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***VIA ELECTRONIC FILING***

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 COMMISSION

**RE: Commercial and Industrial Demand Response Program under Schedule 106**

PacifiCorp d/b/a Pacific Power & Light Company (PacifiCorp or the Company) proposes the enclosed commercial and industrial demand response program. PacifiCorp respectfully requests a December 23, 2022, effective date.

**Purpose**

On August 26, 2022, PacifiCorp's new Schedule 106—Demand Response Programs went into effect, enabling a broad scope of demand response programs in Washington. As discussed in the process outlined in the Company's Clean Energy Implementation Plan<sup>1</sup> and advice letter submitted in Docket UE-220550, the Company proposes the following:

- Introduce a commercial and industrial demand response program using the provisions of Schedule 106.
- Position commercial and industrial demand response program costs for recovery through a deferral account.

**I. Demand Response is a Resource in the Clean Energy Implementation Plan**

This filing is part of the continuing implementation of resources identified in the 2019 IRP and further outlined in the actions specified in the Clean Energy Implementation Plan as part of the Company's compliance with the Washington Clean Energy Transportation Act (CETA).

The Company's demand response request for proposals (RFP) issued on February 8, 2021, was a key component of identifying resource types and costs that were modeled and used to establish the demand response target. The Company emphasized in its RFP that bidders include programs in Oregon or Washington service areas and products that achieve at a minimum 3 megawatts (MW) in three years, scalable to 25 MW over five to 10 years. The Company received bids from 18 firms covering multiple programs for multiple sectors. RFP bids were scored based on cost, volume, and equity criteria and the top bid for each program category was selected for inclusion into the 2021 Integrated Resource Plan (IRP) model.

<sup>1</sup> PacifiCorp 2021 Clean Energy Implementation Plan, Chapter 3.

Each program category represents a discrete set of customer end uses, e.g., commercial, or industrial or residential water heating. Modeling in the IRP reflects the top bid because all bids within a program category rely on the same pool of customers. Costs were characterized via RFP bids and the Conservation Potential Assessment (CPA) and compared against supply side resources. The modeling identified a need for demand response not just in the short term, but throughout the planning horizon (2021–2040) of the Company’s 2021 IRP preferred portfolio. Demand response needs for Washington were further clarified in the Company’s Clean Energy Implementation Plan (CEIP)<sup>2</sup> where 37.4 MW of demand response were targeted through 2025.

The proposed program development strategy for demand response is outlined in Chapter 3 of the Clean Energy Implementation Plan<sup>3</sup> and this filing is designed to support and align with that strategy. The strategy reflects that the Company did not offer any demand response programs in Washington. Specifically, prior to filing demand response programs, PacifiCorp will share proposed program characteristics, budgets, implementation, and evaluation strategies, and cost-effectiveness methodologies to facilitate feedback and guidance of stakeholders, in particular relying on the DSM Advisory Group (and consultation with the Equity Advisory Group). These meetings, in conjunction with email communications in which supporting information is shared, will be pivotal in helping the company develop programs and refine assumptions. Feedback will then be incorporated into a draft filing which will be shared with the DSM Advisory group to gather additional feedback. Programs, such as the commercial and industrial program, will be filed independently to allow for flexibility and increase efficiency in the launch of programs. This program will be in addition to the irrigation demand response program recently approved in UE-220550.

## **II. Using the provisions of Schedule 106 to add a Demand Response Program**

As outlined in UE-220550, Schedule 106 is intended to enable multiple demand response programs. Each new demand response program will be filed with the Commission and will include the information found on the website, a deferral request (filed after program approval), cost effectiveness, the proposed evaluation and reporting schedule, and other details that may be required to support an approval request.

As outlined in UE-220550, the Company expects to review each program delivered under Schedule 106 annually for performance and the need for any changes. The Company will generally consider changes to its programs annually, though a program that is performing well may not require annual changes. Conversely, the Company may propose changes more frequently than annually if there is compelling market data. To initiate a change using this process, the Company will follow the process outlined in UE-220550<sup>4</sup>, presenting information to the DSM Advisory Group (and consult with the Equity Advisory Group), and seek comments prior to making changes. The Company will respond to stakeholder’s comments, including

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<sup>2</sup> Available online [https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/ceip/PAC-CEIP-12-30-21\\_with\\_Appx.pdf](https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/ceip/PAC-CEIP-12-30-21_with_Appx.pdf). See pp 22-23 for demand response target and calculations.

<sup>3</sup> Ibid, p. 83

<sup>4</sup> Exhibit D

reasoning, and any proposed resolution to issues raised and provide back to the stakeholders. The Company will clearly post the notice of change(s) to the program website with at least 45 days advance notice. The change process anticipated for programs administered under this Schedule is similar to the process utilized by the Company for energy efficiency program design and many of its incentive or requirement changes.

Based on stakeholder conversation during review and approval of the irrigation filing referenced above, the Company will not use the proposed change process to make changes to Schedule 106, remove or add pilots/programs to Schedule 106, as those substantive changes will require filing for approval.

### **III. Commercial and Industrial Program**

PacifiCorp proposes to establish a demand response program for its Washington commercial and industrial customers under Schedule 106, as described in the following sections A through F. The first five years of the Washington commercial and industrial selections from the 2021 IRP are provided in Table 1.

**Table 1 - Washington Commercial and Industrial selections in the 2021 IRP**

	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
Incremental MW (gen)	7.98	7.89	0	0	0
Cumulative MW (gen)	7.98	15.96	15.96	15.96	15.96

#### **A. Commercial and Industrial Program Period, Size and Grid Services Provided**

The Company is proposing an ongoing commercial and industrial demand response program without an end date to align with ongoing capacity needs in 2021 IRP period (2021-2040). The four product categories; hour-ahead, 20 minute-ahead, seven minute-ahead and real time (no notice) options provide curtailment, regulation reserve, contingency reserve and frequency response grid services to the Company and are included in the impacts included in Table 2.

**Table 2 - Commercial and industrial program impacts and participation estimates<sup>5</sup>**

	<b>2022*</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
Incremental MW <sup>6</sup> (gen)	21.4	5.3	0	0	0
Cumulative MW (gen)	21.4	26.7	26.7	26.7	26.7
Participants (inc. sites)	40	10	0	0	0

\*Participation in 2022 will vary depending on when the program is approved. Customers can enroll the approved program anytime during the year. At this point in the year, any 2022 participants and enrolled MW should be considered as available for 2023 (and additive to the 2023 impacts in Table 2).

<sup>5</sup> Represent expected impacts and costs but ramping may occur more quickly than presented. If additional eligible MWs and participants are enrolled, the resultant totals may exceed totals presented.

<sup>6</sup> MW volumes represent maximum capacity available during a given year.

**Table 3 – Estimated Impacts by product category**

<b>Product Category</b>	<b>Percentage of total impacts in Table 2</b>
Hour-ahead	33
20 minute-ahead	33
Seven minute ahead	17
Real time (no notice)	17

**B. Delivery of the Program**

PacifiCorp has selected Enel X to deliver the program. They were the successful bidder in the 2021 Demand Response RFP (described above) to deliver these services for PacifiCorp's customers in Oregon and Washington. They are also delivering demand responses services for the same customer group in the Rocky Mountain Power service territory.

Enel X is responsible for the installation, operation and maintenance of the load control devices, dispatch of the devices as directed by the Company, customer participation, customer service, and issuance of customer incentives. Enel X also provides a software application to all participating customer sites. The customer application allows participating customers to benchmark, manage, and optimize their energy consumption both during demand response events and during normal business operations.

The commercial demand response program is part of an overall equity approach by PacifiCorp to make demand response programs available to all customer classes. The program will be focused on enrolling the highest connected end use loads available during the dispatch period(s). Some of these customers may be located in the Highly Impacted Communities and participation by these businesses will be tracked.<sup>7</sup> Direct participant benefits from the program include incentive payments. Other participant benefits may include better public image and/or satisfaction/pride from preventing outages and being green.<sup>8</sup>

Enel X is a strong supporter of diverse businesses and has experience utilizing diverse subcontractors, including those installing and maintaining hardware at customer sites and is actively researching and contacting diverse contractors in the region.<sup>9</sup> The Enel X team delivering or supporting this program includes a diverse work force.

The commercial and industrial program will operate as a complement to the non-residential time of use pilot<sup>10</sup>. To ensure the two offers are positioned to deliver useful information about customer acceptance of the incentive offers and their ability to shift usage in response to these offers, customer participation by meter will be limited to the commercial and industrial demand

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<sup>7</sup> CEIP, Table 6.1 CBIs and Metrics, Participation in company energy and efficiency programs and billing assistance programs.

<sup>8</sup> CEIP, Table 3.10, Examples Non-Energy Benefits and Costs of Demand Response Programs.

<sup>9</sup> Equipment installation and maintenance budget is approximately \$34,000.

<sup>10</sup> Schedule 29 filed in UE-210532 effective February 1, 2022.

response program or the Schedule 29 time of use pilot. A meter may not enroll in more than one offer. This requirement will be included in Exhibit B.

### **C. Commercial and Industrial Program Costs**

Estimated costs for the commercial and industrial demand response program are provided in the Table 3 and include vendor costs, customer incentives, customer outreach/advertising, evaluation, measurement and verification (EM&V), interval meter upgrades and utility staffing costs directly attributable to managing the program. These costs include the impact of all customers participating with hour ahead notice and delivering the capacity impacts provided in Table 2.

**Table 3 - Commercial and Industrial Program Costs**

	<b>2022*</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
Total Program Costs <sup>11</sup>	\$ 1,859,633	\$ 2,145,251	\$ 2,153,984	\$ 2,153,984	\$ 2,132,014

\* Participation in 2022 will vary depending on when the program is approved. Customers can enroll in the approved program anytime during the year. At this point in the year, any 2022 costs should be considered as incurred in either 2022 or 2023 (and additive to the 2023 costs in Table 2).

### **D. Cost Effectiveness**

The Company is using the 2016 California Demand Response Protocol for estimating cost-effectiveness of programs. A Total Resource Cost perspective will be provided prospectively when seeking Commission approval for a new demand response program and retrospectively as part of the annual reporting. The cost effectiveness perspective provided will be similar to information on energy efficiency programs in Washington. Cost effectiveness analysis for this program is similar to the irrigation demand response program recently approved in UE- 220550.

Cost effectiveness for each of the four product categories in the commercial and industrial demand response program is provided in Confidential Exhibit A. All product categories are cost effective from the utility cost and total resource cost perspectives when ten years of benefits and costs are compared. The seven minute and real time product results are sensitive to the utility need for and utility value of reserves in 2025 and beyond. The forecast for increased utility-scale battery installations diminishes the reserve value in outer years. However, actual price and implementation schedule for utility-scale batteries in the upcoming years is uncertain, and therefore results for these products are relatively conservative. In addition to reserve and capacity benefits, the real time product also provides frequency response services for the Company. Frequency events are unpredictable and difficult to model on a prospective basis, therefore a deferred utility resource is used to approximate the value of solving issues related to frequency events using a utility supply side resource. A summary of cost-effectiveness results over a ten-year horizon are summarized below in Table 4.

<sup>11</sup> Additional detailed cost breakouts can be found in Confidential Exhibit A.

**Table 4 - Commercial and Industrial Program Cost-Effectiveness Results**

<b>Program Dispatch Scenario</b>	<b>TRC</b>	<b>UCT</b>
Hour-ahead	1.3	1.2
20-minute	1.6	1.3
Seven-minute	1.5	1.3
Real time	1.2	1.0

### **E. Cost Recovery**

PacifiCorp proposes to recover the approved commercial and industrial demand response program costs through Schedule 191 but is not proposing a change to Schedule 191 as part of this filing. Once the commercial and industrial demand response program is approved, the Company will file a petition to defer the costs incurred through this program for later recovery through Schedule 191. Using a deferral account will provide an additional tool for PacifiCorp to manage the timing of cost recovery and mitigate, to the extent possible, customer bill impacts.

### **F. Annual Reporting**

PacifiCorp will provide an annual report for the commercial and industrial program following one full year of program operation. Annual reporting will at a minimum provide summary of program activities, costs, and accomplishments, future changes under consideration, feedback received, and other items that are requested by the Company's Washington DSM Advisory Group. Annual reporting for demand response programs for the prior year will be included as an attachment to the clean energy progress and compliance reports due July 1 of each year. Drafts of the demand response report will be provided to the DSM Advisory Group at least 30 days ahead of the July filing.

### **Stakeholder Involvement – Planning, Procurement, and Program Design**

Stakeholder engagement was an integral part of pursuing demand response acquisitions with a demand response RFP. Key activities tied to the demand response are provided in summary form and are in addition to commercial and industrial load management activities described later.

On January 21, 2020, PacifiCorp held a CPA workshop meeting in the 2021 IRP public input process. Highlights included review prior IRP/CPA comments, proposed CPA methodologies for demand response, interactions between demand response and pricing/rates options.

On February 18, 2020, PacifiCorp held a technical workshop in the 2021 IRP public input process. Highlights included further defining the grid services a demand response resource can provide and IRP credits for demand response.

On April 14, 2020, PacifiCorp held a stakeholder meeting interested in demand response. Highlights included background information on existing demand response programs, review of

demand response in 2019 IRP, review of demand response potential in the conservation potential assessment, discuss pilot concepts and gather input on how to structure or focus a demand response RFP.

On April 16, 2020, at its regular IRP public input meeting, PacifiCorp shared information on the demand response stakeholder meeting with the broader IRP audience.

On June 18 & 19, 2020, PacifiCorp held an IRP public input meeting, which included 2019 IRP Action Item 4 acknowledgement with demand response conditions and draft RFP schedule shared with broader IRP audience.

On August 28, 2020, PacifiCorp held an IRP CPA Technical Workshop. Highlights included an assessment of demand response resources, assessment methodology, transition to grid services view of demand response, development of demand response costs, draft potential results (short and long duration, winter and summer) and a demand response RFP update.

On October 22, 2020, PacifiCorp held an IRP public input meeting. Highlights included demand response ramp rates, battery storage assumptions, types of demand response costs used in the levelized calculation, demand response cost bundles.

On October 14, 2020, Johnson Consulting Group was hired to: Research demand response technical vendor requirements, summarize demand response RFPs that have been issued by other energy organizations, assist in developing a simple Request for Qualifications (RFQ) template to identify potential vendors, assist in the distribution of the RFQ to ensure it is widely circulated to encourage a robust response rate, Conduct in-depth interviews with up to 15 potential demand response vendors to identify market barriers, opportunities, and critical elements that should be addressed in a forthcoming demand response RFP, summarize key elements and essential components that should be considered in developing a demand response RFP and a demand response RFQ.

On October 22, 2020, PacifiCorp held an IRP Public input meeting. Highlights included demand response ramp rates, battery storage assumptions, types of demand response costs used in the levelized calculation, demand response cost bundles.

On November 2, 2020, PacifiCorp posted the RFQ for bidders to the following website: <https://www.pacificorp.com/suppliers/rfps/demand-response-rfp-2021.html>. RFQ responses were due on or before November 23, 2020, and were intended to build the bidders list for the RFP and help to expand our outreach to a range of suppliers. The RFQ also asked respondents to provide some brief descriptions of potential programs and also asked for Oregon pilot ideas, response to stakeholder interests. The RFQ was also posted to Peak Load Management Alliance, Association of Energy Service Professionals, International Energy Program Evaluation Conference, Energy Central, and ESource in order to reach a broad audience.

On February 8, 2021, PacifiCorp released the RFP to 26 bidders registered in the Company's on-line procurement system.

On February 9, 2021, PacifiCorp filed the RFP with the Washington Utilities and Transportation Commission under Docket UE - 210088.

On March 15, 2021, the Company received RFP responses from 18 different organizations.

On April 23, 2021, PacifiCorp held an IRP public input meeting. Highlights included updates on All Source 2020 and the demand response RFPs.

On June 25, 2021, PacifiCorp held an IRP public input meeting. Highlights included update on demand response selected by the System Optimizer model selections from the 2021 demand response RFP.

On August 27, 2021, PacifiCorp held an IRP public input meeting highlighting the 2021 preferred portfolio action plan with demand side management actions.

On October 19, 2021, PacifiCorp held a technical workshop on proposed CEIP utility actions to meet CETA requirements, specifically highlighting demand response actions, including commercial and industrial load control, that the Company intended to undertake as part of the CEIP.

On October 20, 2021, PacifiCorp met the Equity Advisory Group (EAG) on proposed CEIP utility actions, specifically highlighting demand response actions, including commercial and industrial load control, that the Company intended to undertake as part of the CEIP.

On November 10, 2021, PacifiCorp held a technical workshop on the draft CEIP and discussed prospective capacity volumes and costs associated with demand response actions identified in the CEIP.

On November 15, 2021, PacifiCorp met with the demand response advisory council staff lead from the Northwest Power and Conservation Council and discussed the California Demand Response Protocol utilized by PacifiCorp for evaluating their programs. Discussion focused on similarities between the council' approach and the protocol and how costs and benefits were included in the total resource cost test calculations.

On November 17, 2021, PacifiCorp met with the EAG providing further detail on draft demand response actions included in the CEIP.

On April 13, 2022, the Company presented the draft program requirements, participation parameters for discussion and requested specific feedback from the EAG regarding program marketing and partnership strategies.

On April 28, 2022, the Company presented both draft irrigation program information and general information on cost effectiveness, reporting and cost recovery for demand response to the Washington DSM advisory group.





Enclosures

NEW-PAC-Exhibit-A-11-16-2022 (C).zip

- NEW-PAC-Exhibit-A-C&I-Curtailment-WA-7-min-Product-11-16-2022 (C).xlsm
- NEW-PAC-Exhibit-A-C&I-Curtailment-WA-20-min-Product-11-16-2022 (C).xlsm
- NEW-PAC-Exhibit-A-C&I-Curtailment-WA-hour-ahead-Product-11-16-2022 (C).xlsm
- NEW-PAC-Exhibit-A-C&I-Curtailment-WA-Real-Time-Product-11-16-2022 (C).xlsm

NEW-PAC-Exhibit-A-11-16-2022 (R).pdf

NEW-PAC-Exhibit-B-11-16-2022.pdf