

**Exh. JDW-14C
Docket UE-230482
Witness: John D. Wilson
REDACTED**

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

In the Matter of

PACIFIC POWER & LIGHT COMPANY

**2022 Power Cost Adjustment Mechanism
Annual Report**

DOCKET UE-230482

EXHIBIT TO TESTIMONY OF

JOHN D. WILSON

**ON BEHALF OF STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION**

PacifiCorp Response to UTC Staff Data Request No. 30

March 28, 2024

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WUTC Data Request 30

CONFIDENTIAL REQUEST - Analysis of data provided by PacifiCorp in response to WUTC DRs 14, 15, 16, and 27 indicates that the Hermiston and Chehalis units were both under- and over-dispatched during the year. The following is a summary of Staff's initial analysis:

In the following table, the following definitions are used:

- **Underdispatch:** Mid-C day-ahead price greater than unit cost (fuel plus variable operating)
- **Overdispatch:** Unit cost greater than Mid-C day-ahead price
- **Low dispatch:** Overdispatch, with generation < 10 MWh
- **Offline:** Generation < 1 MWh

[REDACTED]

[REDACTED]

[REDACTED]

Unit fuel cost is calculated as the unit-specific daily gas price times the unit volume divided by the daily unit generation.

Data sources are as follows:

- **Mid-C day-ahead price:** Attach WUTC 16 2nd Supplemental
- **Unit-specific daily gas price:** Attach WUTC 16-1 1st SUPP CONF, 2022 Chehalis-Hermiston Historical Prices CONF
- **Unit volume:** Attach WUTC 16-1 1st SUPP CONF, 2022 Chehalis-Hermiston Historical Prices CONF (Chehalis dekatherm column) and Attach WUTC 16 3rd SUPP CONF
- **Unit generation:** AWEC Data Request 016, Confidential Attachment AWEC 016-2, confidential folder "23-035-01 CONF Attach EBA FR 6-8 RMP" (Columns 398 and 2291)
- **Unit variable operating cost:** Attach WUTC 16-1 1st SUPP CONF, 2022 VOM data_2021-04_Chehalis-Hermiston CONF

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- **Monthly unit capacity:** 2022 PACMW_Chehalis-Hermiston CONF

Example of Underdispatch - During the peak period on 9/2/22, the average plant costs are [REDACTED] per MWh for Hermiston and Chehalis, respectively. The Mid-C price is [REDACTED] per MWh. Additional revenue at full dispatch is calculated as the revenue from the unit at full dispatch, priced at Mid-C, minus the unit cost.

[REDACTED]

[REDACTED]

[REDACTED]

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Example of Overdispatch - On 12/25/22, the average plant costs are [REDACTED] and [REDACTED] per MWh for Hermiston and Chehalis, respectively. The Mid-C price is [REDACTED] per MWh. Savings at zero dispatch is the difference between average plant costs and the Mid-C price times the unit generation.

[REDACTED]

[REDACTED]

[REDACTED]

- (a) Please explain why Hermiston and Chehalis were not fully dispatched on 9/2/22.
- (b) Please explain why Hermiston and Chehalis were often dispatched at less than an 85% capacity factor during hours when the Mid-C day-ahead price was more than \$100 higher than the plant cost per MWh. In this question, “often”

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means most of the hours, or at least enough hours to result in an average capacity factor of 85% during hours meeting the pricing criterion.

- (c) Please explain why Hermiston and Chehalis were dispatched at a high capacity factor on 12/25/2022 when the day-ahead Mid-C price was significantly lower than the cost to dispatch those two units.
- (d) Please explain why Hermiston and Chehalis were often dispatched at more than a 70% capacity factor when the Mid-C day-ahead price was more than \$30 lower than the plant cost per MWh. In this question, “often” means most of the hours, or at least enough hours to result in an average capacity factor of 85% during hours meeting the pricing criterion.
- (e) If, in its response to subparts (c) or (d) of this question, PacifiCorp provides an explanation that references system reliability or ancillary services, please explain how PacifiCorp was able to ensure system reliability or provide ancillary services during the hours in which both units were offline [REDACTED] hours), Hermiston was offline [REDACTED] hours), and Chehalis was offline [REDACTED] hours).
- (f) If, in its response to any part of this question, PacifiCorp identifies emission limitations or costs that affect the dispatch operations of its natural gas units, please provide a detailed and complete set of data relevant to implementing those limitations or costs on an hourly basis in comparing the dispatch price of natural gas units to market pricing at Mid-C.
- (g) If, in its response to any part of this question, PacifiCorp identifies any misinterpretations of data or incomplete calculations, please provide (1) a detailed and complete explanation of the relevant data and (2) complete data sets with full documentation necessary to perform any calculations described in or suggested by PacifiCorp’s response, please include whether or not PacifiCorp has performed the described or suggested calculations in preparing its response.

Response to WUTC Data Request 30

PacifiCorp objects to this request as overly broad, unduly burdensome, requiring the creation of new data or documents, outside the scope of this proceeding, and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, the Company responds as follows:

As an initial matter, the Washington Utilities and Transportation Commission (WUTC) staff’s analysis is faulty as it does not involve the use of a production

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cost model to simulate optimal dispatch, in WUTC staff's perfect hindsight review. This fault produces results with no consideration of transmission availability, ancillary service requirements, day-ahead gas nominations, daily ambient derates, or the fact that generation is dispatched in accordance with prevailing prices in the western energy imbalance market (EIM), not the Mid-Columbia (Mid-C) day-ahead market. Furthermore, the WUTC staff's conclusions – phrased as questions – are unsupported by work papers. For this reason, WUTC staff's questions are based on faulty and inaccurate premises or assumptions that are unsupported and therefore the Company is unable to provide the requested responses with the exception of those questions analyzing a specific day.

WUTC staff requests that if “PacifiCorp identifies any misinterpretations of data or incomplete calculations” then PacifiCorp should provide “complete data sets with full documentation necessary to perform any calculations”. However, the calculations required involve backward looking production cost modeling runs simulating EIM dispatch decisions, for which Company-modeling datasets/inputs do not exist.

Furthermore, PacifiCorp owns and operates the largest grid in the western United States (U.S.) with 17,100 miles of transmission lines across 10 western states. The Company owns and operates a diverse portfolio of generation resources including 73 generation facilities in eight states – comprised of coal, natural gas, hydroelectric, solar, geothermal and the largest owned wind fleet by a regulated utility in the Western U.S. Therefore, it is infeasible to use spreadsheet analysis to determine optimal dispatch decisions in the manner that WUTC staff has done.

Based on the foregoing conclusions and assertions, the Company provides responds as follows:

- (a) Please refer to Confidential Attachment WUTC 30, which shows that Hermiston and Chehalis were appropriately and economically dispatched (after consideration of prevailing gas nomination restrictions and regulation instructions) on September 2, 2022. This is evidenced by the fact that, inclusive of real-time regulation instructions provided by the Company's energy management system (EMS), the units are dispatched up to their available capacity when the unit's bid price is less than the prevailing locational marginal price (LMP) in the EIM's real-time dispatch (RTD), which is the market that determines the dispatch operating target of these two units. Please also refer to the Company's preamble in this data response above.
- (b) Please refer to the Company's preamble in this data response above.
- (c) Please refer to Confidential Attachment WUTC 30, which shows that Hermiston and Chehalis were appropriately and economically dispatched

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(after consideration of prevailing gas nomination restrictions and regulation instructions) on December 25, 2022. This is evidenced by the fact that, inclusive of real-time regulation instructions provided by the Company's EMS, the units are dispatched up to their available capacity when the unit's bid price is less than the prevailing LMP in the EIM's RTD, which is the market that determines the dispatch operating target of these two units. Please also refer to the Company's preamble in this data response above.

(d) Please refer to the Company's preamble in this data response above.

(e) Please refer to the Company's preamble in this data response above.

(f) Please refer to the Company's preamble in this data response above.

(g) Please refer to the Company's preamble in this data response above.

Confidential information is provided subject to WAC 480-07-160 and the protective order that has been issued in this proceeding.

PREPARER: Ramon Mitchell

SPONSOR: Ramon Mitchell