



Pacific Power |
Rocky Mountain Power
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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 Year⁴ 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”).

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. Completion of Vantage to Pomona Heights transmission segment and the Aeolus to Bridger transmission segment.

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. Timing of filing.

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

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 it is 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 led 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:

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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.

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

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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 <i>minus</i> 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 Municipal 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	Garrett 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.	Jan	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	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	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	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	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	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	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	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	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 Muncpal 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	Garrett 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	16,189	16,189	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	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	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	109,066	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	5,218	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)	\$ (1,786)	\$ (1,770)	\$ (1,475)	\$ (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	PacificCorp: 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 Municipal 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	Garrett 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	16,275	16,275	16,275	16,275	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	PacificCorp: 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	16,109	15,878	19,373	158,878
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

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	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%

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 $(1 + \text{Real Power Losses rate})$ 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 $(1 - 1 / (1 + \text{Real Power Losses rate}))$. 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 $(1 + \text{Real Power Losses rate})$ 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 $(1 - 1 / (1 + \text{Real Power Losses rate}))$. 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

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
	<u>69,115</u>	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	<u>65,850</u>	Total	<u>65,850</u>

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	18
2	Net exchange, 401a line 14	(3,091)	Requirements Sales for Resale, 401a line 23	19
3	Transmission by Others Losses, 401a line 19	(277)		
		<u>65,747</u>		
4	Reconciliation of Transmission Received (401a line 16):		On-system non-requirements sales for resale subject to losses	20
5	Pt-to-Pt transmission received - losses <i>financially</i> settled Att. A	4,857		
6	Network transmission received - losses <i>financially</i> settled Att. B	3,142		
7	WAPA RS 262 delivered Att. C	1,639	Company sales, 401a line 26	21
8	WAPA RS 263 delivered Att. C	47		
9	WAPA losses received Att. C	108		
10	Black Hills transmission received - losses <i>financially</i> settled Att. D	404		
11	Transmission received - losses <i>physically</i> 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	22
14	Gross Received	<u>83,715</u>		
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	<u>81,251</u>	Total delivered with on-system losses	<u>76,047</u> 23
			Total system delivered loss rate including off-system	6.8% 24
		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

		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 <i>financially</i> 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 <i>financially</i> settled	Att. D 404	14	390			
43	Transmission other - losses <i>physically</i> 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 Commodities	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					<u>(147,170)</u>
Total point-to-point schedules subject to losses (as reported on FERC Form No. 1, page 329)					<u>4,856,728</u>
					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)
Energy Delivered	1,638,527	46,758	1,685,285	-	1,685,285
Details:					
Total <u>Received</u> : 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 <u>Delivered</u> : 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

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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 <u>Received</u> reported on page 328	1,713,143	29,973	1,743,116	see above
Western RS 263 <u>Received</u> 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 Classifications (b)	Footnote for col (b)	FERC Rate Schedule or Tariff Number (c)	Average Monthly Billing Demand (MW) (d)	Actual Demand		Megawatthours Sold (g)	
							Average Monthly NCP Demand (e)	Average Monthly CP Demand (f)		
		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	

REF

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2021 OFF SYSTEM SALES & PURCHASES

<i>Amounts in thousands of MWh</i>	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 IDENTIFYING 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 IDENTIFYING 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 IDENTIFYING 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 IDENTIFYING 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 IDENTIFYING 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 received - 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 IDENTIFYING 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.

KNOLL Ellie * PUC

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-Filed By: PacifiCorp
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-Filing Title: Tariff Filing
-Filing Description: PacifiCorp submits tariff filing per 35.13(a)(2)(iii): OATT Formula Rate - Schedule 10 Trans System Loss Factor June 2022 to be effective 6/1/2022 under ER22-1651 Filing Type : 10 -Type of Filing Code: 10 -Earliest Proposed Effective Date: 6/1/2022 -Submission Date/Time: 4/15/2022 2:34:17 PM -Filed Date: 4/15/2022 2:34:17 PM

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