



1407 W. North Temple
Salt Lake City, Utah 84116

December 27, 2022

VIA ELECTRONIC FILING

Public Service Commission of Utah
Heber M. Wells Building, 4th Floor
160 East 300 South
Salt Lake City, UT 84114

Attn: Gary Widerburg
Commission Secretary

Re: **Docket 03-035-14 – Quarterly Compliance Filing – 2022.Q3 Avoided Cost Input Changes**
Docket 22-035-36 – 2022.Q3 Avoided Cost Input Changes Quarterly Compliance Filing

PacifiCorp (dba Rocky Mountain Power) hereby respectfully submits its quarterly Schedule 38 compliance filing.

Public Service Commission of Utah (Commission) orders dated October 31, 2005, and February 2, 2006, in Docket 03-035-14 require the Company to keep a record of any changes, including data inputs, made to the Proxy model and the Generation and Regulation Initiative Decision Tool (GRID) model used in calculating avoided costs. The orders further require the Company to notify the Commission and Division of Public Utilities (DPU) of updates made to the models used in the approved Proxy and Partial Displacement Differential Revenue Requirement (PDDRR) avoided cost methodologies. The Commission order dated June 9, 2015, in Docket 14-035-140 requires the Company to identify routine and non-routine updates or modeling changes. Non-routine updates will become effective in three weeks if the update is unchallenged by any party or upon resolution by settlement or Commission action if challenged by any party.

Routine Updates

Appendix A provides a summary of the assumptions used within the GRID model. The Company identifies the following routine updates to its avoided cost inputs since the previous filing:

1. **Official Forward Price Curve (OFPC)** – Update to prices dated September 30, 2022 (2209 OFPC).
2. **Generic Updates** – Update to various GRID model inputs, including Forced Outage rates
3. **Load Forecast Update** – Update to Company’s most recent load forecast dated May 27, 2022.

4. **Qualifying Facility (QF) Queue** – Update of signed contract queue and current potential QFs. The QF queue is decreased to stayed same at 492 MW nameplate in this filing. The potential queue was 497 MW nameplate in the 2022.Q2 filing.

Additional Details

Additional detail is provided below:

1. **Proxy / Partial Displacement Differential Revenue Requirement (PDDRR) Avoided Cost Methodology** – The proxy resources used in the PDDRR avoided cost methodology are consistent with the Company’s 2021 Integrated Resource Plan (IRP) Update filed with the Commission on March 31, 2022. The 2021 IRP Update preferred portfolio includes cost-effective solar with storage, wind, wind with storage, stand-alone storage and thermal resources. The thermal QF resource partially displaces summer and winter front office transactions (FOTs) during 2022-2030, and the Utah North non-emitting peaking resource in 2031. The tracking solar QF resource partially displaces summer and winter FOTs during 2022-2025 and the Borah solar with storage resource in 2026. The wind QF resource partially displaces summer and winter FOTs during 2022-2025 and a Portland North Coast wind resource in 2026.
2. **Impact to Avoided Cost Prices (\$/MWh)** – Provided as **Appendix B.1** is the \$/MWh impact of the above-mentioned updates on avoided costs, compared to the previous compliance filing.
 - a. Avoided costs presented in **Appendix B.1** were calculated assuming a 100 MW 100 percent capacity factor thermal QF resource.
 - b. Avoided costs presented in **Appendix B.2** were calculated assuming an 80 MW 32.2 percent capacity factor single-axis tracking solar QF resource.
 - c. Avoided costs presented in **Appendix B.3** were calculated assuming an 80 MW 29.5 percent capacity factor wind QF resource.
3. **Major Changes from the Prior Study** – Provided as **Appendix C** is a \$/MWh step impact study of the routine updates from the prior study. Also provided in **Appendix C** is the incremental impact of each change from the prior step.

Work Papers

The Company has also provided calculations with additional details on the following:

- Current QF queue and partial displacement adjusted for solar degradation; and
- FOT partial displacement

Public Service Commission of Utah

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It is respectfully requested that all formal correspondence and requests regarding this compliance filing be addressed to:

By E-Mail (preferred) : datarequest@pacificorp.com

By Regular Mail: Data Request Response Center
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825 NE Multnomah Street, Suite 2000
Portland, OR 97232

Informal inquiries may be made to Jana Saba at (801) 220-2823, or Dan MacNeil at (503) 813-5523.

Very truly yours,



Joelle Steward

Senior Vice President, Regulation and Customer & Community Solutions

cc: Service List (Docket No. 03-035-14)
 Service List (Docket No. 22-035-36)

ROCKY MOUNTAIN POWER
DESCRIPTION OF AVOIDED COST INPUT CHANGES
2022.Q3 – December 2022

Appendix A

PacifiCorp Avoided Cost Partial Displacement Differential Revenue Requirement (“PDDRR”) Model Updates through December 2022 Docket 22-035-36 / Docket 03-035-14

Assumptions that have changed since the 2022.Q2 compliance filing are in **bold and underline**.

GRID Scenario Study Period

- January 1, 2023 through December 31, 2037 - 15-year study.
- Avoided cost prices starting in January 2022.

Official Forward Price Curve (“OFPC”) (Gas and Electric Market Prices)

- **Updated to PacifiCorp’s September 30, 2022 OFPC (“2209 OFPC”)**
- Hourly Market Price Scalars consistent with 2021 Integrated Resource Plan (“IRP”)

Fuel Prices (Coal)

- Average and incremental coal costs consistent with 2021 Integrated Resource Plan (“IRP”).
- Coal burn expense reflects incremental coal costs and coal take or pay minimum burn levels.

IRP Resources

- 2021 IRP Update filed with the Public Service Commission of Utah (“UPSC”) on March 31, 2022.¹
- New solar, wind, battery storage, and thermal resources; as well as front office transactions (“FOT”), consistent with 2021 IRP Update.
- Existing plant retirements consistent with 2021 IRP Update.
- Transmission investment and capacity changes consistent with 2021 IRP Update (Table 1.2).

REC Ownership

Consistent with the Commission’s January 23, 2018 order in Docket No. 17-035-37, when a QF defers or avoids a renewable resource, the Company retains the renewable energy credits (“RECs”) on behalf of ratepayers. When a QF’s avoided capacity costs are not based on the costs of a renewable resource, the QF is entitled to the RECs associated with its output.

¹ Available online at:

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/integrated-resource-plan/2021_IRP_Update.pdf

Hydro Resources

- Hydro forecast prepared June 2022.
- 2021 hydro levels extended thereafter with known and measurable changes.
- Adjust Klamath dispatch to reflect current operating patterns.
- Update Mid-Columbia (“Mid-C”) generation forecast.

Discount Rate

- 6.88 percent discount rate - 2021 IRP
- Discount rate is consistent with the Commission’s order in Docket 11-035-T06.

Inflation Rates

- 2.155% percent inflation rate - 2021 IRP

Levelized Prices (Nominal) at 6.88 percent Discount Rate

- 15 years 2022 through 2036.
- Levelized prices are for illustrative purposes only.

Load Forecast (Retail)

- 20-year load forecast dated May 27, 2022.

Long-Term Contracts

- Long-term contracts which have prices that are indexed to market are consistent with the 2209 OFPC.
- Contracts are modeled based on 48 months ended December 2021.
- Qualifying Facility (QF) power purchase agreements (PPA) are assumed to terminate and not renew at the end of their current PPA term.
- Incorporates signed PPAs.

Market Capacity

- Capacity set at 48-month average of all short-term firm (“STF”) sales ended October 2022.
- Mid-C and Palo Verde (“PV”) markets uncapped.
- Additional heavy load hour (“HLH”) and light load hour (“LLH”) sales limited to historical 48-month average less monthly executed STF contracts as of December 31, 2021.

Potential Environmental Costs

- Potential environmental costs are excluded from fuel cost for net power costs (“NPC”) and plant commitment and dispatch decisions.

Regulating Margin

- Requirements are modeled based on the 2021 IRP Update.
- The Company's 2021 IRP Update included a study of wind and solar integration requirements and costs, and was used to develop a portfolio-specific reserve requirement. The resulting regulation reserve requirements from the 2021 IRP were incorporated in the GRID model. As a result, the cost of reserve requirements is incorporated in the net power cost result.

Contingency Reserve Calculation

- Reserve modeling reflects the North American Electric Reliability Corporation / Western Electricity Coordinating Council reliability standard BAL-002-WECC-2 – contingency reserves set to 3 percent of retail load plus 3 percent of generating resources.
- Hourly retail load reserve calculation through 2022.
- Typical week retail load reserve calculation thereafter.

STF Transactions

- Executed STF contracts as of October 2022.

Size of the Avoided Cost Resource

- The avoided cost thermal resource is 100 megawatts (“MW”) with a 100 percent capacity factor and is located in the Utah North transmission bubble.
- The avoided cost tracking solar resource is 80 MW with a 32.2 percent capacity factor and is located in the Utah North transmission bubble.
- The avoided cost wind resource is 80 MW with a 29.5 percent capacity factor and is located in the Utah North transmission bubble.

Thermal Resources

- Thermal resource operating characteristics updated to be consistent with current Company official characteristics.
- Forced outage reflects 48 months ended June 2022. Planned outages are based on 48 months ended June 2022. Heat rates incorporate historical data plus assumptions from the 2021 IRP Update.

Wind and Solar Resources

- Existing wind and solar generation profiles modeled using generation shapes derived from 2018 actuals as modeled in the 2021 IRP.^{1,2}

- Wind and solar generation shaped to hourly using generation shapes derived from 2018 actuals as modeled in the 2021 IRP.^{2,3}
- Non-PTC wind and solar resources can be curtailed on an economic basis within the GRID model.⁴
- Resource-specific capacity contribution values are calculated for proxy resources and QFs, based on their expected output and the final loss of load probability results in the 2021 IRP (2021 IRP, Vol II, Appendix K: Capacity Contribution).

Transmission

- Short-term transmission modeled based on 48 months ended December 2021.
- Transmission investment and capacity changes consistent with 2021 IRP Update.

² Starting in the 2013.Q4 Compliance filing, wind generation has been modeled hourly using actual generation shape. Potential resources were also modeled hourly when data was provided by the project developer. Since the 2016.Q4 compliance filing, all potential wind generation profiles have been shaped to an hourly profile using the hourly shape of nearby wind resources. Shaping does not alter the 12x24 wind generation profile. This change was made to make potential wind modeling more consistent with existing wind modeling. The hourly shaping of solar generation was identified as a non-routine change in the 2018.Q2 compliance filing.

³ In the 2021 IRP, wind and solar profiles were aligned with load based on the historical relationship, see 2021 IRP, Vol II, Appendix K: Capacity Contribution.

⁴ Wind dispatch was identified as a non-routine change in the 2018.Q2 compliance filing.

IRP Partial Displacements (This Filing)

Provided in the table below are the Contracts that have executed a PPA or are actively negotiating for a PPA. Signed resources are new and were not included in the 2021 IRP.

Contracts Queue						
No.	Signed Contracts	Partial Displacement	Name plate	CF	Capacity Contribution	Start Date
1	Sunnyside Solar QF	0.4	4.99	32.1%	9.0%	2023 09 30
2	Schumann Wind NonRenewable	2.63	8.00	37.0%	32.9%	2022 02 01
3	Simplot Phosphates	0.0	13.3	85.0%	0.0%	2023 01 01
4	Kennecott Smelter Non Firm	0.0	31.8	58.2%	0.0%	2023 01 01
5	Kennecott Refinery Non Firm	0.0	6.2	85.0%	0.0%	2023 01 01
6	Tesoro Non Firm	0.0	25.0	85.0%	0.0%	2023 01 01
7	Exxon Mobil	0.0	98.0	75.0%	0.0%	2023 01 01
Total Signed MW		3.08	187.29			
No.	Potential QF Contracts	Partial Displacement	Name plate	CF	Capacity Contribution	Start Date
1	QF - 663 - WA - Solar	0.40	20.00	18.3%	2.0%	2026 01 01
2	QF - 665 - OR - Solar	5.21	20.00	19.4%	26.1%	2026 01 01
3	QF - 657 - UT - Solar	10.80	60.00	25.7%	18.0%	2024 01 01
4	QF - 666 - WY - Solar	11.05	74.90	29.7%	14.8%	2024 12 01
5	QF - 667 - OR - Solar	7.55	50.00	31.9%	15.1%	2024 07 01
6	QF - 658 - UT - Solar	12.05	80.00	29.9%	15.1%	2025 12 01
Total Potential MW		47.06	304.90			
Total Partial Displacement		50.14	492.19			
7	Utah 2022.Q3	100.00	100.00	100.0%	100.0%	2022 01 01
Partial Displacement after QF		150.14	592.19			

After accounting for the QF queue, the capacity displacement associated with the proxy avoided cost resources in this filing were as follows:

- Thermal: Incremental Thermal QF resource displaces FOTs for 2022-2032 and Utah North non-emitting Peaker resource in 2031.
- Tracking Solar: **57** nameplate MW of solar resources are displaced by the QF queue. After degradation and accounting for capacity contribution, the incremental solar QF displaces 13 MW of solar with storage resource located in Borah in 2026 from 2021 IRP Update preferred portfolio, along with associated transmission, specifically the Boardman-to-Hemingway project. The Company retains 100% of the REC's starting in 2026.
- Wind: 6 MW of wind resources are displaced by the QF queue. The wind QF displaces the 2026 wind resource located in Portland North Coast from 2021 IRP Update preferred portfolio. The Company retains 100% of the REC's starting in 2026.

Year	IRP Additions (Nameplate MW)						Base Case Displacement (Nameplate MW)				
	IRP Thermal	IRP Std Alone Battery	IRP Solar	IRP Wind	IRP FOT Summer	IRP FOT Winter	Thermal	Solar	Wind	FOT Summer	FOT Winter
2022	-	-	-	-	1,545	603	-	-	-	3	3
2023	-	-	-	-	1,428	558	-	-	-	3	3
2024	-	-	-	-	1,745	625	-	-	-	21	21
2025	-	-	-	-	415	-	-	-	-	32	-
2026	-	200	600	545	-	-	-	57	6	-	-
2027	-	200	600	545	-	-	-	57	6	-	-
2028	500	200	683	800	-	-	-	57	6	-	-
2029	500	700	843	1,080	-	-	-	57	6	-	-
2030	500	700	1,320	1,080	-	-	-	57	6	-	-
2031	912	700	1,946	1,080	-	-	-	57	6	-	-
2032	912	700	3,046	1,080	-	-	-	57	6	-	-
2033	912	700	3,046	1,080	-	-	-	57	6	-	-
2034	912	700	3,046	1,080	-	-	-	57	6	-	-
2035	912	700	3,046	1,080	-	-	-	57	6	-	-
2036	912	700	3,046	1,080	-	-	-	57	6	-	-
2037	1,324	700	3,748	1,236	-	-	-	57	6	-	-
2038	2,737	700	3,748	1,686	-	-	-	57	6	-	-
2039	2,737	700	3,748	1,686	-	-	-	57	6	-	-
2040	2,737	700	3,748	1,954	-	418	-	57	6	-	-
2041	2,737	700	3,748	1,954	-	-	-	57	6	-	-

IRP Partial Displacements (Previous Filing)

Total partial displacement was 497 MW in the base case and 597 MW in the avoided cost case as shown in the table below, adjusted for solar degradation:

Contracts Queue						
No.	Signed Contracts	Partial Displacement	Name plate	CF	Capacity Contribution	Start Date
1	Sunnyside Solar QF	0.4	4.99	32.1%	9.0%	2023 09 30
2	Schumann Wind NonRenewable	2.63	8.00	37.0%	32.9%	2022 02 01
Total Signed MW		3.08	12.99			
No.	Potential QF Contracts	Partial Displacement	Name plate	CF	Capacity Contribution	Start Date
1	QF - 640 - WY - Wind	12.81	79.80	44.2%	16.1%	2024 08 01
2	QF - 658 - UT - Solar	12.05	80.00	29.9%	15.1%	2025 08 01
3	QF - 526 - WY - Gas	0.00	13.30	85.0%	0.0%	2023 01 01
4	QF - 661 - UT - Solar	7.59	50.00	29.2%	15.2%	2025 08 01
5	QF - 433 - UT - Gas	0.00	31.80	58.2%	0.0%	2023 01 01
6	QF - 434 - UT - Gas	0.00	6.20	85.0%	0.0%	2023 01 01
7	QF - 435 - UT - Gas	0.00	25.00	85.0%	0.0%	2023 01 01
8	QF - 999 - WY - Gas	0.00	98.00	75.0%	0.0%	2023 01 01
9	QF - 663 - WA - Solar	4.91	20.00	18.3%	24.6%	2026 01 01
10	QF - 665 - OR - Solar	5.21	20.00	19.4%	26.1%	2026 01 01
11	QF - 657 - UT - Solar	10.80	60.00	25.7%	18.0%	2024 12 01
Total Potential MW		53.37	484.10			
Total Partial Displacement		56.45	497.09			
12	Utah 2022.Q2	100.00	100.00	100.0%	100.0%	2022 01 01
Partial Displacement after QF		156.45	597.09			

ROCKY MOUNTAIN POWER

UPDATE IMPACT – UPDATED AVOIDED COST STUDY

2022.Q3 – DECEMBER 2022

Appendix B.1
Avoided Cost Prices \$/MWh
Utah 2022.Q3 Sch 38

Year	Thermal-Defer 2031			Thermal-Defer 2031			Difference	Difference	Difference
	NonEmitPeaker UT 2022.Q3 100% CF (2)	Solar Tracking UT 2022.Q3 32.25% CF (2)	Wind UT 2022.Q3 29.5% CF (2)	Thermal UT 2022.Q2 100% CF (2)	Solar Tracking UT 2022.Q2 32.25% CF (2)	Wind UT 2022.Q2 29.5% CF (2)			
2023	\$57.75	\$33.74	\$49.25	\$43.68	\$26.88	\$38.11	\$14.07	\$6.86	\$11.14
2024	\$62.71	\$35.74	\$55.71	\$51.04	\$29.40	\$43.96	\$11.67	\$6.35	\$11.75
2025	\$46.95	\$24.30	\$41.17	\$35.98	\$19.08	\$30.97	\$10.97	\$5.22	\$10.19
2026	\$50.15	\$30.90	\$35.36	\$31.23	\$25.64	\$31.89	\$18.92	\$5.26	\$3.47
2027	\$46.05	\$30.25	\$33.80	\$30.18	\$26.33	\$32.54	\$15.86	\$3.92	\$1.26
2028	\$44.74	\$31.24	\$33.52	\$31.52	\$27.51	\$33.67	\$13.22	\$3.73	(\$0.16)
2029	\$45.05	\$33.41	\$35.07	\$33.09	\$29.78	\$34.87	\$11.96	\$3.63	\$0.20
2030	\$41.25	\$33.11	\$34.66	\$32.57	\$29.57	\$35.10	\$8.68	\$3.54	(\$0.44)
2031	\$48.39	\$32.30	\$35.27	\$42.70	\$30.55	\$36.45	\$5.69	\$1.75	(\$1.17)
2032	\$47.71	\$28.03	\$33.17	\$41.92	\$26.16	\$34.85	\$5.79	\$1.87	(\$1.68)
2033	\$47.83	\$32.44	\$35.06	\$43.79	\$30.45	\$36.66	\$4.04	\$1.99	(\$1.60)
2034	\$46.35	\$32.60	\$34.76	\$45.63	\$31.60	\$38.08	\$0.72	\$0.99	(\$3.32)
2035	\$47.95	\$33.63	\$35.70	\$47.00	\$32.55	\$38.87	\$0.95	\$1.08	(\$3.17)
2036	\$50.45	\$36.73	\$52.46	\$48.81	\$35.60	\$56.11	\$1.64	\$1.14	(\$3.65)
2037	\$58.31	\$37.45	\$53.16	\$58.59	\$37.89	\$59.29	(\$0.28)	(\$0.44)	(\$6.13)

15-Year Levelized Prices (Nominal) @ 6.88% Discount Rate (1) (3)										
2023-2037	\$/MWh	\$49.82	\$32.01	\$40.18	\$39.37	\$27.77	\$36.52	\$10.45	\$4.24	\$3.66
								26.5%	15.3%	10.0%

Footnotes:

- (1) Discount Rate - 2021 IRP
- (2) Total Avoided Costs with Capacity, based on stated CF
- (3) 15-Years: 2023 - 2037, levelized monthly

Table 1
Avoided Cost Prices
Utah 2022.Q3 - 100.0 MW and 100.0% CF

Year	Capacity Price \$/kW-yr	Energy Only Price \$/MWh ⁽²⁾	Total Price @ 100.0% Capacity Factor \$/MWh
2023	\$0.00	\$57.75	\$57.75
2024	\$0.00	\$62.71	\$62.71
2025	\$0.00	\$46.95	\$46.95
2026	\$0.00	\$50.15	\$50.15
2027	\$0.00	\$46.05	\$46.05
2028	\$0.00	\$44.74	\$44.74
2029	\$0.00	\$45.05	\$45.05
2030	\$0.00	\$41.25	\$41.25
2031	\$119.29	\$34.77	\$48.39
2032	\$121.85	\$33.84	\$47.71
2033	\$124.48	\$33.62	\$47.83
2034	\$127.16	\$31.83	\$46.35
2035	\$129.90	\$33.12	\$47.95
2036	\$132.70	\$35.35	\$50.45
2037	\$135.56	\$42.84	\$58.31
2038	\$138.47	\$43.63	\$59.43

15 Year

Levelized Prices (Nominal) @ 6.88% Discount Rate (1) (3)

\$/kW	\$43.80		
\$/MWh		\$44.82	\$49.82

Table 2
Avoided Energy Costs - Scheduled Hours (\$/MWh)
Utah 2022.Q3 - 100.0 MW and 100.0% CF

Year	Annual	Winter Season					Summer Season				Winter Season		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Energy Only													
2023	57.75	90.36	49.05	36.03	32.92	26.97	36.27	136.24	76.27	60.51	50.21	44.50	50.97
2024	62.71	80.56	56.64	48.04	35.52	30.12	37.15	133.67	94.66	75.25	50.25	49.83	58.69
2025	46.95	32.11	38.06	34.71	25.16	25.24	28.27	110.49	80.56	69.15	37.20	37.53	43.16
2026	50.15	52.21	51.21	39.45	28.84	26.85	32.97	78.66	86.02	68.79	43.34	47.28	45.58
2027	46.05	46.22	49.99	36.08	30.43	26.07	34.93	63.13	74.41	55.81	43.97	46.82	44.57
2028	44.74	43.45	42.93	35.82	29.51	24.89	33.74	64.80	70.97	55.09	43.59	45.47	45.97
2029	45.05	44.38	51.64	35.28	31.32	24.59	32.20	63.99	69.27	54.65	41.98	45.76	45.65
2030	41.25	40.65	43.13	31.73	27.85	21.86	28.33	59.13	64.37	54.36	38.52	43.25	41.68
2031	34.77	28.17	32.71	29.48	24.04	19.75	26.56	58.09	61.87	39.35	29.88	33.72	32.89
2032	33.84	27.65	32.74	27.10	20.67	16.91	24.73	59.52	64.23	36.96	29.58	33.78	31.48
2033	33.62	25.99	33.16	24.90	20.72	17.28	24.59	58.06	66.12	36.68	30.08	35.71	29.57
2034	31.83	24.16	29.97	23.75	20.60	16.71	23.34	56.63	63.75	35.58	27.39	32.28	27.18
2035	33.12	25.07	30.98	25.65	21.16	17.39	24.55	60.10	64.70	37.07	28.72	33.10	28.24
2036	35.35	26.13	30.42	25.83	22.77	18.71	26.56	63.86	72.08	42.92	30.65	34.20	29.22
2037	42.84	36.44	38.70	26.56	25.37	19.45	27.43	68.74	82.39	63.69	36.13	44.68	43.76
2038	43.63	36.20	39.08	26.87	24.82	18.42	26.40	68.01	80.30	62.01	36.18	46.53	57.78
2039	43.41	37.14	38.14	27.07	24.62	19.11	27.08	71.05	82.99	62.52	36.84	46.97	46.46
2040	45.00	42.68	38.91	29.38	25.10	20.01	26.85	75.31	79.76	65.42	38.14	48.13	49.45

Table 3
2021 IRP Update Non Emitting UTN Peaker Resource Costs
Non Emitting - 206 MW- East Side Resource (5,050')

Year	Estimated Capital Cost	Capital Cost at Real Levelized Rate	Network Upgrade	Fixed O&M	Variable O&M	Total O&M at Expected CF	Total Resource Fixed Costs	Fuel Cost	Total Resource Energy Cost	Total Resource Costs	Total Fixed Cost
	\$/kW	\$/kW-yr	\$/kW-yr	\$/kW-yr	\$/MWh	\$/kW-yr	\$/kW-yr	\$/MMBtu	\$/MWh	\$/MWh	\$/kW-yr
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(i)	(j)

Non Emitting - 206 MW- East Side Resource (5,050')

2020						\$ 21.294		\$ 26.72			
2021						\$21.75		\$27.30			
2022						\$22.22		\$27.89			
2023						\$22.70		\$28.49			
2024						\$23.19		\$29.10			
2025						\$23.69		\$29.73			
2026						\$24.20		\$30.37			
2027						\$24.72		\$31.02			
2028						\$25.25		\$31.69			
2029						\$25.79		\$32.37			
2030						\$26.35		\$33.07			
2031	\$1,319.93	\$98.96	12.46	\$0.00	\$26.92	\$77.82	\$189.24	\$33.78	\$335.64	\$401.10	\$111.42
2032		\$101.09	\$12.72	\$0.00	\$27.50	\$79.50	\$193.31	\$34.51	\$342.89	\$409.76	\$113.81
2033		\$103.27	\$12.99	\$0.00	\$28.09	\$81.20	\$197.46	\$35.25	\$350.24	\$418.55	\$116.26
2034		\$105.50	\$13.27	\$0.00	\$28.70	\$82.97	\$201.74	\$36.01	\$357.80	\$427.59	\$118.77
2035		\$107.77	\$13.56	\$0.00	\$29.32	\$84.76	\$206.09	\$36.79	\$365.55	\$436.84	\$121.33
2036		\$110.09	\$13.85	\$0.00	\$29.95	\$86.58	\$210.52	\$37.58	\$373.39	\$446.21	\$123.94
2037		\$112.46	\$14.15	\$0.00	\$30.60	\$88.46	\$215.07	\$38.39	\$381.44	\$455.84	\$126.61
2038		\$114.88	\$14.45	\$0.00	\$31.26	\$90.37	\$219.70	\$39.22	\$389.69	\$465.69	\$129.33
2039		\$117.36	\$14.76	\$0.00	\$31.93	\$92.30	\$224.42	\$40.07	\$398.14	\$475.77	\$132.12
2040		\$119.89	\$15.08	\$0.00	\$32.62	\$94.30	\$229.27	\$40.93	\$406.68	\$485.99	\$134.97
2041		\$122.47	\$15.40	\$0.00	\$33.32	\$96.32	\$234.19	\$41.81	\$415.42	\$496.43	\$137.87
2042		\$125.11	\$15.73	\$0.00	\$34.04	\$98.40	\$239.24	\$42.71	\$424.37	\$507.13	\$140.84

Sources, Inputs and Assumptions

Source: (a)(c)(d)	Plant Costs - 2021 IRP - Table 7.1 & 7.2
(b)	= (a) x 0.0749741404851062
(f)	= (e) x (8.76 x 33.0%) + (d)
(g)	= (b) + (f)
(h)	Table 4 - Burnertip Natural Gas Price Forecast
(i)	= 9,936 MMBtu/MWH x \$/MMBtu
(i)	= (g) / (8.76 x 'Capacity Factor') + (i)

Table 3
2021 IRP Update Non Emitting UTN Peaker Resource Costs
Non Emitting - 206 MW- East Side Resource (5,050')

Non Emitting - 206 MW- East Side Resource (5,050')

CCCT Statistics	MW	Percent	Cap Cost	Fixed
SCCT Dry "F" - Turbine	206	100.0%	\$1,320	\$0.00
	<u>-</u>	<u>0.0%</u>	<u>\$0</u>	<u>\$0.00</u>
Capacity Weighted	206	100.0%	\$1,320	\$0.00

CCCT Statistics	MW	CF	aMW	Percent	Variable	Heat Rate
SCCT Dry "F" - Turbine	206	33.0%	68.0	100.0%	\$21.29	9,936
	<u>-</u>	<u>0.0%</u>	<u>-</u>	<u>0.0%</u>	<u>-</u>	<u>-</u>
Energy Weighted	206	33.0%	68.0	100.0%	\$21.29	9,936

Rounded

SCCT	Duct Firing	Plant Costs - 2021 IRP - Table 7.1 & 7.2
	206	MW Plant Capacity
2031 \$	\$1,320	Plant Capacity Cost
	\$0.00	Fixed O&M & Capitalized O&M
	<u>\$0.00</u>	Fixed Pipeline
2020 \$	\$0.00	Fixed O&M Including Fixed Pipeline & Capitalized O&M (\$/kW-Yr)
2020 \$	\$ 21.29	Variable O&M Costs & Capitalized Variable O&M (\$/MWh)
	9,936	Heat Rate in btu/kWh
	7.497%	Payment Factor
	33%	Capacity Factor
	33.0%	Energy Weighted Capacity Factor
2031 \$	12.46	Network Upgr Utah N, Transmission Integration
	26.72	Fuel Cost (\$/mmBtu)

Table 4
Burnertip Natural Gas Price Forecast
Utah 2022.Q3 - 100.0 MW and 100.0% CF

Year	PacifiCorp			
	Delivered IRP - Utah Greenfield Fuel Cost	Delivered Naughton Fuel Cost	Delivered IRP West Side Fuel Cost	Delivered IRP - Wyo NE Fuel Cost
2019	\$2.42	\$2.43	\$4.31	\$2.09
2020	\$1.98	\$1.99	\$2.17	\$1.79
2021	\$4.18	\$4.15	\$4.03	\$6.38
2022	\$6.43	\$6.32	\$6.27	\$6.20
2023	\$5.49	\$5.45	\$4.59	\$5.16
2024	\$4.64	\$4.61	\$3.96	\$4.45
2025	\$4.40	\$4.37	\$3.95	\$4.34
2026	\$4.55	\$4.51	\$4.58	\$4.49
2027	\$4.64	\$4.60	\$5.08	\$4.58
2028	\$4.64	\$4.60	\$5.09	\$4.58
2029	\$4.71	\$4.67	\$5.18	\$4.65
2030	\$4.85	\$4.81	\$5.34	\$4.79
2031	\$4.98	\$4.94	\$5.47	\$4.91
2032	\$5.35	\$5.30	\$5.83	\$5.28
2033	\$5.63	\$5.58	\$6.11	\$5.56
2034	\$5.71	\$5.66	\$6.20	\$5.64
2035	\$5.80	\$5.75	\$6.29	\$5.73
2036	\$5.74	\$5.68	\$6.25	\$5.67
2037	\$5.99	\$5.93	\$6.49	\$5.91
2038	\$6.26	\$6.19	\$6.78	\$6.18
2039	\$6.55	\$6.48	\$7.08	\$6.47
2040	\$6.68	\$6.61	\$7.23	\$6.60

Official Forward Price Curve Forecast dated Sep 30, 2022

Appendix B.1
Avoided Cost Prices \$/MWh
Utah 2022.Q3 Sch 38

Year	Thermal-Defer 2031			Thermal-Defer 2031			Difference	Difference	Difference
	NonEmitPeaker UT 2022.Q3 100% CF (2)	Solar Tracking UT 2022.Q3 32.25% CF (2)	Wind UT 2022.Q3 29.5% CF (2)	Thermal UT 2022.Q2 100% CF (2)	Solar Tracking UT 2022.Q2 32.25% CF (2)	Wind UT 2022.Q2 29.5% CF (2)			
2023	\$57.75	\$33.74	\$49.25	\$43.68	\$26.88	\$38.11	\$14.07	\$6.86	\$11.14
2024	\$62.71	\$35.74	\$55.71	\$51.04	\$29.40	\$43.96	\$11.67	\$6.35	\$11.75
2025	\$46.95	\$24.30	\$41.17	\$35.98	\$19.08	\$30.97	\$10.97	\$5.22	\$10.19
2026	\$50.15	\$30.90	\$35.36	\$31.23	\$25.64	\$31.89	\$18.92	\$5.26	\$3.47
2027	\$46.05	\$30.25	\$33.80	\$30.18	\$26.33	\$32.54	\$15.86	\$3.92	\$1.26
2028	\$44.74	\$31.24	\$33.52	\$31.52	\$27.51	\$33.67	\$13.22	\$3.73	(\$0.16)
2029	\$45.05	\$33.41	\$35.07	\$33.09	\$29.78	\$34.87	\$11.96	\$3.63	\$0.20
2030	\$41.25	\$33.11	\$34.66	\$32.57	\$29.57	\$35.10	\$8.68	\$3.54	(\$0.44)
2031	\$48.39	\$32.30	\$35.27	\$42.70	\$30.55	\$36.45	\$5.69	\$1.75	(\$1.17)
2032	\$47.71	\$28.03	\$33.17	\$41.92	\$26.16	\$34.85	\$5.79	\$1.87	(\$1.68)
2033	\$47.83	\$32.44	\$35.06	\$43.79	\$30.45	\$36.66	\$4.04	\$1.99	(\$1.60)
2034	\$46.35	\$32.60	\$34.76	\$45.63	\$31.60	\$38.08	\$0.72	\$0.99	(\$3.32)
2035	\$47.95	\$33.63	\$35.70	\$47.00	\$32.55	\$38.87	\$0.95	\$1.08	(\$3.17)
2036	\$50.45	\$36.73	\$52.46	\$48.81	\$35.60	\$56.11	\$1.64	\$1.14	(\$3.65)
2037	\$58.31	\$37.45	\$53.16	\$58.59	\$37.89	\$59.29	(\$0.28)	(\$0.44)	(\$6.13)

15-Year Levelized Prices (Nominal) @ 6.88% Discount Rate (1) (3)										
2023-2037	\$/MWh	\$49.82	\$32.01	\$40.18	\$39.37	\$27.77	\$36.52	\$10.45	\$4.24	\$3.66
								26.5%	15.3%	10.0%

Footnotes:

- (1) Discount Rate - 2021 IRP
- (2) Total Avoided Costs with Capacity, based on stated CF
- (3) 15-Years: 2023 - 2037, levelized monthly

Table 1
Avoided Cost Prices
Utah 2022.Q3_Solar - 80.0 MW and 32.1% CF

	Total Price @		
Year	Capacity Price \$/kW-yr	Energy Only Price \$/MWh ⁽²⁾	32.1% Capacity Factor \$/MWh
2023	\$0.00	\$33.74	\$33.74
2024	\$0.00	\$35.74	\$35.74
2025	\$0.00	\$24.30	\$24.30
2026	\$39.69	\$16.56	\$30.90
2027	\$40.55	\$15.53	\$30.25
2028	\$41.42	\$16.17	\$31.24
2029	\$42.31	\$17.89	\$33.41
2030	\$43.22	\$17.18	\$33.11
2031	\$44.16	\$15.95	\$32.30
2032	\$45.11	\$11.29	\$28.03
2033	\$46.08	\$15.20	\$32.44
2034	\$47.07	\$14.90	\$32.60
2035	\$48.09	\$15.46	\$33.63
2036	\$49.12	\$18.13	\$36.73
2037	\$50.18	\$18.29	\$37.45
2038	\$51.26	\$16.47	\$36.14

15 Year

Levelized Prices (Nominal) @ 6.88% Discount Rate (1) (3)

\$/kW	\$32.28		
\$/MWh		\$20.52	\$32.01

Table 2
Avoided Energy Costs - Scheduled Hours (\$/MWh)
Utah 2022.Q3_Solar - 80.0 MW and 32.1% CF

Year	Annual	Winter Season					Summer Season				Winter Season		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Energy Only													
2023	33.74	52.57	25.23	19.79	20.22	20.26	25.91	78.14	49.60	27.88	23.31	21.75	24.91
2024	35.74	40.03	24.92	23.63	21.18	19.45	25.48	82.37	56.01	32.34	27.25	26.37	33.35
2025	24.30	14.62	17.26	14.97	12.88	14.14	19.03	60.25	42.27	22.62	16.03	16.08	20.64
2026	16.56	19.76	9.88	12.26	8.39	10.04	15.68	33.62	27.59	14.52	13.69	12.00	10.85
2027	15.53	17.94	7.31	11.41	9.21	10.44	16.08	29.32	25.48	14.18	14.04	11.45	7.20
2028	16.17	14.19	4.27	11.85	8.00	10.81	16.33	32.00	31.98	16.91	15.58	8.24	4.00
2029	17.89	17.18	5.56	11.58	10.76	12.70	17.22	31.21	34.11	16.52	18.84	14.68	8.35
2030	17.18	15.09	4.48	10.81	9.62	11.30	14.77	29.75	33.48	19.41	18.15	17.31	6.38
2031	15.95	9.68	3.93	10.71	9.66	10.87	14.30	28.65	32.58	17.55	13.99	13.92	9.53
2032	11.29	3.35	0.82	6.60	5.00	6.17	11.58	27.30	26.21	10.03	7.70	10.07	3.64
2033	15.20	8.34	3.39	7.70	8.13	8.49	13.12	29.00	32.24	17.31	13.70	17.86	8.55
2034	14.90	6.68	1.86	8.47	8.28	9.22	13.36	29.11	33.12	16.88	12.28	15.43	5.58
2035	15.46	7.34	2.19	8.65	8.72	8.57	13.47	31.68	32.19	17.47	14.50	16.14	6.64
2036	18.13	9.04	2.96	9.99	10.33	10.97	14.52	34.70	38.84	26.02	16.43	16.11	4.66
2037	18.29	5.94	(1.90)	7.61	9.76	10.08	14.36	38.58	45.17	28.21	14.42	15.86	(0.30)
2038	16.47	3.79	(2.65)	6.74	6.93	7.46	12.61	36.91	41.22	26.77	13.57	16.29	(1.59)
2039	17.36	4.54	(3.96)	6.08	7.83	8.59	13.48	39.51	45.50	25.44	14.16	16.30	(1.56)
2040	19.50	14.73	1.32	9.83	6.72	8.57	13.35	41.88	46.04	29.73	16.14	17.26	3.59

Table 3
2021 IRP Update Borah Solar with Storage
28% Capacity Factor

Year	Estimated Capital Cost \$/kW (a)	Fixed Capital Cost at Real Levelized Rate \$/kW-yr (b)	Fixed O&M \$/kW-yr (c)	Network Upgrade \$/kW-yr (d)	Fixed Costs \$/MWh (e)	Variable O&M \$/MWh (f)	Total Resource Cost \$/MWh (g)	Total Resource Costs \$/kW-yr (h)	Total Fixed Cost \$/kW-yr (i)
2016									
2017									
2018									\$0.00
2019									\$0.00
2020									\$0.00
2021									\$0.00
2022									\$0.00
2023									\$0.00
2024									\$0.00
2025									\$0.00
2026	\$2,696	\$146.08	\$37.57		\$75.14		\$75.14	\$183.64	\$183.64
2027		\$149.23	\$38.38		\$76.76		\$76.76	\$187.61	\$187.61
2028		\$152.45	\$39.21		\$78.42		\$78.42	\$191.66	\$191.66
2029		\$155.74	\$40.05		\$80.11		\$80.11	\$195.79	\$195.79
2030		\$159.10	\$40.91		\$81.84		\$81.84	\$200.01	\$200.01
2031		\$162.53	\$41.79		\$83.60		\$83.60	\$204.32	\$204.32
2032		\$166.03	\$42.69		\$85.40		\$85.40	\$208.72	\$208.72
2033		\$169.61	\$43.61		\$87.24		\$87.24	\$213.22	\$213.22
2034		\$173.27	\$44.55		\$89.12		\$89.12	\$217.82	\$217.82
2035		\$177.00	\$45.51		\$91.04		\$91.04	\$222.51	\$222.51
2036		\$180.81	\$46.49		\$93.00		\$93.00	\$227.30	\$227.30
2037		\$184.71	\$47.49		\$95.01		\$95.01	\$232.20	\$232.20
2038		\$188.69	\$48.51		\$97.05		\$97.05	\$237.20	\$237.20
2039		\$192.76	\$49.56		\$99.15		\$99.15	\$242.32	\$242.32
2040		\$196.91	\$50.63		\$101.28		\$101.28	\$247.54	\$247.54
2041		\$201.15	\$51.72		\$103.46		\$103.46	\$252.87	\$252.87
2042		\$205.48	\$52.83		\$105.69		\$105.69	\$258.31	\$258.31
2043		\$209.91	\$53.97		\$107.97		\$107.97	\$263.88	\$263.88

2021 IRP Update Borah Solar with Storage - 28% Capacity Factor

Sources, Inputs and Assumptions

Source:	(c)(f)	Plant Costs - 2021 IRP Update - Table 7.1 & 7.2
	(a)	Plant capacity cost
	(b)	= (a) x 0.0541878056575824
	(d)	= ((b) + (c)) / (8.76 x 27.9%)
	(g)	= (e) + (f)
	(h)	Plant Costs - 2021 IRP Update - Table 7.1 & 7.2

2021 IRP Update Borah Solar with Storage - 28% Capacity Factor	
Wind	Cost and Input Assumptions

2020 \$		Plant capacity cost	
2020 \$		Fixed O&M, plus on-going capital cost	
2020 \$		Wheeling (\$ MWh)	
		Variable O&M	
		Tax Credit \$/MWh	First Year real levelized
2026\$	54.44	Network Upgrade (\$/kw-yr)	B2H Borah - to - Hemingway, Expansion
	5.419%	Payment Factor	
	27.9%	Capacity Factor	

Table 4
Burnertip Natural Gas Price Forecast
Utah 2022.Q3_Solar - 80.0 MW and 32.1% CF

Year	PacifiCorp			
	Delivered IRP - Utah Greenfield Fuel Cost	Delivered Naughton Fuel Cost	Delivered IRP West Side Fuel Cost	Delivered IRP - Wyo NE Fuel Cost
2019	\$2.42	\$2.43	\$4.31	\$2.09
2020	\$1.98	\$1.99	\$2.17	\$1.79
2021	\$4.18	\$4.15	\$4.03	\$6.38
2022	\$6.43	\$6.32	\$6.27	\$6.20
2023	\$5.49	\$5.45	\$4.59	\$5.16
2024	\$4.64	\$4.61	\$3.96	\$4.45
2025	\$4.40	\$4.37	\$3.95	\$4.34
2026	\$4.55	\$4.51	\$4.58	\$4.49
2027	\$4.64	\$4.60	\$5.08	\$4.58
2028	\$4.64	\$4.60	\$5.09	\$4.58
2029	\$4.71	\$4.67	\$5.18	\$4.65
2030	\$4.85	\$4.81	\$5.34	\$4.79
2031	\$4.98	\$4.94	\$5.47	\$4.91
2032	\$5.35	\$5.30	\$5.83	\$5.28
2033	\$5.63	\$5.58	\$6.11	\$5.56
2034	\$5.71	\$5.66	\$6.20	\$5.64
2035	\$5.80	\$5.75	\$6.29	\$5.73
2036	\$5.74	\$5.68	\$6.25	\$5.67
2037	\$5.99	\$5.93	\$6.49	\$5.91
2038	\$6.26	\$6.19	\$6.78	\$6.18
2039	\$6.55	\$6.48	\$7.08	\$6.47
2040	\$6.68	\$6.61	\$7.23	\$6.60

Official Forward Price Curve Forecast dated Sep 30, 2022

Table 5

Utah 2022.Q3_Solar - 80.0 MW and 32.1% CF
 January 2023 through December 2037
 Nominal Avoided Costs Calculated Monthly

Study Name:

Utah 2022.Q3_Solar
 Resource Capacity 80.0 MW
 32.09% CF

15 Year Starting 2025 49 228
 15 Year Starting 2024 37 216
 15 Year Starting 2023 25 204
 15 Year 13 192

Start End 44,927 Jan-23 Dec-37
 Discount Rate - 2021 IRP Update 6.88% 0.556%

Nominal NPV at 6.88% Discount Rate \$ 42,471,257 \$ 23,767,091 \$ 66,238,348 2,069,475 \$32.01

15 Year

Month	Energy	Capacity	Total	Total	AC Price
	Avoided \$	31.7% CF			Dollars
Jan-23	651,479	-	651,479	12,392	52.57
Feb-23	304,942	-	304,942	12,086	25.23
Mar-23	335,398	-	335,398	16,948	19.79
Apr-23	403,803	-	403,803	19,973	20.22
May-23	553,730	-	553,730	27,333	20.26
Jun-23	648,870	-	648,870	25,042	25.91
Jul-23	1,995,990	-	1,995,990	25,543	78.14
Aug-23	1,137,134	-	1,137,134	22,826	49.60
Sep-23	609,870	-	609,870	21,875	27.88
Oct-23	426,049	-	426,049	18,278	23.31
Nov-23	281,010	-	281,010	12,918	21.75
Dec-23	237,617	-	237,617	9,540	24.91
Jan-37	68,628	334,541	403,169	11,552	34.90
Feb-37	(21,361)	334,541	313,180	11,267	27.80
Mar-37	120,310	334,541	454,851	15,800	28.79
Apr-37	181,787	334,541	516,328	18,619	27.73
May-37	266,927	334,541	591,469	25,480	23.21
Jun-37	335,339	334,541	669,880	23,344	28.70
Jul-37	918,621	334,541	1,253,163	23,812	52.63
Aug-37	965,299	334,541	1,299,840	21,372	60.82
Sep-37	575,381	334,541	909,922	20,393	44.62
Oct-37	245,659	334,541	580,200	17,039	34.05
Nov-37	190,964	334,541	525,505	12,042	43.64
Dec-37	(2,651)	334,541	331,890	8,894	37.32

Offset	Year	Date Test	386	Net Power Cost	Offset
1	2023	Jan-23	505	CF - Sch38 - UT - Solar T	
2	2023	Feb-23			
3	2023	Mar-23			
4	2023	Apr-23	2023	7,585,892	-
5	2023	May-23	2024	8,017,997	-
6	2023	Jun-23	2025	5,409,843	-
7	2023	Jul-23	2026	3,668,574	3,175,164
8	2023	Aug-23	2027	3,423,301	3,243,657
9	2023	Sep-23	2028	3,554,558	3,313,672
10	2023	Oct-23	2029	3,904,485	3,385,020
11	2023	Nov-23	2030	3,730,283	3,457,970
12	2023	Dec-23	2031	3,444,829	3,532,520
53	2037	Jan-37			216,016
54	2037	Feb-37			32.30
55	2037	Mar-37			15.95
56	2037	Apr-37			16.35
57	2037	May-37			
58	2037	Jun-37			
59	2037	Jul-37			
60	2037	Aug-37			
61	2037	Sep-37			
62	2037	Oct-37			
63	2037	Nov-37			
64	2037	Dec-37			

Total	energy	capacity
224,854	33.74	33.74
224,342	35.74	35.74
222,611	24.30	24.30
221,498	30.90	16.56
220,390	30.25	15.53
219,889	31.24	16.17
218,192	33.41	17.89
217,101	33.11	17.18
216,016	32.30	15.95

Appendix B.1
Avoided Cost Prices \$/MWh
Utah 2022.Q3 Sch 38

Year	Thermal-Defer 2031			Thermal-Defer 2031			Difference	Difference	Difference
	NonEmitPeaker UT 2022.Q3 100% CF (2)	Solar Tracking UT 2022.Q3 32.25% CF (2)	Wind UT 2022.Q3 29.5% CF (2)	Thermal UT 2022.Q2 100% CF (2)	Solar Tracking UT 2022.Q2 32.25% CF (2)	Wind UT 2022.Q2 29.5% CF (2)			
2023	\$57.75	\$33.74	\$49.25	\$43.68	\$26.88	\$38.11	\$14.07	\$6.86	\$11.14
2024	\$62.71	\$35.74	\$55.71	\$51.04	\$29.40	\$43.96	\$11.67	\$6.35	\$11.75
2025	\$46.95	\$24.30	\$41.17	\$35.98	\$19.08	\$30.97	\$10.97	\$5.22	\$10.19
2026	\$50.15	\$30.90	\$35.36	\$31.23	\$25.64	\$31.89	\$18.92	\$5.26	\$3.47
2027	\$46.05	\$30.25	\$33.80	\$30.18	\$26.33	\$32.54	\$15.86	\$3.92	\$1.26
2028	\$44.74	\$31.24	\$33.52	\$31.52	\$27.51	\$33.67	\$13.22	\$3.73	(\$0.16)
2029	\$45.05	\$33.41	\$35.07	\$33.09	\$29.78	\$34.87	\$11.96	\$3.63	\$0.20
2030	\$41.25	\$33.11	\$34.66	\$32.57	\$29.57	\$35.10	\$8.68	\$3.54	(\$0.44)
2031	\$48.39	\$32.30	\$35.27	\$42.70	\$30.55	\$36.45	\$5.69	\$1.75	(\$1.17)
2032	\$47.71	\$28.03	\$33.17	\$41.92	\$26.16	\$34.85	\$5.79	\$1.87	(\$1.68)
2033	\$47.83	\$32.44	\$35.06	\$43.79	\$30.45	\$36.66	\$4.04	\$1.99	(\$1.60)
2034	\$46.35	\$32.60	\$34.76	\$45.63	\$31.60	\$38.08	\$0.72	\$0.99	(\$3.32)
2035	\$47.95	\$33.63	\$35.70	\$47.00	\$32.55	\$38.87	\$0.95	\$1.08	(\$3.17)
2036	\$50.45	\$36.73	\$52.46	\$48.81	\$35.60	\$56.11	\$1.64	\$1.14	(\$3.65)
2037	\$58.31	\$37.45	\$53.16	\$58.59	\$37.89	\$59.29	(\$0.28)	(\$0.44)	(\$6.13)

15-Year Levelized Prices (Nominal) @ 6.88% Discount Rate (1) (3)										
2023-2037	\$/MWh	\$49.82	\$32.01	\$40.18	\$39.37	\$27.77	\$36.52	\$10.45	\$4.24	\$3.66
								26.5%	15.3%	10.0%

Footnotes:

- (1) Discount Rate - 2021 IRP
- (2) Total Avoided Costs with Capacity, based on stated CF
- (3) 15-Years: 2023 - 2037, levelized monthly

Table 1
Avoided Cost Prices
Utah 2022.Q3_Wind - 80.0 MW and 29.5% CF

Year	Capacity Price \$/kW-yr	Energy Only Price \$/MWh ⁽²⁾	29.5% Capacity Factor \$/MWh
2023	\$0.00	\$49.25	\$49.25
2024	\$0.00	\$55.71	\$55.71
2025	\$0.00	\$41.17	\$41.17
2026	\$87.98	\$1.26	\$35.36
2027	\$89.88	(\$1.03)	\$33.80
2028	\$91.81	(\$1.96)	\$33.52
2029	\$93.80	(\$1.29)	\$35.07
2030	\$95.82	(\$2.47)	\$34.66
2031	\$97.88	(\$2.66)	\$35.27
2032	\$99.99	(\$5.46)	\$33.17
2033	\$102.14	(\$4.53)	\$35.06
2034	\$104.35	(\$5.68)	\$34.76
2035	\$106.59	(\$5.61)	\$35.70
2036	\$108.89	\$10.39	\$52.46
2037	\$111.23	\$10.05	\$53.16
2038	\$113.63	\$15.29	\$59.33

15 Year

Levelized Prices (Nominal) @ 6.88% Discount Rate (1) (3)

\$/kW	\$69.31	
\$/MWh		\$13.32
		\$40.18

Table 2
Avoided Energy Costs - Scheduled Hours (\$/MWh)
Utah 2022.Q3_Wind - 80.0 MW and 29.5% CF

Year	Annual	Winter Season					Summer Season				Winter Season		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Energy Only													
2023	49.25	70.23	47.32	34.00	29.82	25.09	32.62	129.65	77.55	53.81	48.03	40.74	48.39
2024	55.71	76.60	54.05	45.05	32.04	29.43	34.84	133.85	89.77	69.08	47.49	47.40	58.89
2025	41.17	36.37	37.42	33.30	22.25	24.60	25.93	116.30	74.78	61.23	36.10	33.25	45.07
2026	1.26	31.39	20.42	9.74	(0.68)	(5.19)	(15.12)	(37.47)	(52.56)	(9.75)	8.25	9.37	8.86
2027	(1.03)	25.97	17.62	6.29	(0.57)	(5.93)	(16.44)	(38.71)	(55.30)	(12.95)	7.58	6.90	5.55
2028	(1.96)	22.00	10.95	7.52	(1.11)	(6.26)	(16.45)	(37.07)	(49.19)	(12.76)	5.94	3.24	5.89
2029	(1.29)	22.92	17.80	6.77	(0.31)	(6.44)	(16.07)	(38.37)	(50.14)	(16.10)	6.19	6.93	5.79
2030	(2.47)	20.30	13.96	4.42	(1.64)	(7.36)	(17.39)	(37.02)	(47.35)	(14.54)	5.01	6.36	4.45
2031	(2.66)	17.58	12.24	4.20	(1.34)	(7.09)	(16.63)	(36.40)	(48.20)	(13.15)	2.53	6.96	7.77
2032	(5.46)	16.02	9.80	1.40	(4.60)	(10.08)	(18.77)	(36.95)	(52.99)	(17.75)	(1.30)	5.42	3.20
2033	(4.53)	15.83	11.89	0.41	(4.10)	(9.61)	(19.14)	(36.81)	(50.81)	(14.65)	1.11	7.90	5.43
2034	(5.68)	12.92	8.23	0.21	(4.56)	(10.03)	(18.36)	(36.86)	(48.86)	(14.96)	(0.63)	4.86	3.37
2035	(5.61)	14.49	9.30	0.94	(4.24)	(10.33)	(19.18)	(38.56)	(50.53)	(16.03)	(0.10)	5.25	2.71
2036	10.39	23.67	17.06	12.38	10.17	6.96	3.70	(9.14)	(21.96)	9.74	14.57	18.51	16.26
2037	10.05	22.57	18.18	12.59	10.35	6.35	3.35	(8.42)	(22.99)	8.57	13.33	19.44	14.15
2038	15.29	22.18	20.00	12.67	9.88	6.76	3.21	(7.32)	(26.36)	8.68	13.88	20.03	83.10
2039	10.81	23.12	19.29	12.88	10.17	6.97	4.41	(8.05)	(19.54)	7.89	14.59	20.12	15.98
2040	12.08	28.66	21.35	14.51	9.40	6.82	3.42	(8.81)	(19.61)	9.98	16.20	20.71	18.54

Table 3
2021 IRP Update Portland North Coast Wind Resource
37% Capacity Factor

Year	Estimated Capital Cost	Fixed Capital Cost at Real Levelized Rate	Fixed O&M	Network Upgrade	Fixed Costs	Variable O&M	60% PTC	Total Resource Cost	Total Resource Costs	Total Fixed Cost
	\$/kW	\$/kW-yr	\$/kW-yr	\$/kW-yr	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/kW-yr	\$/kW-yr
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(i)

2021 IRP Update Portland North Coast Wind Resource - 37% Capacity Factor

2016										
2017										
2018										
2019										
2020										
2021										
2022										
2023										
2024										
2025										
2026	\$1,418	\$98.97	\$67.89	24.74	\$59.03	\$0.00	(\$22.28)	\$36.75	\$119.29	\$191.59
2027		\$101.10	\$69.35	\$25.27	\$60.30	\$0.00	(\$23.07)	\$37.23	\$120.84	\$195.72
2028		\$103.28	\$70.84	\$25.81	\$61.60	\$0.00	(\$23.07)	\$38.53	\$125.05	\$199.93
2029		\$105.51	\$72.37	\$26.37	\$62.93	\$0.00	(\$23.87)	\$39.06	\$126.78	\$204.25
2030		\$107.78	\$73.93	\$26.94	\$64.29	\$0.00	(\$24.67)	\$39.62	\$128.59	\$208.65
2031		\$110.10	\$75.52	\$27.52	\$65.67	\$0.00	(\$24.67)	\$41.00	\$133.08	\$213.14
2032		\$112.47	\$77.15	\$28.11	\$67.09	\$0.00	(\$25.46)	\$41.63	\$135.10	\$217.73
2033		\$114.89	\$78.81	\$28.72	\$68.53	\$0.00	(\$26.26)	\$42.27	\$137.20	\$222.42
2034		\$117.37	\$80.51	\$29.34	\$70.01	\$0.00	(\$26.26)	\$43.75	\$142.00	\$227.22
2035		\$119.90	\$82.24	\$29.97	\$71.52	\$0.00	(\$27.05)	\$44.46	\$144.30	\$232.11
2036		\$122.48	\$84.01	\$30.62	\$73.06	\$0.00	\$0.00	\$73.06	\$237.11	\$237.11
2037		\$125.12	\$85.82	\$31.28	\$74.63	\$0.00	\$0.00	\$74.63	\$242.22	\$242.22
2038		\$127.82	\$87.67	\$31.95	\$76.24	\$0.00	\$0.00	\$76.24	\$247.44	\$247.44
2039		\$130.57	\$89.56	\$32.64	\$77.88	\$0.00	\$0.00	\$77.88	\$252.77	\$252.77
2040		\$133.38	\$91.49	\$33.34	\$79.56	\$0.00	\$0.00	\$79.56	\$258.21	\$258.21
2041		\$136.25	\$93.46	\$34.06	\$81.27	\$0.00	\$0.00	\$81.27	\$263.77	\$263.77
2042		\$139.19	\$95.47	\$34.79	\$83.02	\$0.00	\$0.00	\$83.02	\$269.45	\$269.45
2043		\$142.19	\$97.53	\$35.54	\$84.81	\$0.00	\$0.00	\$84.81	\$275.26	\$275.26

Sources, Inputs and Assumptions

Source:	(c)(f)	Plant Costs - 2021 IRP Update - Table 7.1 & 7.2
	(a)	Plant capacity cost
	(b)	= (a) x 0.0697927885163824
	(e)	= ((b) + (c)) / (8.76 x 37.0%)
	(h)	= (e) + (f) + (g)
	(i)	Plant Costs - 2021 IRP Update - Table 7.1 & 7.2

2021 IRP Update Portland North Coast Wind Resource - 37% Capacity Factor

Wind Cost and Input Assumptions

2026\$	\$1,418	Plant capacity cost	
2026\$	\$67.89	Fixed O&M, plus on-going capital cost	
		Wheeling (\$ MWh)	
		Variable O&M	
		Tax Credit \$/MWh	First Year real levelized
2026\$	24.74	Network Upgrade (\$/kw-yr)	Portland NC, Transmission Integration
	6.979%	Payment Factor	
	37.0%	Capacity Factor	

Table 4
Burnertip Natural Gas Price Forecast
Utah 2022.Q3_Wind - 80.0 MW and 29.5% CF

Year	PacifiCorp			
	Delivered IRP - Utah Greenfield Fuel Cost	Delivered Naughton Fuel Cost	Delivered IRP West Side Fuel Cost	Delivered IRP - Wyo NE Fuel Cost
2019	\$2.42	\$2.43	\$4.31	\$2.09
2020	\$1.98	\$1.99	\$2.17	\$1.79
2021	\$4.18	\$4.15	\$4.03	\$6.38
2022	\$6.43	\$6.32	\$6.27	\$6.20
2023	\$5.49	\$5.45	\$4.59	\$5.16
2024	\$4.64	\$4.61	\$3.96	\$4.45
2025	\$4.40	\$4.37	\$3.95	\$4.34
2026	\$4.55	\$4.51	\$4.58	\$4.49
2027	\$4.64	\$4.60	\$5.08	\$4.58
2028	\$4.64	\$4.60	\$5.09	\$4.58
2029	\$4.71	\$4.67	\$5.18	\$4.65
2030	\$4.85	\$4.81	\$5.34	\$4.79
2031	\$4.98	\$4.94	\$5.47	\$4.91
2032	\$5.35	\$5.30	\$5.83	\$5.28
2033	\$5.63	\$5.58	\$6.11	\$5.56
2034	\$5.71	\$5.66	\$6.20	\$5.64
2035	\$5.80	\$5.75	\$6.29	\$5.73
2036	\$5.74	\$5.68	\$6.25	\$5.67
2037	\$5.99	\$5.93	\$6.49	\$5.91
2038	\$6.26	\$6.19	\$6.78	\$6.18
2039	\$6.55	\$6.48	\$7.08	\$6.47
2040	\$6.68	\$6.61	\$7.23	\$6.60

Official Forward Price Curve Forecast dated Sep 30, 2022

Table 5

Utah 2022.Q3_Wind - 80.0 MW and 29.5% CF
 January 2023 through December 2037
 Nominal Avoided Costs Calculated Monthly

Study Name:

Utah 2022.Q3_Wind
 Resource Capacity 80.0 MW
 29.45% CF

15 Year Starting 2025 15 Year Starting 2024 15 Year Starting 2023 15 Year Starting 2022
 49 37 25 13
 228 216 204 192

Start End 44,927 Jan-23 Dec-37
 Discount Rate - 2021 IRP Update
 6.88% 0.556%

Nominal NPV at 6.88% Discount Rate
 \$ 26,120,225 \$ 52,683,873 \$ 78,804,098 1,961,163 \$40.18

15 Year

Month	Energy	Capacity	Total	Total	AC Price
	Avoided \$	29.5% CF			
Jan-23	1,468,306	-	1,468,306	20,908	70.23
Feb-23	940,038	-	940,038	19,864	47.32
Mar-23	859,149	-	859,149	25,269	34.00
Apr-23	608,810	-	608,810	20,415	29.82
May-23	515,386	-	515,386	20,545	25.09
Jun-23	543,368	-	543,368	16,657	32.62
Jul-23	1,586,550	-	1,586,550	12,238	129.65
Aug-23	761,331	-	761,331	9,818	77.55
Sep-23	681,447	-	681,447	12,664	53.81
Oct-23	841,072	-	841,072	17,510	48.03
Nov-23	620,802	-	620,802	15,239	40.74
Dec-23	740,044	-	740,044	15,292	48.39
Jan-37	471,944	741,558	1,213,502	20,908	58.04
Feb-37	391,077	741,558	1,102,636	19,864	55.51
Mar-37	318,190	741,558	1,059,748	25,269	41.94
Apr-37	211,292	741,558	952,851	20,415	46.67
May-37	130,419	741,558	871,977	20,545	42.44
Jun-37	55,861	741,558	797,420	16,657	47.87
Jul-37	(102,995)	741,558	838,563	12,238	52.18
Aug-37	(225,696)	741,558	515,863	9,818	52.54
Sep-37	108,555	741,558	850,114	12,664	67.13
Oct-37	233,360	741,558	974,919	17,510	55.88
Nov-37	296,252	741,558	1,037,810	15,239	68.10
Dec-37	216,323	741,558	957,882	15,292	62.64

Offset	Year	Date Test	386	Net Power Cost	Offset
1	2023	Jan-23	505	CF - Sch38 - UT - Wind	
2	2023	Feb-23			
3	2023	Mar-23			
4	2023	Apr-23	2023	10,168,301	-
5	2023	May-23	2024	11,534,987	-
6	2023	Jun-23	2025	8,497,507	-
7	2023	Jul-23	2026	260,444	7,038,704
8	2023	Aug-23	2027	(213,369)	7,190,379
9	2023	Sep-23	2028	(405,730)	7,345,046
10	2023	Oct-23	2029	(265,536)	7,503,755
11	2023	Nov-23	2030	(510,433)	7,665,402
12	2023	Dec-23	2031	(549,127)	7,830,356
53	2037	Jan-37			206,420
54	2037	Feb-37			49.25
55	2037	Mar-37			55.71
56	2037	Apr-37			41.17
57	2037	May-37			55.71
58	2037	Jun-37			41.17
59	2037	Jul-37			35.36
60	2037	Aug-37			1.26
61	2037	Sep-37			34.10
62	2037	Oct-37			(1.03)
63	2037	Nov-37			34.83
64	2037	Dec-37			(1.96)

Total	energy	capacity
206,420	49.25	49.25
207,045	55.71	55.71
206,420	41.17	41.17
206,420	35.36	1.26
206,420	33.80	(1.03)
207,045	33.52	(1.96)
206,420	35.07	(1.29)
206,420	34.66	(2.47)
206,420	35.27	(2.66)

ROCKY MOUNTAIN POWER

STEP STUDY BETWEEN PRIOR FILING AND CURRENT FILING

2022.Q3 – December 2022

Nominal Levelized Payment at 6.880% Discount Rate

	2023 - 2037	2024 - 2038	2025 - 2039
2022.Q2 As Filed	\$40.19	\$40.52	\$40.14
OFPC	\$4.68	\$4.56	\$4.33
Generic	\$2.29	\$1.70	\$1.26
Load Fcst	\$2.78	\$2.51	\$2.51
Queue	-\$0.05	\$0.13	\$0.14
2022.Q3 As Filed	\$49.89	\$49.42	\$48.38

Appendix C

Utah Quarterly Compliance Filing Step Study between 2022.Q3 and 2022.Q2 Compliance Filing Avoided Cost Impact of Changing Assumptions \$/MWH (1)

Year	OFPC (2)	Generic	Load Fcst	Queue	Total Impact
2023	\$ 3.88	\$ 6.99	\$ 4.34	\$ (1.13)	\$ 14.07
2024	\$ 4.42	\$ 5.29	\$ 1.97	\$ (0.01)	\$ 11.67
2025	\$ 2.58	\$ 3.65	\$ 4.23	\$ 0.51	\$ 10.97
2026	\$ 8.18	\$ 3.24	\$ 7.41	\$ 0.09	\$ 18.92
2027	\$ 8.95	\$ 2.06	\$ 4.77	\$ 0.08	\$ 15.86
2028	\$ 7.80	\$ 1.33	\$ 3.91	\$ 0.18	\$ 13.22
2029	\$ 7.98	\$ 1.40	\$ 2.39	\$ 0.19	\$ 11.96
2030	\$ 6.77	\$ 0.47	\$ 1.39	\$ 0.05	\$ 8.68
2031	\$ 4.53	\$ 0.33	\$ 0.69	\$ 0.14	\$ 5.69
2032	\$ 4.34	\$ 0.34	\$ 1.02	\$ 0.09	\$ 5.79
2033	\$ 2.90	\$ 0.13	\$ 0.92	\$ 0.10	\$ 4.05
2034	\$ (0.07)	\$ 0.30	\$ 0.41	\$ 0.08	\$ 0.72
2035	\$ 0.28	\$ 0.34	\$ 0.28	\$ 0.06	\$ 0.95
2036	\$ 0.99	\$ 0.29	\$ 0.25	\$ 0.12	\$ 1.64
2037	\$ (0.46)	\$ 0.11	\$ 1.21	\$ (1.14)	\$ (0.28)
2038	\$ (0.45)	\$ 0.35	\$ 0.56	\$ 1.24	\$ 1.69
2039	\$ (1.49)	\$ 0.37	\$ 0.88	\$ 0.08	\$ (0.17)

Nominal Levelized Payment at 6.880% Discount Rate (3)

2023 - 2037	\$ 4.68	\$ 2.29	\$ 2.78	\$ (0.05)	\$ 9.70
2024 - 2038	\$ 4.56	\$ 1.70	\$ 2.51	\$ 0.13	\$ 8.90
2025 - 2039	\$ 4.33	\$ 1.26	\$ 2.51	\$ 0.14	\$ 8.24

- (1) Studies are sequential. The order of the studies would affect the price impact.
- (2) Official Forward Price Curve Dated September 2022
- (3) Discount Rate - 2021 IRP - Calculated Annually
- (4) Capacity costs are allocated based on assumed 100% capacity factor.
- (5) Avoided Capacity costs are based on Partial Displacement of non-emitting Peaker in 2031 from 2021 IRP Update Preferred Portfolio.

Appendix C

**Utah Quarterly Compliance Filing
Step Study between 2022.Q3 and 2022.Q2 Compliance Filing
Total Avoided Cost Prices \$/MWH (1) (4)**

Year	2022.Q2 As Filed	OFPC (2)	Generic	Load Fcst	Queue (5)
2023	\$43.68	\$47.55	\$54.54	\$58.88	\$57.75
2024	\$51.04	\$55.46	\$60.75	\$62.72	\$62.71
2025	\$35.98	\$38.56	\$42.21	\$46.44	\$46.95
2026	\$31.23	\$39.41	\$42.65	\$50.06	\$50.15
2027	\$30.18	\$39.14	\$41.19	\$45.97	\$46.05
2028	\$31.52	\$39.32	\$40.65	\$44.56	\$44.74
2029	\$33.09	\$41.07	\$42.47	\$44.86	\$45.05
2030	\$32.57	\$39.34	\$39.81	\$41.20	\$41.25
2031	\$42.70	\$47.23	\$47.56	\$48.25	\$48.39
2032	\$41.92	\$46.26	\$46.60	\$47.62	\$47.71
2033	\$43.79	\$46.69	\$46.82	\$47.74	\$47.83
2034	\$45.63	\$45.56	\$45.85	\$46.27	\$46.35
2035	\$47.00	\$47.28	\$47.62	\$47.89	\$47.95
2036	\$48.81	\$49.80	\$50.09	\$50.34	\$50.45
2037	\$58.59	\$58.14	\$58.25	\$59.46	\$58.32
2038	\$57.74	\$57.29	\$57.63	\$58.19	\$59.43
2039	\$59.72	\$58.23	\$58.60	\$59.48	\$59.56

Nominal Levelized Payment at 6.880% Discount Rate (3)

2023 - 2037	\$40.19	\$44.87	\$47.16	\$49.94	\$49.89
2024 - 2038	\$40.52	\$45.08	\$46.78	\$49.29	\$49.42
2025 - 2039	\$40.14	\$44.47	\$45.73	\$48.24	\$48.38

- (1) Studies are sequential. The order of the studies would affect the price impact.
 - (2) Official Forward Price Curve Dated September 2022
 - (3) Discount Rate - 2021 IRP - Calculated Annually
 - (4) Capacity costs are allocated based on assumed 100% capacity factor.
 - (5) Avoided Capacity costs are based on Partial Displacement of non-emitting Peaker in 2031 from 2021 IRP Update Preferred Portfolio.
- Discount Rate - 2021 IRP

Appendix C

Utah Quarterly Compliance Filing Step Study between 2022.Q3 and 2022.Q2 Compliance Filing GRID Calculated Energy Avoided Cost Prices \$/MWH (1)

Year	2022.Q2 As Filed	OFPC (2)	Generic	Load Fcst	Queue (4)
2023	\$43.68	\$47.55	\$54.54	\$58.88	\$57.75
2024	\$51.04	\$55.46	\$60.75	\$62.72	\$62.71
2025	\$35.98	\$38.56	\$42.21	\$46.44	\$46.95
2026	\$31.23	\$39.41	\$42.65	\$50.06	\$50.15
2027	\$30.18	\$39.14	\$41.19	\$45.97	\$46.05
2028	\$31.52	\$39.32	\$40.65	\$44.56	\$44.74
2029	\$33.09	\$41.07	\$42.47	\$44.86	\$45.05
2030	\$32.57	\$39.34	\$39.81	\$41.20	\$41.25
2031	\$29.08	\$33.61	\$33.94	\$34.63	\$34.77
2032	\$28.05	\$32.38	\$32.73	\$33.75	\$33.84
2033	\$29.58	\$32.48	\$32.61	\$33.53	\$33.62
2034	\$31.11	\$31.04	\$31.34	\$31.75	\$31.83
2035	\$32.18	\$32.45	\$32.79	\$33.06	\$33.13
2036	\$33.70	\$34.69	\$34.99	\$35.23	\$35.35
2037	\$43.12	\$42.66	\$42.78	\$43.98	\$42.84
2038	\$41.93	\$41.48	\$41.83	\$42.38	\$43.63
2039	\$43.58	\$42.09	\$42.45	\$43.33	\$43.41

Nominal Levelized Payment at 6.88% Discount Rate (3)

2023 - 2037	\$35.19	\$39.87	\$42.16	\$44.94	\$44.89
2024 - 2038	\$34.54	\$39.10	\$40.80	\$43.32	\$43.44
2025 - 2039	\$33.10	\$37.44	\$38.69	\$41.20	\$41.34

- (1) Studies are sequential. The order of the studies would affect the price impact.
- (2) Official Forward Price Curve Dated September 2022
- (3) Discount Rate - 2021 IRP - Calculated Annually

Appendix C
Utah Quarterly Compliance Filing
Step Study between 2022.Q3 and 2022.Q2 Compliance Filing
Capacity Avoided Cost Prices

Year	\$/kW-Year					\$/MWH (1)				
	2022.Q2	OFPC	Forced_Outage	Load Fcst	2022.Q3	2022.Q2	OFPC	Forced_Outage	Load Fcst	2022.Q3
2023	-	-	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-
2031	\$ 119.29	\$ 119.29	\$ 119.29	\$ 119.29	\$ 119.29	\$ 13.62	\$ 13.62	\$ 13.62	\$ 13.62	\$ 13.62
2032	\$ 121.85	\$ 121.85	\$ 121.85	\$ 121.85	\$ 121.85	\$ 13.87	\$ 13.87	\$ 13.87	\$ 13.87	\$ 13.87
2033	\$ 124.48	\$ 124.48	\$ 124.48	\$ 124.48	\$ 124.48	\$ 14.21	\$ 14.21	\$ 14.21	\$ 14.21	\$ 14.21
2034	\$ 127.16	\$ 127.16	\$ 127.16	\$ 127.16	\$ 127.16	\$ 14.52	\$ 14.52	\$ 14.52	\$ 14.52	\$ 14.52
2035	\$ 129.90	\$ 129.90	\$ 129.90	\$ 129.90	\$ 129.90	\$ 14.83	\$ 14.83	\$ 14.83	\$ 14.83	\$ 14.83
2036	\$ 132.70	\$ 132.70	\$ 132.70	\$ 132.70	\$ 132.70	\$ 15.11	\$ 15.11	\$ 15.11	\$ 15.11	\$ 15.11
2037	\$ 135.56	\$ 135.56	\$ 135.56	\$ 135.56	\$ 135.56	\$ 15.47	\$ 15.47	\$ 15.47	\$ 15.47	\$ 15.47
2038	\$ 138.47	\$ 138.47	\$ 138.47	\$ 138.47	\$ 138.47	\$ 15.81	\$ 15.81	\$ 15.81	\$ 15.81	\$ 15.81
2039	\$ 141.46	\$ 141.46	\$ 141.46	\$ 141.46	\$ 141.46	\$ 16.15	\$ 16.15	\$ 16.15	\$ 16.15	\$ 16.15

Nominal Levelized Payment at 6.880% Discount Rate (2)

2023 - 2037	\$43.83	\$43.83	\$43.83	\$43.83	\$43.83	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
2024 - 2038	\$52.40	\$52.40	\$52.40	\$52.40	\$52.40	\$5.98	\$5.98	\$5.98	\$5.98	\$5.98
2025 - 2039	\$61.69	\$61.69	\$61.69	\$61.69	\$61.69	\$7.04	\$7.04	\$7.04	\$7.04	\$7.04

- (1) Capacity costs are allocated based on assumed 100% capacity factor.
- (2) Discount Rate - 2021 IRP
- (3) No Capacity costs - No deferrable thermal resources

CERTIFICATE OF SERVICE

Docket No. 22-035-36/ Docket No. 03-035-14

I hereby certify that on December 27, 2022, a true and correct copy of the foregoing was served by electronic mail to the following:

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ocs@utah.gov

Division of Public Utilities

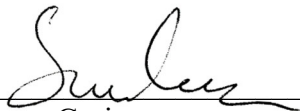
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