# Oregon Public Utility Commission

## e-FILING REPORT COVER SHEET

| COMPANY NAME: PacifiCorp d/b/a Pacific Power  |
|---|
| DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? No Yes If yes, submit a redacted public version (or a cover letter) by email. Submit the confidential information as directed in OAR 860-001-0070 or the terms of an applicable protective order. |
| Select report type: RE (Electric) RG (Gas) RW (Water) RT (Telecommunications) RO (Other, for example, industry safety information)  |
| Did you previously file a similar report? No Yes, report docket number:   |
| Report is required by:  Statute  Order  Note: A one-time submission required by an order is a compliance filing and not a report (file compliance in the applicable docket)  Other  (For example, federal regulations, or requested by Staff)   |
| Is this report associated with a specific docket/case? No Yes, docket number: UM 1893   |
| List Key Words for this report. We use these to improve search results.   |
| OAR 860-030-0011, 2019 Energy Efficiency Avoided Cost Report  |
| Send the completed Cover Sheet and the Report in an email addressed to <a href="PUC.FilingCenter@state.or.us">PUC.FilingCenter@state.or.us</a>  |
| Send confidential information, voluminous reports, or energy utility Results of Operations Reports to PUC Filing Center, PO Box 1088, Salem, OR 97308-1088 or by delivery service to 201 High Street SE Suite 100, Salem, OR 97301.             |



October 15, 2019

## **VIA ELECTRONIC FILING**

Public Utility Commission of Oregon 201 High Street SE, Suite 100 Salem, OR 97301-3398

Attn: Filing Center

RE: UM 1893—PacifiCorp's 2019 Energy Efficiency Avoided Cost Report

In accordance with Oregon Administrative Rule 860-030-011(1), PacifiCorp d/b/a Pacific Power encloses for filing its Energy Efficiency Avoided Cost Report in the above-referenced proceeding.

If you have questions about this filing, please contact Cathie Allen, Regulatory Affairs Manager, at (503) 813-5934.

Sincerely,

Etta Lockey

Vice President, Regulation

## **Energy Efficiency Avoided Cost Submission Template - Electric**

**Utility Name: PacifiCorp** 

Submission Date: 10/15/2019

#### **Instructions and Definitions**

- <> Please fill out this workbook completely and per the instructions and submit via electronic filing to docket UM 1893. Submissions are due October 15 of each year.
- <> Inputs will be reviewed and approved by the OPUC before being sent to the Energy Trust of Oregon for use in Avoided Cost development
- <> Provide as much detail as possible when sourcing data inputs, including the link to the source (if available), page number and table or graph number

This will increase the efficiency of this process and require less iteration during the OPUC review period

Required pages 1,2,3,4 refer to data presented in the most recently acknowledged IRP, IRP Update, or General Rate Case unless otherwise noted.

#### 1) Global Inputs - IRP

- <> Most components of the avoided costs are input into this tab including inflation/discount rates, line losses, risk reduction values, T&D deferral values, and generation deferral values
- <> Identify the winter & summer peak periods for Transmission and Distribtution. The Generation LOLP Map will be utilized for generation peak definitions.
- <> If necessary, Energy Trust will work with each utility about sector definitions for T&D for which values to provide for Res, Com, and Ind
- <> Ensure that the dollar years of the data inputs match the source Energy Trust will inflate to the proper year
- <> Please provide the values in the most recently acknowledged IRP

#### 2) Forward Market Prices - IRP

- <> Provide forward market price forecast by month for both high load hours and low load hours
- <> Please provide the dollar amount of these prices that is associated with carbon costs (or %). If it is a dollar value, this is a subset of the total prices provided The total forward market prices should be the FULL price, including carbon
- <> Indicate if the forecast is in nominal or real dollars (and what dollar year if real)
- <> Please provide the values in the most recently acknowledged IRP

#### 3) LOLP - IRP

- <> input a 12x24 Loss of Load Probability neat map per the example in the worksneet
- <> These will be potentially utilized in future iterations of avoided cost updates pending outcome of UM1893
- <> Include heat maps for all days, weekdays only, and weekends only
- <> Please provide the values in the most recently acknowledged IRP

#### 4) RPS Compliance - IRP

- <> Input RPS compliance costs by year
- <> Please provide the values in the most recently acknowledged IRP

#### 1a, 2a, 3a, 4a) Alternative Submissions

- <> Use these worksheets to provide alternative values to the most recently acknowledged IRP values
- <> Provide a rationale for submitting the alternative values in the box provided at the top of each alternative worksheet
- <> If a second set of alternative values is submitted, simply copy the alt tabs necessary and rename to 1b, alt 2 in the tab name

| Clabal Ass   |   | - 1   |  |  |                 | SOURCING                |   |  |
|--|---|---|--|--|-----------------|-------------------------|---|--|
| Global Ass   | •   | •   |  |  |                 |                         | lar years listed here are the same as the source.   |  |
| Avoided Cost Element   | Units   | Value   | Dollar Year                                    | Source   | Source Page #   | Table # (if applicable) |   | Source Notes   |
| nflation Rate  | Percent   | 2.22%   | N/A  | PacifiCorp 2017 IRP  | Vol. 1: pg. 150 |                         | http://www.pacificorp.com/content/dam<br>/pacificorp/doc/Energy_Sources/Integrat<br>ed_Resource_Plan/2017_IRP/2017_IRP_V<br>olumel_IRP_Final.pdf<br>http://www.pacificorp.com/content/dam   | (Sep. 2016 forecast)   |
| teal Discount Rate   | Percent   | 4.26%   | N/A  | PacifiCorp 2017 IRP  | Vol. 1: pg. 150 |                         | /pacificorp/doc/Energy_Sources/Integrat<br>ed_Resource_Plan/2017_IRP/2017_IRP_V<br>olumel_IRP_Final.pdf   | Calculated from inflation and nominal discount rate                                  |
| Regional Act Credit  | Percent   | 10.00%  | N/A  |  |                 |                         |   |  |
|  |   |   |  | T T  |                 |                         | T   | T  |
| Fransmission Loss Factor   | Percent   | 4.53%   | N/A  | PacifiCorp's most recent class-level line losses are from its 2009 Transmission and Distribution toss Study by Management Applications Consulting, inc. published in November 2011. Transmission losses are assumed to be the same for all energy efficiency measures.   |                 |                         |   |  |
| Distribution Loss Factor, Commercial   | Percent   | 5.06%   | N/A  | 2009 Loss Study, Incremental to transmission losses. Reflects proportion of the class interconnected at each voltage level.  |                 |                         |   |  |
| Distribution Loss Factor, Industrial   | Percent   | 2.59%   | N/A  | 2009 Loss Study, Incremental to transmission losses. Reflects proportion of the class interconnected at each voltage level.  |                 |                         |   |  |
| Distribution Loss Factor, Residential  | Percent   | 5.48%   | N/A  | 2009 Loss Study, Incremental to transmission losses. Reflects proportion of the class interconnected at each voltage level.  |                 |                         |   |  |
|  |   |   |  |  |                 |                         |   |  |
| Risk Reduction Value   | \$/MWh  | \$4.33  | 2018   | Risk reduction value for 2017 IRP EE selections calculated using IRP models. The difference in present-value revenue requirement (PVRRd) between stochastic studies and deterministic studies with and without energy efficiency, divided by the net present value of the energy efficiency savings (MWh) yields the S/MWh assumed value of stochastic risk reduction.   |                 |                         |   |  |
|  | 1   |   |  |  |                 |                         | T   | I  |
| Transmission Deferral Credit   | \$/kW-yr  | \$5.94  |  | The 2017 IRP transmission capacity cost accounts for the cost, capacity, and carrying charges associated with planned transmission capacity increase projects. Details on the methodology, which is unchanged from the 2017 IRP, were provided in the August 30-31, 2018 public input meeting, see slide 32  | 32              |                         | https://www.pacificorp.com/content/da<br>m/pcorp/documents/en/pacificorp/energ<br>y/integrated-resource-plan/2019-irp/2019<br>irp-presentations-and-schedule/2018-08-<br>30-31%20-<br>%20General%20Public%20Meeting.pdf   | :  |
| Seasonal Capacity Split - Summer<br>Seasonal Capacity Split - Winter   | Percent<br>Percent  | 48.46%<br>51.54%  | N/A<br>N/A                                     | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910 Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910  |                 |                         |   |  |
| Summer Peak Period Definition  | Month/Da  | Trans. 12x24 profile  | N/A  | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                 |                         |   | Day is intended to be weekday or weekend   |
| Winter Peak Period Definition  |   | Trans. 12x24 profile  |  | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                 |                         |   | Day is intended to be weekday or weekend   |
| Deficiency start year  | Year  | 2018  | N/A  | 2017 IRP Assumption: T&D EE credit applied from first year of study  |                 |                         |   |  |
|  |   |   |  |  |                 |                         |   |  |
| Distribution Deferral Credit   | \$/kW-yr  | \$7.63  | 2018   | Distribution capacity cost accounts for the cost, capacity, and carrying charges associated with planned distribution capacity increase projects, as well as current distribution utilization. Details on the system-wide values under the existing methodology, also used in the 2DT IRP, were provided in the August 30-31, 2DTs public input meeting, slide 32.   | 32              |                         | https://www.pacificorp.com/content/da<br>m/pcorp/documents/en/pacificorp/energy<br>//integrated-resource-plan/2019-irry/2019<br>irrp-presentations-and-schedule/2018-08-<br>30-31%20-<br>%20General%20Public%20Meeting.pdf  |  |
| Seasonal Capacity Split - Summer   | Percent   | 57.29%  | N/A  | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                 |                         |   |  |
|  |   |   |  |  |                 |                         |   |  |
| easonal Capacity Split - Winter  | Percent   | 42.71%  | N/A  | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                 |                         |   | Day is intended to be used in  |
| ummer Peak Period Definition   | Percent<br>Month/Da                                       | 42.71%<br>Dist. 12x24 profile   | N/A  | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                 |                         |   | Day is intended to be weekday or weekend Day is intended to be weekday or weekend    |
| ummer Peak Period Definition<br>Vinter Peak Period Definition  | Percent<br>Month/Da<br>Month/Da                           | 42.71%<br>Dist. 12x24 profile<br>Dist. 12x24 profile                    | N/A<br>N/A                                     | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910<br>Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                 |                         |   | Day is intended to be weekday or weekend<br>Day is intended to be weekday or weekend |
|  | Percent<br>Month/Da                                       | 42.71%<br>Dist. 12x24 profile   | N/A<br>N/A                                     | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                 |                         |   | Day is intended to be weekday or weekend<br>Day is intended to be weekday or weekend |
| ummer Peak Period Definition<br>Vinter Peak Period Definition  | Percent<br>Month/Da<br>Month/Da                           | 42.71%<br>Dist. 12x24 profile<br>Dist. 12x24 profile                    | N/A<br>N/A                                     | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910<br>Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                 |                         |   | Day is intended to be weekday or weekend<br>Day is intended to be weekday or weekend |
| ummer Peak Period Definition<br>Vinter Peak Period Definition<br>verficiency start year  | Percent<br>Month/Da<br>Month/Da                           | 42.71%<br>Dist. 12x24 profile<br>Dist. 12x24 profile                    | N/A<br>N/A<br>N/A                              | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910<br>Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   | 105             |                         | http://www.pacificorp.com/content/dam<br>/pacificorp/doc/Energy, Sources/Integrate<br>do Resource Plan/2017 IRP/2017 IRP Vol<br>umel IRP Final.pdf  | Day is intended to be weekday or weekend<br>Day is intended to be weekday or weekend |
| ummer Peak Period Definition  Vinter Peak Period Definition  Deficiency start year  Generation Capacity Credit  Jeasonal Capacity Split - Summer   | Percent Month/Da Month/Da Year  S/kW-yr                   | 42.71% Dist. 12x24 profile Dist. 12x24 profile 2018 \$82.38             | N/A<br>N/A<br>N/A<br>2018                      | Anahysis for 7/18/2019 RVOS Compliance Filing in UM-1910 Anahysis for 7/18/2019 RVOS Compliance Filing in UM-1910 2017 IRP Assumption: T&D Et credit applied from first year of study  Simple Cycle Combustion Turbine, Frame F, 5050°. 2017 IRP Supply Side Table, Table 6.2 on page 105 (adjusted to 20185).  2017 IRP LOLP Data, June - September events. See 2017 IRP Volume II, Appendix N, Figure N.2 (pg. 317)  | 105             |                         | /pacificorp/doc/Energy Sources/Integrate<br>d Resource Plan/2017 IRP/2017 IRP Vol   | Day is intended to be weekday or weekend<br>Day is intended to be weekday or weekend |
| ummer Peak Period Definition  Vinter Peak Period Definition  Venice Peak Period Definition  V | Percent Month/Da Month/Da Year  S/kW-yr                   | 42.71%<br>Dist. 12x24 profile<br>Dist. 12x24 profile<br>2018<br>\$82.38 | N/A<br>N/A<br>N/A<br>2018                      | Anahysis for 7/18/2019 RVOS Compliance Filing in UM-1910 Anahysis for 7/18/2019 RVOS Compliance Filing in UM-1910 2017 IRP Assumption: T&D EE credit applied from first year of study  Simple Cycle Combustion Turbine, Frame F, 5050°. 2017 IRP Supply Side Table, Table 6.2 on page 105 (adjusted to 20185).  2017 IRP LOLP Data, June - September events. See 2017 IRP Volume II,   |                 |                         | /pacificorp/doc/Energy Sources/Integrate<br>d Resource Plan/2017 IRP/2017 IRP Vol<br>umet IRP Final.pdf<br>http://www.pacificorp.com/content/dam<br>/pacificorp/doc/Energy Sources/Integrate<br>d Resource Plan/2017 IRP /2017 IRP /201 | Day is intended to be weekday or weekend Day is intended to be weekday or weekend    |
| ummer Peak Period Definition  Vinter Peak Period Definition  Deficiency start year  Seneration Capacity Credit  Seneration Capacity Credit  Seasonal Capacity Split - Summer  Seasonal Capacity Split - Winter   | Percent Month/Da Month/Da Year  S/kW-yr                   | 42.71% Dist. 12:24 profile Dist. 12:24 profile 2018 2018 \$82.38        | N/A<br>N/A<br>N/A<br>N/A<br>2018<br>N/A<br>N/A | Anahysis for 7/18/2019 RVOS Compliance Filing in UM-1910 Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910 2017 IRP Assumption: T&D EE credit applied from first year of study Simple Cycle Combustion Turbine, Frame F, 5050'. 2017 IRP Supply Side Table, Table 6.2 on page 105 (adjusted to 20185).  2017 IRP LOLP Data, June - September events. See 2017 IRP Volume II, Appendix NJ, Figure N.2 (pg. 317) 2017 IRP LOLP Data, October - May events  From Standard QF AC approved 2018 07 18 (update following 2017 IRP |                 |                         | /pacificorp/doc/Energy Sources/Integrate<br>d Resource Plan/2017 IRP/2017 IRP Vol<br>umet IRP Final.pdf<br>http://www.pacificorp.com/content/dam<br>/pacificorp/doc/Energy Sources/Integrate<br>d Resource Plan/2017 IRP /2017 IRP /201 | Day is intended to be weekday or weekend Day is intended to be weekday or weekend    |
| ummer Peak Period Definition  Vinter Peak Period Definition  Venice Peak Period Definition  V | Percent Month/Da Month/Da Year  S/kW-yr                   | 42.71% Dist. 12x24 profile Dist. 12x24 profile 2018 \$82.38             | N/A<br>N/A<br>N/A<br>N/A<br>2018<br>N/A<br>N/A | Anahysis for 7/18/2019 RVOS Compliance Filing in UM-1910 Anahysis for 7/18/2019 RVOS Compliance Filing in UM-1910 2017 IRP Assumption: T&D EE credit applied from first year of study  Simple Cycle Combustion Turbine, Frame F, 5050°. 2017 IRP Supply Side Table, Table 6.2 on page 105 (adjusted to 20185).  2017 IRP LOLP Data, June - September events. See 2017 IRP Volume II, Appendix N, Figure N.2 (pg. 317) 2017 IRP LOLP Data, October - May events   |                 |                         | Inacificoro/doc/Energy, Sources/Integrate d Resource Plan/2017 IRP/2017 IRP Vol umel IRP Final.odf http://www.pacificoro.com/content/dam lacificorp/doc/Energy, Sources/Integrate d. Resource Plan/2017 IRP/2017 IRP Vol umell 2017 IRP Final.odf https://www.pacificpower.net/content/d am/pacific power/doc/About Us/Raters, Regulation/Oreson/Aporyout draffis/PURP A Power Source Agreement/Standard. A Power Source Agreement/Standard.  | Day is intended to be weekday or weekend Day is intended to be weekday or weekend    |
| ummer Peak Period Definition (inter Peak Period Definition eficiency start year  eficiency start year  eneration Capacity Credit  easonal Capacity Split - Summer easonal Capacity Split - Winter  | Percent Month/Da Month/Da Year  S/kW-yr  Percent  Percent | 42.71% Dist. 12:24 profile Dist. 12:24 profile 2018 2018 \$82.38        | N/A<br>N/A<br>N/A<br>N/A<br>2018<br>N/A<br>N/A | Anahysis for 7/18/2019 RVOS Compliance Filing in UM-1910 Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910 2017 IRP Assumption: T&D EE credit applied from first year of study Simple Cycle Combustion Turbine, Frame F, 5050'. 2017 IRP Supply Side Table, Table 6.2 on page 105 (adjusted to 20185).  2017 IRP LOLP Data, June - September events. See 2017 IRP Volume II, Appendix NJ, Figure N.2 (pg. 317) 2017 IRP LOLP Data, October - May events  From Standard QF AC approved 2018 07 18 (update following 2017 IRP |                 |                         | Inacificoro/doc/Energy, Sources/Integrate d Resource Plan/2017 IRP/2017 IRP Vol umel IRP Final.odf http://www.pacificoro.com/content/dam lacificorp/doc/Energy, Sources/Integrate d. Resource Plan/2017 IRP/2017 IRP Vol umell 2017 IRP Final.odf https://www.pacificpower.net/content/d am/pacific power/doc/About Us/Raters, Regulation/Oreson/Aporyout draffis/PURP A Power Source Agreement/Standard. A Power Source Agreement/Standard.  | Day is intended to be weekday or weekend Day is intended to be weekday or weekend    |

6.57%

## **Forward Price Inputs**

| Real or Nominal?           | Nominal                |                                       |
|----------------------------|------------------------|---------------------------------------|
| Dollar Year:               | n/a                    |                                       |
| Carbon Prices Additive?    | Additive               |                                       |
| Carbon Value Units (\$/MWh | \$/Ton                 |                                       |
| Source and Pg #:           | PacifiCorp September   | 30, 2019 Official Forward Price Curve |
| Source Link or File Name:  |                        |                                       |
| Source Notes:              | Data for 2041+ escalat | ed at inflation                       |

NOTES:

Please provide notes as to how this value relates to forward market prices. It can be expressed as a percentage of forward market prices, a set \$/MWh, or \$/ton. Please identify the units in the box to the left

PacifiCorp's 2017 IRP did not specifically identify a carbon emissions rate for market purchases.

|  |      |      |           |       |       | HLH Carbon Cost         | LLH Carbon Cost         |
|--|------|------|-----------|-------|-------|-------------------------|-------------------------|
| 2021   |      |      |           |       |       | (OR % of HLH Price that | (OR % of LLH Price that |
| 2021 2/1/2021 28.77 26.11  | Year |      |           |       |       | accounts for Carbon?)   | accounts for Carbon?)   |
| 2021   31/1/2021   25.67   23.62   -   -   -   |      |      |           |       |       | -                       | -                       |
| 2021 4/1/2021 19:0 16:54   |      |      |           |       |       | -                       | -                       |
| 2021 5/1/2021 19.48 9.55   |      |      |           |       |       | -                       | -                       |
| 2021 6/1/2021 48.32 27.99  |      |      |           |       |       | -                       | -                       |
| 2021   |      |      |           |       |       | -                       | -                       |
| 2021   8/1/2021   52.61   32.49   -     -  |      |      |           |       |       | -                       | -                       |
| 2021   9/1/2021   47.36   31.22   -  |      |      |           |       |       | -                       | -                       |
| 2021   |      |      |           |       |       | -                       | -                       |
| 2021 11/1/2021 28.06 22.31   |      |      |           |       |       | -                       | -                       |
| 2021 12/1/2021 28.06 22.31   |      |      |           |       |       | -                       | -                       |
| 2022 11/1/2022 28.35 23.49   |      |      |           |       |       | -                       | -                       |
| 2022   |      |      |           |       |       | -                       | -                       |
| 2022 3/1/2022 27.38 23.86  |      |      |           |       |       | -                       | -                       |
| 2022 4/1/2022 22.24 16.59  |      |      |           |       |       | -                       | -                       |
| 2022   5/1/2022   22.51   12.40   -   -   -     2022   6/1/2022   23.67   14.00   -   -     2022   7/1/2022   51.09   32.43   -     2022   8/1/2022   56.16   37.08   -     2022   9/1/2022   51.44   35.45   -     2022   10/1/2022   25.66   22.20   -     2022   10/1/2022   25.66   22.20   -     2022   11/1/2022   29.59   25.27   -     2022   12/1/2022   31.54   26.59   -     2023   1/1/2023   30.58   27.18   -     2023   2/1/2023   30.98   26.91   -     2023   3/1/2023   28.51   24.05   -     2023   4/1/2023   24.07   18.81   -     2023   4/1/2023   24.07   18.81   -     2023   4/1/2023   21.13   13.27   -     2023   6/1/2023   21.13   13.27   -     2023   6/1/2023   21.13   13.27   -     2023   6/1/2023   24.07   40.32   -     2023   6/1/2023   24.07   40.32   -     2023   6/1/2023   24.07   40.32   -     2023   6/1/2023   24.07   40.32   -     2023   6/1/2023   24.07   40.32   -     2023   6/1/2023   24.07   40.32   -     2023   7/1/2023   64.07   40.32   -     2023   7/1/2023   64.07   40.32   -     2023   10/1/2023   29.42   25.65   -     2023   10/1/2023   29.42   25.65   -     2023   10/1/2023   29.42   25.65   -     2024   1/1/2024   33.32   30.26   -     2024   1/1/2024   33.32   30.26   -     2024   1/1/2024   28.24   23.91   -     2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   41.72   37.47   -     2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   41.72   37.47   -       2024   6/1/2024   33.37   29.89   -       2024   6/1/2024   33.37   29.89   -       2024   10/1/2024   34.13   29.79     2024   10/1/2024   34.13   29.79     2024   10/1/2024   34.13   29.79     2024 |      |      |           |       |       | -                       | -                       |
| 2022 6/1/2022 23.67 14.00 -  |      |      |           |       |       | -                       | -                       |
| 2022       7/1/2022       51.09       32.43       -       -         2022       8/1/2022       56.16       37.08       -       -         2022       9/1/2022       51.44       35.45       -       -         2022       10/1/2022       25.66       22.20       -       -         2022       11/1/2022       29.59       25.27       -       -         2023       1/1/2023       30.58       27.18       -       -         2023       2/1/2023       30.98       26.91       -       -         2023       3/1/2023       28.51       24.05       -       -         2023       4/1/2023       24.07       18.81       -       -       -         2023       5/1/2023       21.13       13.27       -       -       -         2023       5/1/2023       32.88       25.24       -       -       -         2023       7/1/2023       68.54       43.63       -       -       -         2023       8/1/2023       68.54       43.63       -       -       -         2023       10/1/2023       32.16       26.91       -       -   |      |      |           |       |       | -                       | -                       |
| 2022       8/1/2022       56.16       37.08       -       -         2022       9/1/2022       51.44       35.45       -       -         2022       10/1/2022       25.66       22.20       -       -         2022       11/1/2022       29.59       25.27       -       -         2023       11/1/2022       31.54       26.59       -       -         2023       1/1/2023       30.58       27.18       -       -         2023       2/1/2023       30.98       26.91       -       -         2023       3/1/2023       28.51       24.05       -       -         2023       4/1/2023       24.07       18.81       -       -       -         2023       4/1/2023       24.07       18.81       -       -       -       -         2023       4/1/2023       32.88       25.24       -       -       -       -         2023       6/1/2023       32.88       25.24       -       -       -       -         2023       7/1/2023       68.54       43.63       -       -       -       -         2023       19/1/2023       32.6 <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td>   |      |      |           |       |       | -                       | -                       |
| 2022 9/1/2022 51.44 35.45  |      |      |           |       |       | -                       | -                       |
| 2022   10/1/2022   25.66   22.20   -     -   |      |      |           |       |       | -                       | -                       |
| 2022       11/1/2022       29.59       25.27       -       -         2022       12/1/2023       31.54       26.59       -       -         2023       1/1/2023       30.58       27.18       -       -         2023       2/1/2023       30.98       26.91       -       -         2023       3/1/2023       28.51       24.05       -       -         2023       4/1/2023       24.07       18.81       -       -         2023       5/1/2023       21.13       13.27       -       -         2023       6/1/2023       32.88       25.24       -       -         2023       6/1/2023       32.88       25.24       -       -         2023       7/1/2023       64.07       40.32       -       -         2023       8/1/2023       68.54       43.63       -       -         2023       9/1/2023       43.69       34.45       -       -         2023       10/1/2023       29.42       25.65       -       -         2023       11/1/2023       32.16       26.91       -       -         2023       12/1/2024       33.29 <td< td=""><td></td><td></td><td></td><td></td><td></td><td>-</td><td>-</td></td<>  |      |      |           |       |       | -                       | -                       |
| 2022       12/1/2022       31.54       26.59       -       -         2023       1/1/2023       30.58       27.18       -       -         2023       2/1/2023       30.98       26.91       -       -         2023       3/1/2023       28.51       24.05       -       -         2023       4/1/2023       24.07       18.81       -       -         2023       5/1/2023       32.88       25.24       -       -         2023       6/1/2023       32.88       25.24       -       -         2023       7/1/2023       64.07       40.32       -       -         2023       8/1/2023       68.54       43.63       -       -         2023       9/1/2023       43.69       34.45       -       -         2023       10/1/2023       29.42       25.65       -       -         2023       11/1/2023       34.89       29.84       -       -         2024       1/1/2024       33.32       30.26       -       -         2024       2/1/2024       32.05       28.16       -       -         2024       5/1/2024       19.83       1   |      |      |           |       |       | -                       | -                       |
| 2023   |      |      | 11/1/2022 | 29.59 | 25.27 | -                       | -                       |
| 2023       2/1/2023       30.98       26.91       -       -         2023       3/1/2023       28.51       24.05       -       -         2023       4/1/2023       24.07       18.81       -       -         2023       5/1/2023       21.13       13.27       -       -         2023       6/1/2023       32.88       25.24       -       -         2023       7/1/2023       64.07       40.32       -       -         2023       8/1/2023       68.54       43.63       -       -         2023       9/1/2023       43.69       34.45       -       -         2023       10/1/2023       29.42       25.65       -       -         2023       11/1/2023       32.16       26.91       -       -         2023       11/1/2023       32.16       26.91       -       -         2024       1/1/2024       33.32       30.26       -       -         2024       1/1/2024       33.32       30.26       -       -         2024       3/1/2024       28.24       23.91       -       -         2024       5/1/2024       19.83       1   |      |      | 12/1/2022 | 31.54 | 26.59 | -                       | -                       |
| 2023       3/1/2023       28.51       24.05       -       -         2023       4/1/2023       24.07       18.81       -       -         2023       5/1/2023       21.13       13.27       -       -         2023       6/1/2023       32.88       25.24       -       -         2023       6/1/2023       64.07       40.32       -       -         2023       8/1/2023       68.54       43.63       -       -         2023       9/1/2023       43.69       34.45       -       -         2023       10/1/2023       29.42       25.65       -       -         2023       11/1/2023       32.16       26.91       -       -         2023       11/1/2023       34.89       29.84       -       -         2024       1/1/2024       33.32       30.26       -       -         2024       2/1/2024       32.05       28.16       -       -         2024       3/1/2024       28.24       23.91       -       -         2024       4/1/2024       24.81       20.17       -       -         2024       6/1/2024       19.83       1   |      |      |           |       |       | -                       | -                       |
| 2023       4/1/2023       24.07       18.81       -       -         2023       5/1/2023       21.13       13.27       -       -         2023       6/1/2023       32.88       25.24       -       -         2023       7/1/2023       64.07       40.32       -       -         2023       8/1/2023       68.54       43.63       -       -         2023       9/1/2023       43.69       34.45       -       -         2023       10/1/2023       29.42       25.65       -       -         2023       11/1/2023       32.16       26.91       -       -         2024       1/1/2023       34.89       29.84       -       -         2024       1/1/2023       34.89       29.84       -       -         2024       1/1/2024       33.32       30.26       -       -         2024       1/1/2024       32.05       28.16       -       -         2024       3/1/2024       28.24       23.91       -       -         2024       6/1/2024       19.83       12.99       -       -         2024       6/1/2024       19.83       12   |      |      | 2/1/2023  | 30.98 | 26.91 | -                       | -                       |
| 2023       5/1/2023       21.13       13.27       -       -         2023       6/1/2023       32.88       25.24       -       -         2023       7/1/2023       64.07       40.32       -       -         2023       8/1/2023       68.54       43.63       -       -         2023       9/1/2023       43.69       34.45       -       -         2023       10/1/2023       29.42       25.65       -       -         2023       11/1/2023       32.16       26.91       -       -         2023       12/1/2023       34.89       29.84       -       -         2024       1/1/2024       33.32       30.26       -       -         2024       2/1/2024       32.05       28.16       -       -         2024       3/1/2024       28.24       23.91       -       -         2024       4/1/2024       24.81       20.17       -       -         2024       5/1/2024       19.83       12.99       -       -         2024       6/1/2024       41.72       37.47       -       -         2024       8/1/2024       73.64       4   |      |      |           | 28.51 | 24.05 | -                       | -                       |
| 2023 6/1/2023 32.88 25.24  |      |      | 4/1/2023  | 24.07 |       | -                       | -                       |
| 2023       7/1/2023       64.07       40.32       -       -         2023       8/1/2023       68.54       43.63       -       -         2023       9/1/2023       43.69       34.45       -       -         2023       10/1/2023       29.42       25.65       -       -         2023       11/1/2023       32.16       26.91       -       -         2024       12/1/2023       34.89       29.84       -       -         2024       1/1/2024       33.32       30.26       -       -         2024       1/1/2024       32.05       28.16       -       -         2024       2/1/2024       32.05       28.16       -       -         2024       3/1/2024       28.24       23.91       -       -         2024       4/1/2024       24.81       20.17       -       -         2024       5/1/2024       19.83       12.99       -       -         2024       6/1/2024       41.72       37.47       -       -         2024       7/1/2024       73.64       45.87       -       -         2024       9/1/2024       33.37       2   |      |      | 5/1/2023  |       |       | -                       | -                       |
| 2023       8/1/2023       68.54       43.63       -       -         2023       9/1/2023       43.69       34.45       -       -         2023       10/1/2023       29.42       25.65       -       -         2023       11/1/2023       32.16       26.91       -       -         2023       12/1/2023       34.89       29.84       -       -         2024       1/1/2024       33.32       30.26       -       -         2024       2/1/2024       32.05       28.16       -       -         2024       3/1/2024       28.24       23.91       -       -         2024       4/1/2024       24.81       20.17       -       -         2024       5/1/2024       19.83       12.99       -       -         2024       6/1/2024       41.72       37.47       -       -         2024       7/1/2024       73.64       45.87       -       -         2024       8/1/2024       76.83       49.94       -       -         2024       9/1/2024       33.37       29.89       -       -         2024       10/1/2024       30.59  |      |      | 6/1/2023  | 32.88 | 25.24 | -                       | -                       |
| 2023       9/1/2023       43.69       34.45       -       -         2023       10/1/2023       29.42       25.65       -       -         2023       11/1/2023       32.16       26.91       -       -         2023       12/1/2023       34.89       29.84       -       -         2024       1/1/2024       33.32       30.26       -       -         2024       2/1/2024       32.05       28.16       -       -         2024       3/1/2024       28.24       23.91       -       -         2024       4/1/2024       24.81       20.17       -       -         2024       5/1/2024       19.83       12.99       -       -         2024       6/1/2024       41.72       37.47       -       -         2024       7/1/2024       73.64       45.87       -       -         2024       8/1/2024       76.83       49.94       -       -         2024       9/1/2024       33.37       29.89       -       -         2024       10/1/2024       30.59       28.55       -       -         2024       11/1/2024       34.13 <td< td=""><td></td><td>2023</td><td>7/1/2023</td><td>64.07</td><td>40.32</td><td>-</td><td>-</td></td<>  |      | 2023 | 7/1/2023  | 64.07 | 40.32 | -                       | -                       |
| 2023       10/1/2023       29.42       25.65       -       -         2023       11/1/2023       32.16       26.91       -       -         2023       12/1/2023       34.89       29.84       -       -         2024       1/1/2024       33.32       30.26       -       -         2024       2/1/2024       32.05       28.16       -       -         2024       3/1/2024       28.24       23.91       -       -         2024       4/1/2024       24.81       20.17       -       -         2024       5/1/2024       19.83       12.99       -       -         2024       6/1/2024       41.72       37.47       -       -         2024       7/1/2024       73.64       45.87       -       -         2024       8/1/2024       76.83       49.94       -       -         2024       9/1/2024       33.37       29.89       -       -         2024       10/1/2024       30.59       28.55       -       -         2024       11/1/2024       34.13       29.79       -       -         2024       12/1/2024       38.53 <t< td=""><td></td><td>2023</td><td>8/1/2023</td><td>68.54</td><td>43.63</td><td>-</td><td>-</td></t<>   |      | 2023 | 8/1/2023  | 68.54 | 43.63 | -                       | -                       |
| 2023       11/1/2023       32.16       26.91       -       -         2023       12/1/2023       34.89       29.84       -       -         2024       1/1/2024       33.32       30.26       -       -         2024       2/1/2024       32.05       28.16       -       -         2024       3/1/2024       28.24       23.91       -       -         2024       4/1/2024       24.81       20.17       -       -         2024       5/1/2024       19.83       12.99       -       -         2024       6/1/2024       41.72       37.47       -       -         2024       7/1/2024       73.64       45.87       -       -         2024       8/1/2024       76.83       49.94       -       -         2024       9/1/2024       33.37       29.89       -       -         2024       10/1/2024       30.59       28.55       -       -         2024       11/1/2024       34.13       29.79       -       -         2024       12/1/2024       38.53       31.86       -       -   |      |      | 9/1/2023  | 43.69 | 34.45 | -                       | -                       |
| 2023       12/1/2023       34.89       29.84       -       -         2024       1/1/2024       33.32       30.26       -       -         2024       2/1/2024       32.05       28.16       -       -         2024       3/1/2024       28.24       23.91       -       -         2024       4/1/2024       24.81       20.17       -       -         2024       5/1/2024       19.83       12.99       -       -         2024       6/1/2024       41.72       37.47       -       -         2024       7/1/2024       73.64       45.87       -       -         2024       8/1/2024       76.83       49.94       -       -         2024       9/1/2024       33.37       29.89       -       -         2024       10/1/2024       30.59       28.55       -       -         2024       11/1/2024       34.13       29.79       -       -         2024       12/1/2024       38.53       31.86       -       -  |      | 2023 | 10/1/2023 | 29.42 | 25.65 | -                       | -                       |
| 2024       1/1/2024       33.32       30.26       -       -         2024       2/1/2024       32.05       28.16       -       -         2024       3/1/2024       28.24       23.91       -       -         2024       4/1/2024       24.81       20.17       -       -         2024       5/1/2024       19.83       12.99       -       -         2024       6/1/2024       41.72       37.47       -       -         2024       7/1/2024       73.64       45.87       -       -       -         2024       8/1/2024       76.83       49.94       -       -       -         2024       9/1/2024       33.37       29.89       -       -       -         2024       10/1/2024       30.59       28.55       -       -       -         2024       11/1/2024       34.13       29.79       -       -       -         2024       12/1/2024       38.53       31.86       -       -       -   |      |      | 11/1/2023 |       |       | -                       | -                       |
| 2024       2/1/2024       32.05       28.16       -       -         2024       3/1/2024       28.24       23.91       -       -         2024       4/1/2024       24.81       20.17       -       -         2024       5/1/2024       19.83       12.99       -       -         2024       6/1/2024       41.72       37.47       -       -         2024       7/1/2024       73.64       45.87       -       -         2024       8/1/2024       76.83       49.94       -       -       -         2024       9/1/2024       33.37       29.89       -       -       -         2024       10/1/2024       30.59       28.55       -       -       -         2024       11/1/2024       34.13       29.79       -       -       -         2024       12/1/2024       38.53       31.86       -       -       -   |      |      |           |       |       | -                       | -                       |
| 2024       3/1/2024       28.24       23.91       -       -         2024       4/1/2024       24.81       20.17       -       -         2024       5/1/2024       19.83       12.99       -       -         2024       6/1/2024       41.72       37.47       -       -         2024       7/1/2024       73.64       45.87       -       -         2024       8/1/2024       76.83       49.94       -       -         2024       9/1/2024       33.37       29.89       -       -         2024       10/1/2024       30.59       28.55       -       -         2024       11/1/2024       34.13       29.79       -       -         2024       12/1/2024       38.53       31.86       -       -       -   |      | 2024 | 1/1/2024  | 33.32 | 30.26 | -                       | -                       |
| 2024       4/1/2024       24.81       20.17       -       -         2024       5/1/2024       19.83       12.99       -       -         2024       6/1/2024       41.72       37.47       -       -         2024       7/1/2024       73.64       45.87       -       -         2024       8/1/2024       76.83       49.94       -       -         2024       9/1/2024       33.37       29.89       -       -         2024       10/1/2024       30.59       28.55       -       -         2024       11/1/2024       34.13       29.79       -       -         2024       12/1/2024       38.53       31.86       -       -   |      |      | 2/1/2024  |       |       | -                       | -                       |
| 2024       5/1/2024       19.83       12.99       -  |      |      | 3/1/2024  | 28.24 | 23.91 | -                       | -                       |
| 2024       6/1/2024       41.72       37.47       -       -         2024       7/1/2024       73.64       45.87       -       -         2024       8/1/2024       76.83       49.94       -       -         2024       9/1/2024       33.37       29.89       -       -         2024       10/1/2024       30.59       28.55       -       -         2024       11/1/2024       34.13       29.79       -       -         2024       12/1/2024       38.53       31.86       -       -   |      |      | 4/1/2024  | 24.81 | 20.17 | -                       | -                       |
| 2024     7/1/2024     73.64     45.87     -     -       2024     8/1/2024     76.83     49.94     -     -       2024     9/1/2024     33.37     29.89     -     -       2024     10/1/2024     30.59     28.55     -     -       2024     11/1/2024     34.13     29.79     -     -       2024     12/1/2024     38.53     31.86     -     -   |      | 2024 | 5/1/2024  | 19.83 | 12.99 | -                       | -                       |
| 2024       8/1/2024       76.83       49.94       -  |      |      | 6/1/2024  |       |       | -                       | -                       |
| 2024     9/1/2024     33.37     29.89     -     -       2024     10/1/2024     30.59     28.55     -     -       2024     11/1/2024     34.13     29.79     -     -       2024     12/1/2024     38.53     31.86     -     -   |      |      |           |       |       | -                       | -                       |
| 2024     10/1/2024     30.59     28.55     -     -       2024     11/1/2024     34.13     29.79     -     -       2024     12/1/2024     38.53     31.86     -     -   |      |      | 8/1/2024  | 76.83 |       | -                       | -                       |
| 2024     11/1/2024     34.13     29.79     -     -       2024     12/1/2024     38.53     31.86     -     -  |      |      |           |       |       | -                       | -                       |
| 2024 12/1/2024 38.53 31.86   |      |      |           |       |       | -                       | -                       |
|  |      |      | 11/1/2024 | 34.13 |       | -                       | -                       |
| 2025 1/1/2025 35.98 32.54 4.75 4.75  |      |      |           |       |       | -                       | -                       |
|  |      | 2025 | 1/1/2025  | 35.98 | 32.54 | 4.75                    | 4.75                    |

#### Loss of Load Probability Heat Map Input

#### NOTE: This is utilitized for generation deferrals only.

Source and page #: 2017 IRP: Data disk 2 CONF, Chapters + Appendix, Appendix N - Wind & Solar Capacity Contribution Study

Irce Link or File Name: Tbl N.1, Capacity Factor Calculation Wind and Solar.xlsx - tab Hourly LOLP, col BB:BY

The LOLP data from the 2017 IRP was prepared in 2016, at the beginning of the IRP development process.

Since that time there have been sizeable additions of renewable resources to the Company's portfolio, and significant changes in the composition

of the preferred portfolio.

For instance, the 2015 IRP Update preferred portfolio, which formed the basis for the LOLP data in the 2017 IRP, did not include any proxy wind

Source Notes: or solar resource additions.

|  |  | ENDS |
|--|--|------|
|  |  |      |

| WEEKDAYS & WEEKENDS |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Count               | 31   | 28   | 31   | 30   | 31   | 30   | 31   | 31   | 30   | 31   | 30   | 31   |
| Hr Ending           | Jan  | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  |
| 1                   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2                   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3                   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4                   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5                   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6                   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7                   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8                   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9                   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 23                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 24                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

#### WEEKDAYS ONLY

| Count | 3:   | 1 28 | 31   | . 30 | 31   | 30   | 31   | 31   | 30   | 31   | . 30 | 31   |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|
|       | Jan  | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  |
| 1     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 23    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 24    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

#### EXAMPLE

| Count     | 31   | 28   | 31   | 30   | 31   | 30   | 31   | 31   | 30   | 31   | 30   | 31   |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| Hr Ending | Jan  | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  |
| 1         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 23        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 24        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# **RPS Compliance Inputs IRP**

| Real or Nominal?          | Nominal  |   |
|---------------------------|--|---|
| Dollar Year:              |  |   |
| Source and Pg #:          | 2017 IRP Vol. 1, pg. 244   |   |
| Source Link or File Name: | http://www.pacificorp.com/contentated_Resource_Plan/2017_IRP/201 | t/dam/pacificorp/doc/Energy_Sources/Integr<br>7_IRP_VolumeI_IRP_Final.pdf |
| Causa Natara              | added for the purpose of RPS comp                                | liance. The cost-effective renewables in the                              |
| Source Notes:             | portfolio are lower cost than non-R                              | PS alternatives.  |

|      | RPS Compliance Cost (\$/MWh) |   | Avoided RPS Compliance Obligation (%) |
|------|------------------------------|---|---------------------------------------|
| 2021 |                              | 0 | 20%                                   |
| 2022 |                              | 0 | 20%                                   |
| 2023 |                              | 0 | 20%                                   |
| 2024 |                              | 0 | 20%                                   |
| 2025 |                              | 0 | 27%                                   |
| 2026 |                              | 0 | 27%                                   |
| 2027 |                              | 0 | 27%                                   |
| 2028 |                              | 0 | 27%                                   |
| 2029 |                              | 0 | 27%                                   |
| 2030 |                              | 0 | 35%                                   |
| 2031 |                              | 0 | 35%                                   |
| 2032 |                              | 0 | 35%                                   |
| 2033 |                              | 0 | 35%                                   |
| 2034 |                              | 0 | 35%                                   |
| 2035 |                              |   | 45%                                   |
| 2036 |                              |   | 45%                                   |
| 2037 |                              |   | 45%                                   |
| 2038 |                              |   | 45%                                   |
| 2039 |                              |   | 45%                                   |
| 2040 |                              |   | 50%                                   |
| 2041 |                              |   | 50%                                   |
| 2042 |                              |   | 50%                                   |
| 2043 |                              |   | 50%                                   |
| 2044 |                              |   | 50%                                   |
| 2045 |                              |   | 50%                                   |
| 2046 |                              |   | 50%                                   |
| 2047 |                              |   | 50%                                   |
| 2048 |                              |   | 50%                                   |
| 2049 |                              |   | 50%                                   |
| 2050 |                              |   | 50%                                   |
|      |                              |   |                                       |

### Rationale for alternative submission: PacifiCorp's 2019 IRP includes significantly more recent data and significant portfolio changes that can drive avoided costs. **Alternative Submissions**

| Global                                | Assumptions In | nnuts                |             |  |                                     | DURCING                 |                          |  |
|---------------------------------------|----------------|----------------------|-------------|--|-------------------------------------|-------------------------|--------------------------|--|
|                                       |                | -                    |             | ,  | ossible with sourcing including a l |                         |                          |  |
| Avoided Cost Element                  | Units          | Value                | Dollar Year | Source   | Source Page #                       | Table # (if applicable) | Source Link or File Name | Source Notes                             |
| nflation Rate                         | Percent        | 2.28%                | N/A         | PacifiCorp 2019 IRP  |                                     |                         |                          |  |
| teal Discount Rate                    | Percent        | 4.54%                | N/A         | PacifiCorp 2019 IRP  |                                     |                         |                          |  |
|                                       |                |                      |             |  | •                                   |                         | ,                        |  |
| Regional Act Credit                   | Percent        | 10.00%               | N/A         |  |                                     |                         |                          |  |
|                                       | <u> </u>       | T                    |             | PacifiCorp's most recent class-level line losses are from its 2009   |                                     |                         | 1                        |  |
|                                       |                |                      |             | Transmission and Distribution Loss Study by Management   |                                     |                         |                          |  |
|                                       |                |                      |             |  |                                     |                         |                          |  |
|                                       |                |                      |             | Applications Consulting, Inc. published in November 2011.  |                                     |                         |                          |  |
|                                       |                |                      |             | Transmission losses are assumed to be the same for all energy  |                                     |                         |                          |  |
| ransmission Loss Factor               | Percent        | 4.53%                | N/A         | efficiency measures.   |                                     |                         |                          |  |
|                                       |                |                      |             | 2000 Loss Study, Ingramental to transmission losses. Reflects  |                                     |                         |                          |  |
|                                       |                | 5.050/               |             | 2009 Loss Study, Incremental to transmission losses. Reflects  |                                     |                         |                          |  |
| Distribution Loss Factor, Commercial  | Percent        | 5.06%                | N/A         | proportion of the class interconnected at each voltage level.  |                                     |                         |                          |  |
|                                       |                |                      |             | 2009 Loss Study, Incremental to transmission losses. Reflects  |                                     |                         |                          |  |
| Distribution Loss Factor, Industrial  | Percent        | 2.59%                | N/A         | proportion of the class interconnected at each voltage level.  |                                     |                         |                          |  |
| Distribution Eoss ractor, industrial  | i citent       | 2.33/0               | 11/14       | proportion of the diass interconnected at each voltage level.  |                                     |                         |                          |  |
|                                       |                |                      |             | 2009 Loss Study, Incremental to transmission losses. Reflects  |                                     |                         |                          |  |
| Distribution Loss Factor, Residential | Percent        | 5.48%                | N/A         | proportion of the class interconnected at each voltage level.  |                                     |                         |                          |  |
| Distribution 2033 Factor, Residential | refeelie       | 3.40/0               | 14/75       | proportion of the class interconnected at each voltage level.  |                                     |                         |                          |  |
|                                       |                | T T                  |             |  |                                     |                         |                          |  |
|                                       |                |                      |             | Risk reduction value for 2019 IRP EE selections calculated using IRP   |                                     |                         |                          |  |
|                                       |                |                      |             | models. The difference in present-value revenue requirement  |                                     |                         |                          |  |
|                                       |                |                      |             | (PVRRd) between stochastic studies and deterministic studies with  |                                     |                         |                          |  |
|                                       |                |                      |             | and without energy efficiency, divided by the net present value of   |                                     |                         |                          |  |
|                                       |                |                      |             |  |                                     |                         |                          |  |
|                                       |                |                      |             | the energy efficiency savings (MWh) yields the \$/MWh assumed  |                                     |                         |                          |  |
| tisk Reduction Value                  | \$/MWh         | \$4.10               | 2018        | value of stochastic risk reduction.  |                                     |                         | l                        |  |
| ransmission Deferral Credit           | \$/kW-yr       | \$4.16               | 2010        | 2019 IRP EE Transmission Credit  |                                     |                         | 1                        |  |
| Seasonal Capacity Split - Summer      | Percent        | 48.46%               | N/A         | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                                     |                         |                          |  |
| easonal Capacity Split - Summer       | _              | 51.54%               | N/A         | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910  Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                                     |                         |                          |  |
|                                       | Percent        |                      |             | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                                     |                         |                          |  |
| Summer Peak Period Definition         | Month/Day/Hour |                      | N/A         |  |                                     |                         |                          | Day is intended to be weekday or weekend |
| Vinter Peak Period Definition         | Month/Day/Hour | Trans. 12x24 profile | N/A         | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                                     |                         |                          | Day is intended to be weekday or weekend |
|                                       |                |                      |             | 2017 IRP Assumption: T&D EE credit applied from first year of  |                                     |                         |                          |  |
| Deficiency start year                 | Year           | 2018                 | N/A         | study  |                                     |                         |                          |  |
|                                       | 14.000         | 40.00                | 2040        | Inner inner Total Control of the Con | T                                   |                         | 1                        |  |
| istribution Deferral Credit           | \$/kW-yr       | \$9.20               |             | 2019 IRP EE Transmission Credit (Oregon)   |                                     |                         |                          |  |
| easonal Capacity Split - Summer       | Percent        | 57.29%               | N/A         | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                                     |                         |                          |  |
| Seasonal Capacity Split - Winter      | Percent        | 42.71%               | N/A         | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                                     |                         |                          |  |
| ummer Peak Period Definition          | Month/Day/Hour | Dist. 12x24 profile  | N/A         | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                                     |                         |                          | Day is intended to be weekday or weekend |
| Vinter Peak Period Definition         | Month/Day/Hour | Dist. 12x24 profile  | N/A         | Analysis for 7/18/2019 RVOS Compliance Filing in UM-1910   |                                     |                         |                          | Day is intended to be weekday or weekend |
|                                       |                | 2010                 | N1/A        | 2017 IRP Assumption: T&D EE credit applied from first year of  |                                     |                         |                          |  |
| eficiency start year                  | Year           | 2018                 | N/A         | study  |                                     |                         |                          |  |
| Connection Connects Condit            | Č (lak)        | 602.76               | 2010        | Naughton Brownfield SCCT Frame F. 2019 IRP Table 6.2   | ı                                   |                         | 1                        |  |
| Generation Capacity Credit            | \$/kW-yr       | \$83.76              |             | INAUGITION DIOWNTIERS SECT FRAME F. 2019 IKP TABLE 6.2   |                                     |                         | ļ                        |  |
| easonal Capacity Split - Summer       | Percent        | 92.02%               | N/A         |  |                                     |                         | 1                        |  |
| Seasonal Capacity Split - Winter      | Percent        | 7.98%                | N/A         | SCCT Frame NTN, 2019 IRP Table 8.18  |                                     |                         |                          |  |
| Deficiency start year                 | Year           | 2026                 | N/A         | DOCT FIAITIE INTIN, 2019 IKP TABIE 8.18  |                                     |                         | L                        |  |
| DC Consuling or Cost                  | Č /A MA/I-     |                      |             |  | T                                   |                         |                          |  |
| PS Compliance Cost                    | \$/MWh         | see annual table     | N1/A        |  |                                     |                         | ļ                        |  |
| Avoided RPS Compliance Obligation     | %              | see annual table     | N/A         |  |                                     |                         |                          |  |

6.92%

| Alternative | Rationale for alternative submission:  |
|-------------|--|
| Aiternative | Medium CO2 assumptions used in the 2019 IRP. PacifiCorp is not proposing an alternative forward price curve. |
| Submissions |  |

## **Forward Price Inputs**

| Real or Nominal?           | Nominal                 |                |
|----------------------------|-------------------------|----------------|
| Dollar Year:               | n/a                     |                |
| Carbon Prices Additive?    | Additive                |                |
| Carbon Value Units (\$/MWh | \$/Ton                  |                |
| Source and Pg #:           | 2019 IRP Medium CO2     | prices         |
| Source Link or File Name:  |                         |                |
| Source Notes:              | Data for 2041+ escalate | ed at inflatio |

#### NOTES:

Please provide notes as to how this value relates to forward market prices. It can be expressed as a percentage of forward market prices, a set \$/MWh, or \$/ton. Please identify the units in the box to the left

Data for 2041+ escalated at inflation
PacifiCorp's 2019 IRP did not specifically identify a carbon emissions rate for market purchases.

HLH Carbon Cost (\$/MWh)

|      |             |                    |                    | HLH Carbon Cost (\$/MWh) | LLH Carbon Cost (\$/MWh | 1) |
|------|-------------|--------------------|--------------------|--------------------------|-------------------------|----|
|      |             |                    |                    | (OR % of HLH Price that  | (OR % of LLH Price that |    |
| Year | Date        | HLH Total (\$/MWh) | LLH Total (\$/MWh) | accounts for Carbon?)    | accounts for Carbon?)   |    |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  | 1 2/1/2021  |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  | 1 4/1/2021  |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  | 1 6/1/2021  |                    |                    |                          | 0                       | 0  |
| 202  | 1 7/1/2021  |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  | 2 4/1/2022  |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  |             |                    |                    |                          | 0                       | 0  |
| 202  | 4 12/1/2024 |                    |                    |                          | 0                       | 0  |

Alternative Submissions

Rationale for alternative submission:
Provide an overall rationale for providing alternative values in this box

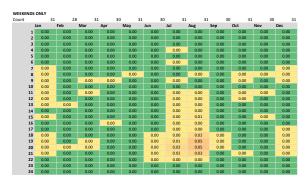
#### Loss of Load Probability Heat Map Input

NOTE: This is utilitized for generation defferals only.

Source and page #:
urce Link or File Name: 2019 IRP, Final CF Method results
Source Notes:

| Count     | 31   | 28   | 31   | 30   | 31   | 30   | 31   | 31   | 30   | 31   | 30   | 31   |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| Hr Ending | Jan  | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  |
| 1         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8         | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19        | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.05 | 0.17 | 0.00 | 0.00 | 0.00 | 0.01 |
| 20        | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.09 | 0.17 | 0.00 | 0.00 | 0.00 | 0.01 |
| 21        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 23        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 24        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| WEEKDAYS |      |        |      |      |      |      |      |      |      |      |      |      |
|----------|------|--------|------|------|------|------|------|------|------|------|------|------|
| Count    | 31   | Peb 28 |      |      |      |      |      |      |      |      |      |      |
|          | Jan  |        | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  |
| 1        |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2        |      |        |      |      |      |      |      |      |      |      |      |      |
| 3        |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4        |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5        |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6        |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7        |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8        |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9        |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10       |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11       |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12       |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13       | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14       |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15       |      | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16       | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17       | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18       | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19       | 0.01 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20       | 0.01 | 0.00   | 0.00 | 0.00 | 0.00 | 0.01 | 0.07 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21       | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22       | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 23       | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|          | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |



#### EXAMPLE

| Count     | 31   | 28   | 31   | 30   | 31   | 30   | 31   | 31   | 30   | 31   | 30   | 31   |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| Hr Ending | Jan  | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  |
| 1         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 23        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 24        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|           |      |      |      |      |      |      |      |      |      |      |      |      |

| Alternative | Rationale for alternative submission: |
|-------------|---------------------------------------|
|             | PacifiCorp 2019 IRP RPS results       |
| Submissions |                                       |

## **RPS Compliance Inputs IRP**

| Real or Nominal?          | Nominal   |   |
|---------------------------|---|---|
| Dollar Year:              |   |   |
| Source and Pg #:          | Figure 8.42   |   |
| Source Link or File Name: | 2019 IRP  |   |
|                           | California, Oregon, and Washington<br>preferred portfolio. While these re<br>cost-effective system resources an<br>nonetheless contribute to meeting<br>compliance is achieved through 20 | ewable portfolio standard (RPS) compliance forecast for<br>in after accounting for new renewable resources in the<br>sources are not included in the preferred portfolio as<br>d are not included to specifically meet RPS targets, they<br>RPS targets in PacifiCorp's western states. Oregon RPS<br>38 with the addition of new renewable resources and |
| Source Notes:             | transmission in the 2019 IRP prefer   | red portfolio.  |

| RPS Compliance Cost (\$/MWh) | Avoided RP | S Compliance Obligation (%) |
|------------------------------|------------|-----------------------------|
| 2021                         | 0          | 20%                         |
| 2022                         | 0          | 20%                         |
| 2023                         | 0          | 20%                         |
| 2024                         | 0          | 20%                         |
| 2025                         | 0          | 27%                         |
| 2026                         | 0          | 27%                         |
| 2027                         | 0          | 27%                         |
| 2028                         | 0          | 27%                         |
| 2029                         | 0          | 27%                         |
| 2030                         | 0          | 35%                         |
| 2031                         | 0          | 35%                         |
| 2032                         | 0          | 35%                         |
| 2033                         | 0          | 35%                         |
| 2034                         | 0          | 35%                         |
| 2035                         | 0          | 45%                         |
| 2036                         | 0          | 45%                         |
| 2037                         | 0          | 45%                         |
| 2038                         | 0          | 45%                         |
| 2039                         |            | 45%                         |
| 2040                         |            | 50%                         |
| 2041                         |            | 50%                         |
| 2042                         |            | 50%                         |
| 2043                         |            | 50%                         |
| 2044                         |            | 50%                         |
| 2045                         |            | 50%                         |
| 2046                         |            | 50%                         |
| 2047                         |            | 50%                         |
| 2048                         |            | 50%                         |
| 2049                         |            | 50%                         |
| 2050                         |            | 50%                         |

|                             | 2017 IRP EE Risk | Reduction Credit |           | 2017 IRP GHG Cost Estimate     |       | 2019 IRP Med CO2       | 2019 IRP E     | E Risk Reduct | ion Credit |
|-----------------------------|------------------|------------------|-----------|--------------------------------|-------|------------------------|----------------|---------------|------------|
|                             | Calculated by    | Levelized values |           |                                |       |                        |                | values by     |            |
|                             | IRP models       | by year          | Inflation | Carbon Price (\$/ton, nominal) | \$/ST | PAC Nom                | models         | values by     | Inflation  |
| 2017                        |                  | \$4.24           | 100%      | \$0.00                         | 7/31  | 1 AC NOM               | \$4.74         | ,             | 100%       |
| 2017                        |                  | \$4.33           | 102%      | \$0.00                         | 2018  |                        | \$4.74         |               | 102%       |
| 2019                        | •                | \$4.43           | 104%      | \$0.00                         | 2019  |                        | \$4.74         |               | 105%       |
| 2020                        | •                | \$4.53           | 107%      | \$0.00                         | 2020  |                        | \$4.74         |               | 107%       |
| 2020                        |                  | \$4.63           | 109%      | \$0.00                         | 2021  |                        | \$4.74         |               | 109%       |
| 2022                        | •                | \$4.73           | 112%      | \$0.00                         | 2022  |                        | \$4.74         |               | 112%       |
| 2023                        | •                | \$4.84           | 114%      | \$0.00                         | 2023  |                        | \$4.74         |               | 114%       |
| 2024                        |                  | \$4.94           | 117%      | \$0.00                         | 2024  |                        | \$4.74         |               | 117%       |
| 2025                        | •                | \$5.05           | 119%      | \$4.75                         | 2025  | 9.93                   | \$4.74         |               | 120%       |
| 2026                        |                  | \$5.03           | 122%      | \$6.68                         | 2026  |                        | \$4.74         |               | 122%       |
| 2027                        |                  | \$5.28           | 125%      | \$8.77                         | 2027  | 12.54                  | \$4.74         |               | 125%       |
| 2028                        |                  | \$5.40           | 127%      | \$10.90                        | 2028  | 14.09                  | \$4.74         |               | 128%       |
| 2029                        |                  | \$5.52           | 130%      | \$10.30                        | 2029  | 15.85                  | \$4.74         |               | 131%       |
| 2030                        |                  | \$5.64           | 133%      | \$26.02                        | 2030  | 17.83                  | \$4.74         |               | 134%       |
| 2030                        |                  | \$5.77           | 136%      | \$20.02                        | 2030  |                        | \$4.74         |               | 137%       |
| 2032                        |                  | \$5.89           | 139%      | \$29.59                        | 2032  | 22.58                  | \$4.74         |               | 140%       |
| 2032                        |                  | \$6.02           | 142%      | \$30.97                        | 2032  | 25.41                  | \$4.74         |               | 143%       |
| 2033                        |                  | \$6.16           | 145%      | \$32.12                        | 2034  | 28.59                  | \$4.74         |               | 147%       |
| 2035                        |                  | \$6.30           | 148%      | \$37.17                        | 2035  | 32.14                  | \$4.74         |               | 150%       |
| 2036                        |                  | \$6.43           | 152%      | \$38.02                        | 2036  |                        | \$4.74         |               | 153%       |
| 2037                        |                  | 70.43            | 152/0     | \$38.86 Escalated at inflation | 2037  | 40.66                  | у <b>ч.</b> /ч | Ç0.13         | 15570      |
| 2037                        |                  |                  |           | \$39.73                        | 2037  |                        |                |               |            |
| 2039                        |                  |                  |           | \$40.61                        | 2039  | 51.49                  |                |               |            |
| 2040                        |                  |                  |           | \$41.51                        | 2040  | 57.94                  |                |               |            |
| 2040                        |                  |                  |           | \$42.43                        | 2040  | 37.54                  |                |               |            |
| 2041                        |                  |                  |           | \$43.37                        |       |                        |                |               |            |
| 2042                        |                  |                  |           | 75.5/                          |       |                        |                |               |            |
| Nominal levelized 2017-2036 | \$5.03           | \$5.03           | 119%      |                                | Nomin | al levelized 2017-2030 | 6 \$4.74       | \$4.74        | 118%       |

| Distributi   | ion 12x24 Weighting                           |                           | Dist. 12<br>Hour  | 2x24 pr                                     | ofile                                       |  |  |  |  |  |   |  |  |  |  |  |  |   |   |  |  |  |  |  |  |  |
|--|---|---------------------------|---|---|---|--|--|--|--|--|---|--|--|--|--|--|--|---|---|--|--|--|--|--|--|--|
| Season   | Monthly Weight                                | Month                     | 1   | 2   | 3   | 4  | 5  | 6  | 7                                      | 8  | 9   | 10   | 11   | 12   | 13                                     | 14   | 15   | 16  | 17  | 18   | 19   | 20   | 21   | 22   | 23   | 24   |
| Winter   | 21%   | 1                         | 0%  | 0%  | 0%  | 0%   | 0%   | 0%   | 6%                                     | 12%  | 3%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%   | 0%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Winter   | 7%  | 2                         | 0%  | 0%  | 0%  | 0%   | 0%   | 0%   | 2%                                     | 4%   | 1%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%   | 0%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Winter   | 0%  | 3                         | 0%  | 0%  | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%   | 0%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Summer   | 0%  | 4                         | 0%  | 0%  | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%   | 0%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Summer   | 0%  | 5                         | 0%  | 0%  | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%   | 0%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Summer   | 5%  | 6                         | 0%  | 0%  | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%   | 1%  | 1%  | 1%   | 1%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Summer   | 37%   | 7                         | 0%  | 0%  | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 2%   | 8%  | 10%   | 10%  | 7%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Summer   | 15%   | 8                         | 0%  | 0%  | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 1%   | 3%  | 4%  | 4%   | 3%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Summer   | 0%  | 9                         | 0%  | 0%  | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%   | 0%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Summer   | 0%  | 10                        | 0%  | 0%  | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%   | 0%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Winter   | 3%  | 11                        | 0%  | 0%  | 0%  | 0%   | 0%   | 0%   | 1%                                     | 1%   | 0%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%   | 0%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Winter   | 13%   | 12                        | 0%  | 0%  | 0%  | 0%   | 0%   | 0%   | 4%                                     | 7%   | 2%  | 0%   | 0%   | 0%   | 0%                                     | 0%   | 0%   | 0%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
|  |   |                           |   |   |   |  |  |  |  |  |   |  |  |  |  |  |  |   |   |  |  |  |  |  |  |  |
| Transmis   | sion 12x24 Weighting                          |                           | Trans.<br>Hour  | 12x24                                       | orofile                                     |  |  |  |  |  |   |  |  |  |  |  |  |   |   |  |  |  |  |  |  |  |
| Transmis<br>Season   | ssion 12x24 Weighting  Monthly Weighting      |                           |   | 12x24 <sub> </sub>                          | orofile<br>3                                | 4  | 5  | 6  | 7                                      | 8  | 9   | 10   | 11   | 12   | 13                                     | 14   | 15   | 16  | 17  | 18   | 19   | 20   | 21   | 22   | 23   | 24   |
|  |   | •                         |   |   |   | 4 0%   | 5<br>0%                                      | 6  | 7 0%                                   | 8  | 9   | 10   | 11   | 12<br>0%                                     | 13                                     | 14   | 15<br>0%   | 16  | 17<br>0%                                      | 18   | 19   | 20   | 21   | 22<br>0%                                     | 23   | 24<br>0%                                     |
| Season   | Monthly Weighting                             | •                         | Hour<br>1   | 2   | 3   |  |  |  | 7<br>0%<br>0%                          |  | _   |  |  |  |  |  |  |   |   |  |  |  |  |  |  |  |
| Season<br>Winter   | Monthly Weighting                             | Month 1                   | Hour<br>1<br>0%   | 2 0%  | 3   | 0%   | 0%   | 0%   |  | 9%   | 10%   | 6%   | 0%   | 0%   | 0%                                     | 0%   | 0%   | 0%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Season<br>Winter<br>Winter   | Monthly Weighting 25% 8%                      | Month<br>1<br>2           | Hour<br>1<br>0%<br>0%                                     | 2<br>0%<br>0%                               | 3<br>0%<br>0%                               | 0%<br>0%                                     | 0%<br>0%                                     | 0%<br>0%                                     | 0%                                     | 9%<br>6%                                     | 10%<br>2%                                     | 6%<br>0%                                     | 0%<br>0%                                     | 0%<br>0%                                     | 0%<br>0%                               | 0%<br>0%                                     | 0%<br>0%   | 0%<br>0%                                      | 0%<br>0%                                      | 0%<br>0%   | 0%<br>0%                                     | 0%<br>0%                                     | 0%<br>0%                                     | 0%<br>0%                                     | 0%<br>0%                                     | 0%<br>0%                                     |
| Season<br>Winter<br>Winter<br>Winter   | Monthly Weighting 25% 8% 0%                   | Month 1 2 3               | Hour<br>1<br>0%<br>0%<br>0%                               | 2<br>0%<br>0%<br>0%                         | 3<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%                               | 0%<br>0%<br>0%                               | 0%<br>0%<br>0%                               | 0%<br>0%                               | 9%<br>6%<br>0%                               | 10%<br>2%<br>0%                               | 6%<br>0%<br>0%                               | 0%<br>0%<br>0%                               | 0%<br>0%<br>0%                               | 0%<br>0%<br>0%                         | 0%<br>0%<br>0%                               | 0%<br>0%<br>0%                                     | 0%<br>0%<br>0%                                | 0%<br>0%<br>0%                                | 0%<br>0%<br>0%                                     | 0%<br>0%<br>0%                               | 0%<br>0%<br>0%                               | 0%<br>0%<br>0%                               | 0%<br>0%<br>0%                               | 0%<br>0%<br>0%                               | 0%<br>0%<br>0%                               |
| Season<br>Winter<br>Winter<br>Winter<br>Summer   | Monthly Weighting 25% 8% 0% 0%                | Month 1 2 3 4             | Hour<br>1<br>0%<br>0%<br>0%<br>0%                         | 2<br>0%<br>0%<br>0%<br>0%                   | 3<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%                         | 9%<br>6%<br>0%<br>0%                         | 10%<br>2%<br>0%<br>0%                         | 6%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%                               | 0%<br>0%<br>0%<br>0%                          | 0%<br>0%<br>0%<br>0%                          | 0%<br>0%<br>0%<br>0%                               | 0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%                         |
| Season<br>Winter<br>Winter<br>Winter<br>Summer<br>Summer   | Monthly Weighting 25% 8% 0% 0% 0%             | Month  1 2 3 4 5          | Hour<br>1<br>0%<br>0%<br>0%<br>0%<br>0%                   | 2<br>0%<br>0%<br>0%<br>0%<br>0%             | 3<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%                   | 9%<br>6%<br>0%<br>0%<br>0%                   | 10%<br>2%<br>0%<br>0%<br>0%                   | 6%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%<br>0%                    | 0%<br>0%<br>0%<br>0%<br>0%                    | 0%<br>0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                   |
| Season<br>Winter<br>Winter<br>Winter<br>Summer<br>Summer<br>Summer                               | Monthly Weighting 25% 8% 0% 0% 0% 1%          | Month  1 2 3 4 5          | Hour<br>1<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 2<br>0%<br>0%<br>0%<br>0%<br>0%             | 3<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%             | 9%<br>6%<br>0%<br>0%<br>0%                   | 10%<br>2%<br>0%<br>0%<br>0%<br>0%             | 6%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%<br>0%                    | 0%<br>0%<br>0%<br>0%<br>0%                    | 0%<br>0%<br>0%<br>0%<br>0%                         | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             |
| Season<br>Winter<br>Winter<br>Winter<br>Summer<br>Summer<br>Summer<br>Summer                     | Monthly Weighting 25% 8% 0% 0% 0% 1% 37%      | Month  1 2 3 4 5 6 7      | Hour<br>1<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 2<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 3<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 9%<br>6%<br>0%<br>0%<br>0%<br>0%             | 10%<br>2%<br>0%<br>0%<br>0%<br>0%<br>0%       | 6%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>7%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>11%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>12%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>4%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 0%<br>0%<br>0%<br>0%<br>0%<br>0%             |
| Season<br>Winter<br>Winter<br>Winter<br>Summer<br>Summer<br>Summer<br>Summer                     | Monthly Weighting 25% 8% 0% 0% 1% 37% 11%     | Month  1 2 3 4 5 6 7 8    | Hour<br>1<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 2<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 3<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 9%<br>6%<br>0%<br>0%<br>0%<br>0%<br>0%       | 10%<br>2%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 6%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>7%<br>2%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>11%<br>5% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>12%<br>4% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>4%<br>1%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       |
| Season<br>Winter<br>Winter<br>Winter<br>Summer<br>Summer<br>Summer<br>Summer<br>Summer<br>Summer | Monthly Weighting 25% 8% 0% 0% 1% 37% 1114 0% | Month 1 2 3 4 5 6 6 7 8 9 | Hour<br>1<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 2<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 3<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 9%<br>6%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 10%<br>2%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 6%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>7%<br>2%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>11%<br>5% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>12%<br>4% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>4%<br>1%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% |