

**PUBLIC UTILITY COMMISSION OF OREGON  
STAFF REPORT  
PUBLIC MEETING DATE: July 16, 2019**

REGULAR  X  CONSENT       EFFECTIVE DATE  July 16, 2019

**DATE:** July 8, 2019

**TO:** Public Utility Commission

**FROM:** JP Batmale

**THROUGH:** Jason Eisdorfer **SIGNED**

**SUBJECT:** PACIFIC POWER: (UM 1857) Staff Recommendation on Advancements to Storage Potential Evaluation Plan.

**STAFF RECOMMENDATION:**

Approve Pacific Power's (PacifiCorp or Company) Energy Storage Potential Evaluation Plan, meaning that the Company has advanced its energy storage potential modeling capabilities to Staff's satisfaction in compliance with the stipulation requirements adopted in Order No. 18-327.

**DISCUSSION:**

Issue

Whether the Public Utility Commission of Oregon (OPUC or Commission) should approve the work accomplished by PacifiCorp to propose a plan to revise its Energy Storage Potential Evaluation methodology to meet the modeling requirements in the stipulation adopted in Order No. 18-327.

Applicable Law or Rule

House Bill (HB) 2193 (2015) directed large Oregon electric companies to submit proposals to develop qualifying energy storage systems with the capacity to store at least 5 MWh of energy and required a comprehensive evaluation of the potential to store energy in the electric company's system (energy storage potential evaluation). The Commission, with substantial input from Staff and stakeholders, developed a framework and specific requirements for the electric company's system-wide energy storage potential evaluation in Order Nos. 16-504, 17-118, and 17-375.

## Analysis

### *Background*

On September 4, 2018, the Commission issued Order No. 18-327 adopting a stipulation between PacifiCorp, Staff, and the Oregon Citizens' Utility Board (CUB) (stipulating parties) that offered a path forward for two energy storage projects and for revisions to PacifiCorp's Energy Storage Potential Evaluation. The stipulating parties agreed to the following related to the Company's energy storage potential evaluation model:

- Update the plan for the energy storage potential evaluation model by detailing the incremental steps to advance the model's capabilities to estimate all benefits, including sub-hourly benefits, for each of the seventeen energy storage use cases.<sup>1</sup> The plan should also include a clear set of milestones to develop the tools and/or analysis necessary to advance PacifiCorp's energy storage system benefit modeling. The plan must be submitted within 90 days of stipulation approval.
- Staff would make best efforts to recommend approval of the energy storage potential evaluation plan no later than 90 days after PacifiCorp's filing.
- Upon approval from Staff, the Company would implement the approved plan and include the newly estimated benefits and costs from its pilot project, no later than June 3, 2019.

PacifiCorp filed its compliance report in accordance with the stipulation on December 3, 2018. Due to staffing changes, Staff was unable to review the filing and recommend approval of the energy storage potential evaluation plan within 90 days. Staff filed a motion to extend Staff's review period to the July 16, 2019 regular public meeting and to allow PacifiCorp to make its second compliance filing implementing the plan and including the newly estimated benefits and costs associated with the ESS pilot within 90 days of Commission action on the plan.

### *Planned Improvements to the Energy Storage Potential Evaluation Model*

In its compliance filing, PacifiCorp proposed a plan that includes the following incremental steps, along with a schedule of adoption, to improve its energy storage potential evaluation model so that it better captures the benefits and costs associated with storage systems on its grid:

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<sup>1</sup> See UM 1857, Order No. 17-375, pg. 5 of Appendix A, for the complete list of each use case and a description.

- For use-cases that can be calculated via the IRP, the Company will utilize data from the upcoming 2019 IRP's Flexible Resource Needs Assessment and Flexible Supply Forecast to inform storage use-cases such as regulation, load following, spinning reserves, non-spinning reserves, frequency response, and blackstart.<sup>2</sup>
- For use-cases that the Company considers too granular for IRP models to develop or capture a value (e.g., outage mitigation), PacifiCorp will leverage data and analysis from various customer-focused sources. This includes: the Community Resiliency Pilot Program and bill analysis (e.g., benefits from demand charge or time-of-use charge reductions).
- For transmission and distribution (T&D) capacity deferral benefits, PacifiCorp proposes to use their T&D planning tool to determine the value of non-wires solutions.
- Finally, the 2019 Integrated Resource Plan (IRP) will combine all these inputs to identify and determine cost-effective applications of energy storage systems across all use cases. The IRP will also include the forecasted need for each use-case, and co-optimized benefits. This overall analysis – and associated discussion – will be updated as part of every filed IRP.

#### *Staff Review and Response*

Staff finds that the Company's plan is a reasonable improvement to PacifiCorp's Energy Storage Potential Evaluation that meets the requirements set forth in the stipulation. Therefore, Staff recommends that the Commission approve the plan.

However, Staff notes that PacifiCorp's filing does not directly address the calculation of sub-hourly benefits across all seventeen energy storage use-cases as called for in Order No. 18-327. Staff will work with PacifiCorp to ensure that sub-hourly benefits are more readily identified in any new estimation of benefits and costs for the proposed energy storage pilot as contemplated by Staff per the stipulation. Staff will also work with the Company through the IRP process, and other applicable processes, so that future energy storage potential evaluations more clearly identify sub-hourly benefits.

Finally, Staff appreciates the patience and professionalism of PacifiCorp and its staff with regard to Staff's review period.

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<sup>2</sup> See UM 1857, PacifiCorp Compliance Filing, Dec. 3, 2018, pg. 1.

Conclusion

PacifiCorp's revised energy storage potential evaluation plan meets the criteria set forth in the stipulation adopted by the Commission in Order 18-327. Therefore, Staff recommends Commission approval of the plan. Staff will continue to stay engaged with PacifiCorp to ensure sub-hourly benefit calculations are developed and incorporated into future energy storage potential evaluations.

**PROPOSED COMMISSION MOTION:**

Approve PacifiCorp's Energy Storage Potential Evaluation Plan, meaning that the Company has advanced its energy storage potential modeling capabilities to Staff's satisfaction in compliance with the stipulation requirements adopted in Order No. 18-327.