10 | Bonneville Power Administration | LFP | SA 179 | 10,014 | | 10,014 | 10,014 |
| 328.1 | Line 11 | Bonneville Power Administration | AD | SA 179 | 119 | | 119 | 119 |
| **Total** | | | | | **619,697** | **409,323** | **210,374** | **619,697** |
| Accruals | | | | | -8,667 | -5,202 | -3,465 | -8,667 |
| Total Black Hills & Physical Received | | | | | **611,030** | **404,121** | **206,909** | **611,030** |
| | | | | REF | | 10 | 11 | |

**2021 FERC FORM 1 PAGES 310 AND 311**
**SALES FOR RESALE (Account 447)**
**TRANSMISSION AGREEMENTS FINANCIALLY SETTLED**

| Page No. | Line No. | Name of Company or Public Authority [Footnote Affiliations] (a) | Statistical Classifi- cations (b) | Footnote for col (b) | FERC Rate Schedule or Tariff Number (c) | Average Monthly Billing Demand (MW) (d) | Actual Demand: Average Monthly NCP Demand (e) | Actual Demand: Average Monthly CP Demand (f) | Megawatthours Sold (g) | REF |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Nonrequirement Sales | | | | | | | | |
| | 123 | Transmission Loss Sales Revenue | AD | 1 | T-11 | NA | NA | NA | 6 | |
| | 124 | Transmission Loss Sales Revenue | OS | 4 | T-11 | NA | NA | NA | 266,743 | |
| | | Total Pt-to-Pt, Network, and OS Financially Settled | | | | | | | 266,749 | 35 |

**2021 OFF SYSTEM SALES & PURCHASES**

| *Amounts in thousands of MWh* | MWh | REF |
|---|---|---|
| PAC01 Off System Sales (MidC)-purchases | 628 | |
| PAC01 Off System Sales (Cholla, Col, Herm, Wyo, YTP etc) - sales | 0 | |
| PAC01 Off System Sales (Jim Bridger) | - | |
| Craig generation sales [1] | 1,266 | |
| Hayden generation sales [1] | 443 | |
| **Total third-party off system sales/purchases** | **2,338** | **16, 36** |

**MidC filter**

LoadPoint Does Not=CHEHALIS
LCA Does Not=PACW
AssignmentRef=212;213;NOR
ContractMkt Does Not=ALCOA Exchange;No Spill Exch;RR CEA
Path=MIDC/MIDC;MIDC/MIDCRemote
TSSubClass Does Not=FCR_PHYSICAL;SECONDARY
ScheduleType=Energy
TagNotes Does Not=DOPD Settlement
FlowType=Export
LSE Does Not=PAC01

**Cholla, Colstrip, Hermiston, Wyodak and YTP filter:**

GPE=PAC01 [2]
Scheduletype = Energy
TagNotes does not = Coal Feed; Colstrip Startup
LSE does not = PAC01
LoadPoint does not = NWMTLosses
TSSubClass does not = FCR_PHYSICAL;SECONDARY
Assignment Ref = 201;204;205;207;215;216;217;218;NOR; 230SI;231SI; 235SI; 250SI [3]
FlowType=Export [4]
GeneratorPointDoes Not = PACENNH and PACWNNH [5]

**Jim Bridger filter** [6]

Path=JBSN/JBSN
ScheduleType=Energy
TagTransOwner=BHPM01
GCA=PACW
LSE Does Not=PAC01
TagNotes Does Not=54234800
AssignmentRef=206;NOR

Notes and adjustments to 2010 query :

[1] Off system sales at Craig and Hyden generation bus are not captured in the E-Tag query due to different tagging conventions. Data obtained from company records.
[2] Replaced "Path=....." with "GPE=PAC01" which has the same effect on the filter except there is no need to add a new path to this list whenever there is a new path to add.
[3] Added 230SI (Juniper Wind), 231SI (Goodnoe Hills), 235SI (Chehalis Gen) and 250SI (Hermiston Gen) to this list.
[4] Added "FlowType=Export" to limit the view to Export tags only as opposed to Export AND an Import which would cancel each other when tags are totaled.
[5] Added "GeneratorPointDoes Not = PACENNH and PACWNNH" to exclude non-generator bus transactions.
[6] No off system sales at Jim Bridger generation bus have been identified in 2021.

# Enclosure 4

## Loss Factor Methodology Matrix

# MATRIX IDENTIFIYING INPUTS TO PACIFICORP'S TRANSMISSION SYSTEM LOSS FACTOR CALCULATION

| Item Number[1] | Input | Value (all amounts in thousands of MWh) | Source Material, Calculations, and Assumptions Applied |
|---|---|---|---|
| | **RECALCULATED AND ADJUSTED RECEIVED AND DELIVERED ENERGY: SOURCES** | | |
| **1** | **Generation** | 69,115 | PacifiCorp's 2021 FERC Form No. 1, page 401a, sum of lines 9 (Net Generation) and 10 (Purchases). |
| **2** | **Net exchange** | (3,091) | PacifiCorp's 2021 FERC Form No. 1, page 401a, line 14 (Net Exchanges). |
| **3** | **Transmission by Others Losses** | (277) | PacifiCorp's 2021 FERC Form No. 1, page 401a, line 19 (Transmission by Others Losses). |
| **4** | **Reconciliation of Transmission received (401a line 16)** | - | PacifiCorp's 2021 FERC Form No. 1, page 401a, line 16 (Energy Received): itemization of the total energy sources received. |
| **5** | **Pt-to-Pt transmission received - losses financially settled** | 4,857 | Attachment A of the Loss Factor Calculation identifies the total Point-to-Point Transmission contracts subject to losses financially, as enumerated on PacifiCorp's 2021 FERC Form No. 1, page 329, including an adjustment for accrual differences. |
| **6** | **Network transmission received - losses financially settled** | 3,142 | Attachment B of the Loss Factor Calculation identifies the total Network Transmission contracts subject to losses financially as enumerated on PacifiCorp's 2021 FERC Form No. 1, page 329, including an adjustment for accrual differences. |
| **7** | **WAPA RS 262 delivered** | 1,639 | Attachment C of the Loss Factor Calculation identifies the losses associated with the MWhs delivered pursuant to PacifiCorp's Rate Schedule 262 with Western Area Power Administration ("WAPA"), as included on PacifiCorp's 2021 FERC Form No. 1, pages 328-329, including accrual adjustments. |
| **8** | **WAPA RS 263 delivered** | 47 | Attachment C of the Loss Factor Calculation identifies the losses associated with the MWhs delivered pursuant to PacifiCorp's Rate Schedule 263 with WAPA, as included on PacifiCorp's 2021 FERC Form No. 1, page 328-329, including accrual adjustments. |
| **9** | **WAPA losses Received** | 108 | Attachment C of the Loss Factor Calculation identifies the difference between energy received and delivered pursuant to |

[1] The Item Numbers used in this Appendix are intended to be illustrative only and do not change the Loss Factor Calculation methodology agreed to by the settling parties in Docket No. ER11-3643.

# MATRIX IDENTIFIYING INPUTS TO PACIFICORP'S TRANSMISSION SYSTEM LOSS FACTOR CALCULATION

| Item Number[1] | Input | Value (all amounts in thousands of MWh) | Source Material, Calculations, and Assumptions Applied |
|---|---|---|---|
| | | | PacifiCorp's Rate Schedules 262 and 263 with WAPA, as included on PacifiCorp's 2021 FERC Form No. 1, page 328.5 and FERC Form No.1, line 17 (Energy delivered). |
| **10** | **Black Hills transmission received - losses financially settled** | 404 | Attachment D of the Loss Factor Calculation identifies the losses in MWhs sold to Black Hills Power ("Black Hills") under power purchase agreements with PacifiCorp Energy, as included in PacifiCorp's 2021 FERC Form No. 1, page 329, including an adjustment for accrual differences. |
| **11** | **Transmission received - losses physically settled, other** | 207 | Attachment D of the Loss Factor Calculation identifies the losses derived from Point-to-Point Transmission contracts which settle losses physically (i.e. State of South Dakota), as included in PacifiCorp's 2021 FERC Form No. 1, page 329, including accrual adjustments. |
| **12** | **Transmission received – supplied losses – network customers** | 7,566 | Attachment C of the Loss Factor Calculation identifies the adjusted total energy delivered for network and "other service" ("OS") contracts, which are reported in PacifiCorp's 2021 FERC Form No. 1, page 328 , primarily through imbalance (FERC Account 555), including an adjustment for accrual differences. |
| **13** | **Total Transmission received** | 17,969 | Sum of Items 5 through 12. |
| **14** | **Gross Received** | 83,715 | Sum of Items 1-3 and 13. |
| **15** | **Less third-party sales on-system (reported in Energy Received (duplicate transactions))** | (126) | This adjustment removes duplicate transactions reflected in both net generation and received/delivered energy (sales for resale by PacifiCorp Energy), which are also accounted for as part of wheeling received and delivered. This amount represents specific transactions between third parties and PacifiCorp Energy. Same value as item 37. |
| **16** | **Less off-system sales/purchases without losses** | (2,338) | Attachment F of the Loss Factor Calculation identifies the sales and purchase transactions at generator buses which do not utilize PacifiCorp's transmission system. The data is sourced from PacifiCorp's e-Tag and company records (using the e-Tag query |

# MATRIX IDENTIFIYING INPUTS TO PACIFICORP'S TRANSMISSION SYSTEM LOSS FACTOR CALCULATION

| Item Number[1] | Input | Value (all amounts in thousands of MWh) | Source Material, Calculations, and Assumptions Applied |
|---|---|---|---|
| | | | and descriptions set forth in PacifiCorp's Loss Analysis Methodology). Same value as item 36. |
| **17** | **Net on-system received** | 81,251 | Item 14 less Items 15-16. This value must be compared to net delivered energy to determine total system losses before losses are allocated between transmission and distribution. |
| | **RECALCULATED AND ADJUSTED RECEIVED AND DELIVERED ENERGY: USES** | | |
| **18** | **Sales to ultimate customers** | 56,274 | PacifiCorp's 2021 FERC Form No. 1, page 401a, line 22 (Sales to Ultimate Consumers). |
| **19** | **Requirement sales for Resale** | 279 | PacifiCorp's 2021 FERC Form No. 1, page 401a, line 23 (Requirements Sales for Resale). |
| **20** | **On system non-requirements sales subject to losses** | 2,091 | PacifiCorp's 2021 FERC Form No. 1, page 401a, line 24 (Non-Requirements Sales for Resale), adjusted to remove financial transactions, duplicate transactions and off-system activity detailed in items 33-37. |
| **21** | **Company sales** | 127 | PacifiCorp's 2021 FERC Form No. 1, page 401a, line 26 (Energy Used by the Company). |
| **22** | **Transmission delivered without losses** | 17,276 | This amount is the total contractual amounts of energy received by PacifiCorp (item 13) adjusted to remove the volumes subject to losses by multiplying the total energy received by current transmission loss factor (4.45%). See also the description and value from item 45 column titled "Adjusted to remove current Loss Factor". |
| **23** | **Total delivered with on-system losses** | 76,047 | Sum of Items 18 through 22. Total sales to customers adjusted for sales subject to losses. |
| **24** | **Total system delivered loss rate including off-system** | 6.8% | Item 25 / Item 23 (illustrative only). Loss rate includes both transmission and distribution losses. |
| **25** | **Total Losses** | 5,204 | Item 17 less item 23. |
| **26** | **Distribution losses** | 1,855 | Applies 4.14% distribution loss factor (from PacifiCorp's 2020 Distribution Loss Study) to total distribution losses (see item 46 column titled "Dist. Loss". |

# MATRIX IDENTIFIYING INPUTS TO PACIFICORP'S TRANSMISSION SYSTEM LOSS FACTOR CALCULATION

| Item Number[1] | Input | Value (all amounts in thousands of MWh) | Source Material, Calculations, and Assumptions Applied |
|---|---|---|---|
| **27** | **Remaining losses = transmission losses** | 3,349 | Item 25 less Item 26. |
| **28** | **Transmission deliveries = total deliveries + distribution loss** | 77,902 | Sum of Items 23 and 26. |
| **29** | **Transmission loss rate @ delivery** | **4.30%** | Resulting transmission loss factor is derived from dividing Item 27 by Item 28. |
| | **TRANSMISSION AND DISTRIBUTION LOSSES ADJUSTMENTS AND ALLOCATION** | | |
| **30** | **Transmission: Sales to ultimate consumers – transmission (including interdepartmental sales)** | 13,455 | Items 30 & 31 represent a split of total retail sales as stated on PacifiCorp's 2021 FERC Form No. 1, page 401a, line 22 (Sales to Ultimate Consumers) into the volumes delivered to the customers through transmission and distribution lines. The transmission/distribution split is determined based on 1) rate schedules with specific voltage types, such as residential and transmission service rate schedules, and 2) delivery voltage codes by customer in the company's billing system for rate schedules for which multiple voltage levels are applicable. The distribution volumes are then adjusted for losses which are determined by multiplying the retail distribution by the distribution loss factor (4.14%). |
| **31** | **Distribution: Sales to ultimate consumers – distribution (including interdepartmental sales)** | 42,819 | |
| **32** | **Requirements sales for resale** | 279 | PacifiCorp's 2021 FERC Form No. 1, page 401a, line 23 (Requirements Sales for Resale). |
| **33** | **Non-requirements sales for resale** | 4,834 | PacifiCorp's 2021 FERC Form No. 1, page 401a, line 24 (Non-Requirements Sales for Resale). |
| **Adjustments to remove financial transactions, duplicate transactions, and off-system activity (items 34-37)** | | | |
| **34** | **Less losses included paid by Black Hills** | (12) | Attachment E of Loss Calculation identifies energy, including losses, sold to Black Hills under a long-term firm contract and included in PacifiCorp's 2021 FERC Form No. 1, page 401a, line 24 (Non-Requirements Sales for Resale), as stated in Account 447 details (FERC Form No. 1, page 311.1). This adjustment is derived from the FERC Form No. 1 data by applying the current transmission loss factor (3.75%). |

# MATRIX IDENTIFIYING INPUTS TO PACIFICORP'S TRANSMISSION SYSTEM LOSS FACTOR CALCULATION

| Item Number[1] | Input | Value (all amounts in thousands of MWh) | Source Material, Calculations, and Assumptions Applied |
|---|---|---|---|
| **35** | **Less Pt-to-Pt and network losses - financially settled** | (267) | Adjustment for Point-to-Point Transmission, Network, and other services for which the losses are settled financially in order to remove double counting of losses from the generation activity. Attachment E of Loss Calculation identifies these contracts as stated in FERC Form No.1, details for Account 447 (pages 311.1-311.11). |
| **36** | **Off-system sales/purchases without losses** | (2,338) | Same value and description as item 16. |
| **37** | **Third party sales on-system (reported in energy received (duplicated transactions)** | (126) | Same value and description as item 15. |
| **38** | **Total on-system non-requirements sales for resale subject to losses** | 2,090 | Same value and description as item 20. |
| **39** | **Energy used by the company (electric department only, excluding station use)** | 127 | PacifiCorp's 2021 FERC Form No. 1, page 401a, line 26 (Energy Used by the Company). |
| **Transmission received/delivered (adjusted 401a, lines 16&17 (items 40-45)** | | | |
| **40** | **Transmission received - losses financially settled** | 7,998 | Attachments A and B of the Loss Factor Calculation identify total Point-to-Point Transmission, Network, and Other services subject to losses settled financially, as enumerated on PacifiCorp's 2021 FERC Form No. 1, page 329 and adjusted for current transmission loss factor. |
| **41** | **WAPA RS 262 & 263** | 1,793 | Sum of items 7-9 and adjusted value for current transmission loss factor. |
| **42** | **Point-to-Point Transmission to Black Hills** | 404 | Same value and description as item 10 and adjusted value for current transmission loss factor. |
| **43** | **Transmission other – losses physically settled** | 207 | Same value and description as item 11 and adjusted value for current transmission loss factor. |
| **44** | **Transmission recieved - supplied losses** | 7,566 | Same value and description as item 12 and adjusted value for current transmission loss factor. |
| **45** | **Total Transmission** | 17,969 | Sum of Items 40 through 44 and adjusted value for current transmission loss factor. |

# MATRIX IDENTIFIYING INPUTS TO PACIFICORP'S TRANSMISSION SYSTEM LOSS FACTOR CALCULATION

| Item Number[1] | Input | Value (all amounts in thousands of MWh) | Source Material, Calculations, and Assumptions Applied |
|---|---|---|---|
| **46** | **Total** | 76,740 | Sum of items 30-32 plus sum of items 38-39 plus item 45 and adjusted for current transmission and distribution loss factor. |

# Enclosure 5

# E-Tag Adjustments

## E-Tag Filter Adjustments:

PacifiCorp performed a similar E-Tag query rule to the one that was established in the Docket No. ER11-3643 Settlement Agreement. The Docket No. ER11-3643 “2010 E-Tag query” consisted of the following parameters:

- Path=CHOLLA500/CHOLLA500;Colstrip/Colstrip;HERMISTONGEN/HERMIS
- TONGEN;JEFF/JEFF;UINTA/UINTA;WYODAK/WYODAK;YTP
- Scheduletype = Energy
- TagTransOwner = PAC01
- TagNotes does not = Coal Feed; Colstrip Startup
- LSE does not = PAC01
- LoadPoint does not = NWMTLosses
- TSSubClass does not = FCR_PHYSICAL;SECONDARY
- Assignment Ref = 201;204;205;207;215;216;217;218;NOR

PacifiCorp made minor adjustments to the 2010 E-Tag query to remove transactions which occurred at a generator bus that did not utilize PacifiCorp’s transmission. The E-Tag adjustments are listed in Appendix F and are explained in more detail below.

1. Off system sales at Craig and Hyden generation bus are not captured in the E-Tag query because these resources are not located in our control area. Thus, any generator bus sale for these resources will not use any PacifiCorp transmission and we will not have these transactions in our E-Tagging system.
2. Replaced the path name with “GPE=PAC01”. This parameter identifies all PacifiCorp managed generation that was used for off system sales. PacifiCorp uses this parameter to tag resources when they are used for off system sales.
3. Added Juniper Hills, Goodnoe Hills, Chehalis, and Hermiston to the assignment ref parameter. The addition of the generator reservation is necessary when using GPE=PAC01 instead of the specific path parameter. Juniper Hills, Goodnoe Hills, Chehalis, and Hermiston resources could be used for off system sales. When a resource is used for off system sales the resource will be undesignated and will not use PacifiCorp transmission.
4. Added a flow type parameter of export because the PacifiCorp E-Tagging system would cancel tags out if an export and import parameter were used. This allows PacifiCorp to include exports only when determining transactions that occurred to support off system sales.
5. Added “GeneratorPointDoes Not = PACENNH or PACWNNH” to exclude any transactions at a non-generator bus. This parameter is necessary when using a non-path specific parameter.
6. A path specific filter was used for Jim Bridger.