Exh. RMM-5 Docket UE-230172 Witness: Robert M. Meredith

## BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

PACIFICORP dba PACIFIC POWER & LIGHT COMPANY

Respondent.

Docket UE-230172

## PACIFICORP

## **EXHIBIT OF ROBERT M. MEREDITH**

**Renewable Future Peak Credit Calculation** 

March 2023 (REFILED April 19, 2023)

## PacifiCorp State of Washington Classification of Fixed Generation Costs

Lithium-Ion Battery, 50 MW, 200 MWh			
1 Fixed Cost per kW-year <sup>1</sup>	\$223.65		
2 Cost per MWh to $Charge^2$	\$75.83		
3 Hours of Operation	12		
4 Storage Efficiency <sup>2</sup>	85%		
5 Total Cost of Charging	\$1.07	Line 2 / 1000 / Line 4 X Line 3	
6 Total Cost 1 kW-year, 12 Hours	\$224.72	Line 1 + Line 5	

	Medicine Bow, WY, 200 MW Wind, CF: 43.6% (100%PTC)			
7	Fixed Cost per kW-year <sup>3</sup>	\$120.28		
8	Average Output Requirement @ 65.0% Load Factor <sup>4</sup>	5,694	8,760 X 85.4%	
9	Output @ 43.6% Capacity Factor <sup>3</sup>	3,819	8,760 X 43.6%	
10	Total kW Capacity Required	1.49	Line 8 / Line 9	
11	Total Fixed Costs	\$179.32	Line 7 X Line 10	
12	Demand Related Cost @ 30% Capacity Contribution <sup>5</sup>	\$100.03	Line 10 X 30% X Line 1	
13	Total Energy Related Cost	\$79.29	Line 11 - Line 12	
14	Demand Component	74%	Line 6 / (Line 6 + Line 13)	
15	Energy Component	26%	100% - Line 14	

Footnotes -

1 - See page 177 of PacifiCorp's 2021 Integrated Resource Plan, Volume I.

2 - See page 183 of PacifiCorp's 2021 Integrated Resource Plan, Volume I.

3 - See page 176 of PacifiCorp's 2021 Integrated Resource Plan, Volume I.

4 - 65.0% is the load factor for the PacifiCorp system for the 12 month period ended June 2022.

5 - See page 220 of PacifiCorp's 2021 Integrated Resource Plan, Volume II.