

## BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

<b>IN THE MATTER OF THE APPLICATION</b>	)	<b>CASE NO. PAC-E-20-14</b>
<b>OF ROCKY MOUNTAIN POWER FOR</b>	)	
<b>AUTHORIZATION TO UPDATE THE WIND</b>	)	
<b>AND SOLAR INTEGRATION RATE FOR</b>	)	<b>ORDER NO. 34966</b>
<b>SMALL POWER GENERATION</b>	)	
<b><u>QUALIFYING FACILITIES</u></b>	)	

On October 8, 2020, Rocky Mountain Power, a division of PacifiCorp (the “Company”) applied to increase the wind and solar integration rates for new power purchase agreements (“PPAs”) between the Company and wind and solar qualifying facilities (“QFs”).

On November 23, 2020, the Commission issued a Notice of Application and Notice of Intervention Deadline. Order No. 34840. No one intervened.

On January 12, 2021, the Commission issued Notice of Modified Procedure and set comment and reply comment deadlines for interested persons and parties and the Company. Order No. 34888 at 1-2. Staff filed the only comments, and the Company filed a reply.

Having reviewed the record, the Commission enters this Order approving the Company’s Application on the conditions described below. The Company’s wind integration rate for wind-powered QFs and the solar integration rate for solar-powered QFs shall increase as shown on Attachment A that is attached to this Order.

### APPLICATION

In its Application, the Company stated that it filed Case No. PAC-E-07-07 in 2007, requesting approval of a utility-specific wind integration adjustment to published avoided cost rates. *Id.* at 2. The Commission approved a stipulation by the parties and decided a utility-specific wind integration cost adjustment was appropriate. *Id.* citing Order No. 30497 at 12. Further, the Company stated the Commission ordered the Company to file any changes to the wind integration charge reflected in future Integrated Resource Plans (“IRP”). *Id.* citing Order No. 30497 at 13. On August 28, 2017, after filing the 2017 IRP, the Company filed to update the wind integration rate and to implement a solar integration rate based on the 2017 IRP Flexible Reserve Study (“FRS”). *Id.*

The Company stated it filed the Application consistent with Order No. 30497 to increase the integration rates for wind and solar-powered QFs that would apply against published

avoided cost rates unless the QF delivers firm hourly energy to the Company under a PPA. *Id.* at 1. The Company proposed to increase the wind integration rate from \$0.57 to \$1.11 per MWh for wind-powered QFs and the solar integration rate from \$0.60 to \$0.85 per MWh for solar-powered QFs. *Id.*

On October 25, 2020, the Company filed its 2019 IRP. *See* Case No. PAC-E-19-16. *Id.* at 3. In support of the Application, the Company submitted Attachment No. 1, Appendix F - FRS from Volume II of the 2019 IRP. Attachment No. 1 explains the method used and the results derived from PacifiCorp's analysis of wind and solar integration costs. *Id.*

## COMMENTS

### Staff Comments

Staff believed the Company's method for calculating wind and solar integration rates is reasonable and the results can be applied to future QF PPAs. *Staff Comments* at 3. Staff stated the 2019 FRS estimates regulation-reserve requirements based on 2017 actual operational data the Company uses for hourly forecasts to satisfy the North American Energy Regulatory Commission's reliability standards. *Id.* The 2019 FRS also determines proposed integration rates by comparing the Company's operating reserve requirements over 20 years to the Company's flexible resource supply. *Id.*

Staff stated the 2019 FRS differs from the 2017 FRS because:

- Regulation reserve requirements are co-optimized in quantile regression.
- Actual hourly load schedules are used instead of proxy schedules.
- Actual solar schedules are used instead of proxy schedules.
- Energy Imbalance Market information is based on actual operational experience.
- Integration costs are based on a future 2030 study period and escalated relative to 2030 values instead of using a 2017 study period and escalating cost at inflation into the future.
- Inter-hour balancing integration costs were excluded due to minimal impact in the 2017 FRS.
- Incremental impact of changes in forecasted load on reserve requirement were accounted for in the 2019 FRS.

*Staff Comments* at 4. Although most of the identified changes are minor, Staff believes they improve the accuracy of the 2019 FRS. *Id.*

Staff explained the Company's method for calculating solar and wind integration rates was generally reasonable. For example, to ensure integration rates are commensurate with the need for reserves as the Company's system undergoes significant change, moving to a method that incorporates a 2030 study period is more likely to produce accurate integration rates. *Id.* at 5.

Staff said all but three of the Company's underlying assumptions for the integration rates are reasonable and would produce acceptable results. *Id.* Staff noted that: (1) the Company used the wrong number of hours per year to calculate the wind integration rate – a corrected number would increase the wind integration rate by about 1% (raising the rate to \$1.12 per MWh); (2) the Company used the same escalators for wind and solar (Staff recommended use of separate escalators in future studies) and; (3) the Company used different levels of time between base cases (although, ultimately, Staff did not find this to be a major concern).

Staff believed the 2019 FRS's integration rates were reasonable because they were based on refinements to a method used to determine previously approved integration rates. *Id.* In addition, the Company used technical review committees and the IRP process to vet the methods and results. *Id.*

The Company proposed a \$1.11 per MWh wind integration rate and a \$0.85 per MWh solar integration rate be used in the Surrogate Avoided Resource ("SAR") model for levelized and non-levelized published avoided cost rates for the duration of a QF's contract. *Id.* at 7.

Currently, the SAR model allows one constant number for wind and solar integration rates, even though the Company's 2019 FRS produces different integration rates for different years. *Id.* at 8. Staff proposed non-levelized integration rates based directly on the Company's FRS results and calculating levelized integration rates for different online years for different contract lengths as illustrated in Attachment A to Staff's Comments.<sup>1</sup> *Id.* Staff believed this would lead to more accurate integration rates.

The Company proposed to apply the integration rates only to published avoided cost rates because IRP avoided cost rates automatically reflect integration rates under the Company's IRP Method. Staff believed this is reasonable. However, because the Company proposes to apply integration rates as an adjustment to published rates only, Staff believes the rates should be

---

<sup>1</sup> The integration rates in Attachment A would be applied after Monthly Weighting Factors and Heavy Load Hour and Light Load Hour Adjustments are applied to be consistent with how integration rates are currently applied in the SAR model.

calculated using the same Overall Weighted Cost of Capital Percentage authorized in the SAR model. *Id.*

The Company proposed to apply integration rates to wind and solar QFs unless the QF developer agrees in a PPA to schedule and deliver, via a transmission provider, the output to the Company on a firm hourly basis. *Id.* at 9. Staff recommended that when situations warranting a waiver of integration rates occur, the Company should still include other provisions such as MAG and forecasting fees to fully replace 90/110 requirements. *Id.*

### **Company Reply Comments**

In its reply, the Company stated it appreciated Staff's review of the Application and support of the improvements to the method used to calculate integration costs. *Reply Comments* at 2. The Company stated it expects to continue to refine integration cost calculations in future IRPs. *Id.* The Company noted it corrected the formula error identified by Staff and submitted corrected integration rates in Attachment A to the reply. *Id.*

### **COMMISSION FINDINGS AND DECISION**

The Commission has jurisdiction over this matter under *Idaho Code* §§ 61-502 and 61-503. The Commission is statutorily authorized to investigate rates, charges, rules, regulations, practices, and contracts of public utilities and to determine whether they are just, reasonable, preferential, discriminatory, or in violation of any provision of law, and to fix the same by order. *Idaho Code* §§ 61-502 and 61-503. In addition, the Commission has authority under PURPA and Federal Energy Regulatory Commission ("FERC") regulations to set avoided costs, to order electric utilities to enter fixed-term obligations for the purchase of energy from qualified facilities and to implement FERC rules. The Commission may enter any final order consistent with its authority under Title 61 and PURPA.

Based on our review of the record, the Commission finds that it is fair, just and reasonable to authorize the Company to increase its wind and solar integration rates. To accurately reflect integration rates over the life of the contract it is appropriate to change the constant single rate for integration costs inside the SAR model to annual rates over the life of contracts. Attachment A provides these detailed integration rates and the Commission finds they are fair, just and reasonable. The new wind and solar integration rates shall apply to purchases of power from wind and solar-powered QFs for published avoided cost rates beginning from the issuance of this Order.

The Commission also finds it reasonable to approve the format and the method used to derive the rates as illustrated in Attachment A and require the Company to submit any changes to integration rates in this format in future filings.

### **ORDER**


IT IS HEREBY ORDERED that the Company's Application, requesting authorization to increase the wind integration rate for the Company's purchases of electric power from wind-powered QFs and increase the solar integration rate for the Company's purchases of electric power from solar-powered QFs, as shown on Attachment A to this Order are approved. These rates apply against published avoided cost rates under PURPA, unless the QF developer agrees in the power purchase agreement to schedule and deliver, via a transmission provider, the QF output to the Company on a firm hourly basis.

IT IS FURTHER ORDERED that the format and the method used to derive the wind and solar integration rates as illustrated in Attachment A to this Order are approved. The Company shall file these rates in this format in future filings.

IT IS FURTHER ORDERED that consistent with Order No. 33937 the Company is to continue to file any future updates to its integration rates after the Commission has acknowledged its IRP supporting the updates.

THIS IS A FINAL ORDER. Any person interested in this Order may petition for reconsideration within twenty-one (21) days of the service date of this Order about any matter decided in this Order. Within seven (7) days after any person has petitioned for reconsideration, any other person may cross-petition for reconsideration. *See Idaho Code* § 61- 626.

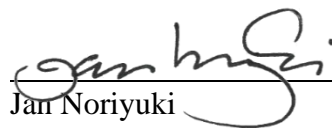
DONE by order of the Idaho Public Utilities Commission at Boise, Idaho this 5<sup>th</sup> day of April 2021.

  
PAUL KJELLANDER, PRESIDENT

  
KRISTINE RAPER, COMMISSIONER

  
ERIC ANDERSON, COMMISSIONER

ATTEST:

  
Jan Noriyuki  
Commission Secretary

I:\Legal\ELECTRIC\PAC-E-20-14\orders\PACE2014\_final\_jh.docx

## Wind and Solar Integration Charges

**Table 1. Wind Integration Charges**

Year	Non-Levelized Rates \$/MWh	Levelized Rates Contract Length	Online Year					
			2021	2022	2023	2024	2025	2026
2021	0.19	1	\$0.19	\$0.27	\$0.29	\$0.36	\$0.62	\$0.45
2022	0.27	2	\$0.23	\$0.28	\$0.32	\$0.48	\$0.54	\$0.57
2023	0.29	3	\$0.25	\$0.30	\$0.41	\$0.47	\$0.59	\$0.69
2024	0.36	4	\$0.27	\$0.37	\$0.42	\$0.52	\$0.67	\$0.82
2025	0.62	5	\$0.33	\$0.39	\$0.47	\$0.60	\$0.78	\$0.96
2026	0.45	6	\$0.35	\$0.43	\$0.54	\$0.69	\$0.89	\$1.05
2027	0.70	7	\$0.39	\$0.49	\$0.62	\$0.80	\$0.98	\$1.13
2028	0.94	8	\$0.44	\$0.56	\$0.72	\$0.88	\$1.05	\$1.20
2029	1.31	9	\$0.51	\$0.65	\$0.79	\$0.95	\$1.11	\$1.24
2030	1.63	10	\$0.59	\$0.72	\$0.86	\$1.01	\$1.16	\$1.28
2031	1.65	11	\$0.65	\$0.78	\$0.92	\$1.05	\$1.19	\$1.30
2032	1.77	12	\$0.71	\$0.84	\$0.96	\$1.09	\$1.21	\$1.32
2033	1.81	13	\$0.76	\$0.88	\$1.00	\$1.11	\$1.23	\$1.33
2034	1.77	14	\$0.80	\$0.92	\$1.02	\$1.14	\$1.25	\$1.35
2035	1.74	15	\$0.84	\$0.94	\$1.04	\$1.15	\$1.27	\$1.36
2036	1.60	16	\$0.86	\$0.96	\$1.06	\$1.17	\$1.28	\$1.38
2037	1.63	17	\$0.89	\$0.98	\$1.08	\$1.19	\$1.30	\$1.39
2038	1.67	18	\$0.91	\$1.00	\$1.10	\$1.21	\$1.31	\$1.40
2039	1.71	19	\$0.93	\$1.02	\$1.12	\$1.22	\$1.33	\$1.41
2040	1.75	20	\$0.94	\$1.04	\$1.13	\$1.24	\$1.34	\$1.43
2041	1.79	21						
2042	1.83	22						
2043	1.87	23						
2044	1.91	24						
2045	1.96	25						

## Wind and Solar Integration Charges

**Table 2. Solar Integration Charges**

Year	Non-Levelized Rates	Levelized Rates	Online Year					
	\$/MWh	Contract Length	2021	2022	2023	2024	2025	2026
2021	0.15	1	\$0.15	\$0.22	\$0.24	\$0.29	\$0.50	\$0.37
2022	0.22	2	\$0.18	\$0.23	\$0.26	\$0.39	\$0.43	\$0.46
2023	0.24	3	\$0.20	\$0.24	\$0.33	\$0.38	\$0.47	\$0.55
2024	0.29	4	\$0.22	\$0.30	\$0.34	\$0.42	\$0.54	\$0.66
2025	0.50	5	\$0.27	\$0.31	\$0.38	\$0.48	\$0.62	\$0.77
2026	0.37	6	\$0.28	\$0.35	\$0.43	\$0.56	\$0.72	\$0.85
2027	0.56	7	\$0.31	\$0.39	\$0.50	\$0.64	\$0.79	\$0.91
2028	0.76	8	\$0.35	\$0.45	\$0.58	\$0.71	\$0.85	\$0.96
2029	1.05	9	\$0.41	\$0.52	\$0.64	\$0.76	\$0.89	\$1.00
2030	1.31	10	\$0.47	\$0.58	\$0.69	\$0.81	\$0.93	\$1.03
2031	1.32	11	\$0.52	\$0.63	\$0.74	\$0.85	\$0.96	\$1.04
2032	1.42	12	\$0.57	\$0.67	\$0.77	\$0.88	\$0.98	\$1.06
2033	1.45	13	\$0.61	\$0.71	\$0.80	\$0.90	\$0.99	\$1.07
2034	1.42	14	\$0.65	\$0.74	\$0.82	\$0.91	\$1.01	\$1.08
2035	1.40	15	\$0.67	\$0.76	\$0.84	\$0.93	\$1.02	\$1.10
2036	1.28	16	\$0.69	\$0.77	\$0.86	\$0.94	\$1.03	\$1.11
2037	1.31	17	\$0.71	\$0.79	\$0.87	\$0.96	\$1.04	\$1.12
2038	1.34	18	\$0.73	\$0.81	\$0.89	\$0.97	\$1.06	\$1.13
2039	1.37	19	\$0.74	\$0.82	\$0.90	\$0.98	\$1.07	\$1.14
2040	1.41	20	\$0.76	\$0.83	\$0.91	\$0.99	\$1.08	\$1.15
2041	1.44	21						
2042	1.47	22						
2043	1.50	23						
2044	1.54	24						
2045	1.57	25						