ITEM NO. CA1

PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: May 5, 2022

REGULAR ____ CONSENT _X_ EFFECTIVE DATE _______May 6, 2022_______

DATE: April 25, 2022

TO: Public Utility Commission

FROM: Nick Sayen

THROUGH: Bryan Conway, JP Batmale, and Sarah Hall **SIGNED**

SUBJECT: PACIFIC POWER:
(Docket No. ADV 1383/Advice No. 22-004)
Introduces Schedule 106 and irrigation demand response program, proposes cost recovery through Schedule 291, and cancels Schedule 105.

STAFF RECOMMENDATION:

Approve Pacific Power's (Company or PacifiCorp) Advice No. 22-004.

DISCUSSION:

Issue

Whether the Oregon Public Utility Commission (Commission) should authorize: 1) introduction of Schedule 106, enabling demand response programs; 2) cancellation of Schedule 105, the irrigation load control pilot; 3) introduction of an irrigation demand response program; 4) and recovery of irrigation demand response program costs through Schedule 291.

Applicable Rule or Law

PacifiCorp makes this filing pursuant to ORS 757.205, OAR 860-022-0025, and OAR 860-022-0030.

- ORS 757.205 requires public utilities file to all rates, rules, and charges with the Commission.
- ORS 757.220 requires utilities to file changes to any rates, tolls, charges, rules or regulations with at least 30 days before the effective date of the changes. The

Commission may approve tariff changes on less than 30 days' notice for good cause shown.

- OAR 860-022-0025 requires that revised tariff filings include statements showing the change in rates, the number of customers affected and resulting change in annual revenue, and the reasons for the tariff revision.
- OAR 860-022-0030 requires that tariff filings which result in increased rate include statements showing the number of customers affected, the annual revenue under existing schedules, the annual revenue under proposed schedules, the average monthly bills under existing and proposed schedules, and the reasons supporting the proposed tariff.

Analysis

This memo provides background and summary of the Company's proposed changes, discussion of stakeholder involvement, and brief review of impacts to other programs. The memo concludes with Staff's recommendation to approve the Company's filing.

Background

Pacific Power currently operates one demand response (load control, or load management) program in Oregon, an irrigation load control pilot. This pilot began operating in 2016 and dates to the Company's 2015 Integrated Resource Plan (IRP). Pacific Power's 2015 IRP selected capacity resources from irrigation load management in Oregon beginning in 2022. Neither of the Company's 2017 or 2019 IRPs selected additional capacity resources from demand response in Oregon. However, in the 2019 IRP Staff and stakeholders recommended the Company pursue additional demand response capacity through a request for proposals (RFP). In acknowledging the 2019 IRP, the Commission adopted this suggestion attaching conditions to Action Item No. 4 which require, in part, that:

> PacifiCorp pursue demand response acquisition with a demand response RFP.
>
> PacifiCorp should work with non-bidding stakeholders from Oregon and other interested states to determine whether PacifiCorp should move forward with cost-effective demand response bids, or with a demand response pilot, or both.[1]

As Pacific Power notes in this filing, the proposals herein are part of the continuing implementation of those conditions. The RFP was issued on February 8, 2021. The request emphasized that bidders include programs in the Company's Oregon or

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[1] *See* Order No. 20-186, page 22, https://apps.puc.state.or.us/edockets/orders.asp?OrderNumber=20-186.

Washington service areas, and products that achieve at least 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 and sectors. Bids were scored based on cost, volume, and equity criteria, and considered by program category. Each category represented a discrete set of customer end uses, such as irrigation or residential water heating. The top bid for each program category was selected for inclusion in the 2021 IRP modeling.

In the IRP modeling, costs were characterized via RFP bids and the IRP 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). The 2021 IRP preferred portfolio included the addition of 33 MW of cost-effective demand response covering multiple customer types and programs in Oregon for 2022, with additional MWs being brought on in subsequent years.

From discussions with Pacific Power, Staff understands this filing is a response to the needs identified in the IRP modeling and the results of the RFP. The Company communicated it intends to propose several demand response programs in the coming months, including the irrigation program discussed below, and possibly a commercial and industrial program, and a residential program. Staff encouraged the Company to consider a portfolio approach to the administration of these programs. For example, Staff suggested establishing when possible consistent program budgeting practices, program calendars, reporting processes, and regulatory filings. Staff noted Portland General Electric's recent adoption of a Flexible Load Plan as an example of a portfolio approach to demand response program administration.[2]

Summary of proposed changes

1. *Introduction of Schedule 106*

Pacific Power proposes a new Schedule 106 to enable demand response programs such as those noted above. The proposed tariff outlines basic enabling elements which would be applicable to the multiple programs. Examples of the elements defined in the tariff include:

- Availability. The programs will be available in all territory served by Company in the State of Oregon.

[2] *See* Docket No. UM 2141, https://apps.puc.state.or.us/edockets/DocketNoLayout.asp?DocketID=22696.

- Applicability. All customers served by the Company in the State of Oregon taking service under the Company's Delivery Service Schedules listed on Schedule 291 – System Benefits Charge are eligible to participate in the programs, subject to criteria listed for each individual program.
- Participation. Customer participation in each program is voluntary and is initiated by following the participation procedures listed on the website.
- Program administrator. A qualified person or entity may be hired by the Company to administer the programs.
- Provisions of service. These include the following:
    - Incentive amounts, participation requirements, and procedures will be listed on the website.
    - Incentive delivery may vary by program and may include cash payments and/or bill credits.
    - Incentives may be offered year-round or for selected time periods.
    - Incentive amounts, participation requirements, and procedures may be changed to enhance program cost effectiveness, improve participation, reflect quality assurance findings or market information.
    - All changes will occur with a minimum of 45-day notice and be prominently displayed as a change on the demand response section of the website.
    - The Company and/or program administrator will employ a variety of quality assurance techniques during the delivery of the program. They may differ by program and may include, but are not limited to, site inspections, phone surveys, and confirmation of customer eligibility.
    - The Company may verify or evaluate the demand response impacts at customer sites. Verification or evaluation may include, but are not limited to, telephone survey, site visit, billing analysis, pre- and post-installation of monitoring equipment as necessary to quantify demand response impacts.

Should the Company seek to make changes to Schedule 106 in the future it would engage in the typical regulatory tariff revision process. Should the Company seek to add a new demand response program it would file with the Commission for approval prior to being implemented. The filing would include program information, budget and deferral request, cost effectiveness evaluation, reporting schedules, and other details that may be required to support Commission approval.

Each demand response program will require specific details separate from the basic enabling elements defined in Schedule 106. Examples of these details include:

- Eligibility requirements;
- Dispatch season and timing;
- Event dispatch notifications;

- Customer incentive levels.

Typically, these programmatic details are included in such a tariff.[3] However, in this filing Pacific Power propose that these specific programmatic details will not be included in Schedule 106. Instead, the Company will create a section of the Pacific Power website for each program, and the details will be included there. Further, Pacific Power proposes that should the Company seek to make changes to specific programmatic details – those noted above reserved for the website – it would not be required to engage in the typical regulatory tariff revision process. Instead, the Company would:

- Clearly post a notice of change(s) to the program website with at least 45 days advance notice. Proposed changes to program information will include a date and log of changes to help track amendments during the change process.
- Notify stakeholders and Staff of upcoming changes using Pacific Power's demand response mailbox and the Commission's service docket list.
- Seek comments prior to making the changes.
- Post comments received from stakeholders and the Company's responses, reasoning, and any proposed resolution to issues raised in those comments to the program website.

This process is outlined with further detail in Exhibit E of this filing. Pacific Power notes that this change process would be similar to the process utilized by the Energy Trust of Oregon for energy efficiency program design and many of its incentive or requirement changes. Staff reviewed Exhibit E and found it is fairly consistent with Energy Trust practices.

Pacific Power anticipates reviewing each program delivered under Schedule 106 annually for performance and the need for changes. While the Company expects to consider changes to its programs annually, a program that is performing well may not require annual changes. Conversely, the Company may propose changes more frequently if program performance or market data require it.

Staff summarizes the distinction between changes that would and would not involve Commission notification and approval in the table below.

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[3] *See* for example Pacific Power Schedule 105 (discussed below), https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/rates-regulation/oregon/tariffs/rates/105_Irrigation_Load_Control_Program_Pilot.pdf, and
PGE Schedule 26,
https://assets.ctfassets.net/416ywc1laqmd/58Ec9RPWBJIL6E6UHYE2of/d3fbe403fcf5e9f138c533d99343b663/Sched_026.pdf, and
Idaho Power Schedule 74, https://docs.idahopower.com/pdfs/aboutus/ratesregulatory/tariffs/285.pdf.

Table 1 – Changes that would and would not require Commission notification and approval, or require the typical regulatory tariff revision process

Changes that would require Commission notification/approval/regulatory tariff revision process:	**Changes that would not require Commission notification/approval/ regulatory tariff revision process:**
1. Changes to Schedule 106 2. Add pilots/programs covered by Schedule 106 3. Remove pilots/programs covered by Schedule 106 4. Propose an increase of expenditures greater than 130% of total estimated annual budgets for programs covered by Schedule 106	1. Eligibility requirements: customer class or technical criteria 2. Dispatch periods, days, and hours 3. Dispatch events and duration 4. Event dispatch notification 5. Customer incentive levels 6. Event opt-out parameters

Staff met with the Company as it was developing this filing and reviewed this approach in those discussions. Staff then requested that several of the procedures discussed above. These requests were: a date and log of proposed changes to programmatic information to help track amendments, and the requirement to engage in the Commission regulatory tariff revision process for proposed program expenditure increases greater than 30 percent.

Staff supports the approach proposed by the Company as it balances programmatic flexibility, and procedural predictability and transparency for stakeholders, and focuses Commission time on the most consequential tariff revisions. Staff recommends Pacific Power work to ensure environmental justice stakeholders are included in the outreach process outlined in Exhibit E. This may include activities such as recruiting environmental justice stakeholders to the Company's demand response mailbox and engaging with the Company's Clean Energy Plan Utility Community Benefits and Impacts Advisory Group, or its Distribution System Planning Community Input Group.

The Company proposes to continue using the 2016 California Demand Response Protocol, recommended in Staff's memo approving the Company's original irrigation pilot, to guide its cost effectiveness assessment.[4] Cost-effectiveness from a Total Resource Cost and Utility Cost Test perspective will be provided prospectively when seeking Commission approval for a new demand response program and retrospectively as part of the annual reporting. Staff supports continuation of this approach until the Commission establishes a different cost-effectiveness approach.

[4] *See* Docket No. ADV 242, Staff Report, page 5, https://apps.puc.state.or.us/edockets/edocs.asp?FileType=HAU&FileName=adv242hau16236.pdf.

2. Cancellation of Schedule 105

As noted earlier, Pacific Power currently operates one demand response program in Oregon, an irrigation load control pilot. The pilot is limited to a maximum 0.5 MW demand capacity and is limited to irrigation customers in the Klamath Basin and customers in other targeted areas served by sub-stations with potential to defer traditional investments.

The Company had previously committed to providing a recommendation regarding continuation of the pilot after the 2021 season.[5] Following discussions with Staff, Pacific Power agreed to use a third-party evaluator as part of informing the 2021 recommendation.[6] Included in this filing as Exhibit C is the post-2021 season report from Applied Energy Group. The report notes that although the pilot operated with a small number of participants, it delivered consistent capacity reduction in addition to numerous programmatic learnings. Importantly, the report recommends the pilot be expanded to all irrigation customers in Oregon based in part on the selection of the irrigation resource within the 2021 IRP and participating customer feedback.

Based on this recommendation and the Company's proposed replacement program discussed below, Staff supports the cancellation of the Schedule 105.

3. Introduction of an irrigation demand response program

With this filing Pacific Power proposes to replace the irrigation load control pilot with an expanded irrigation demand response program (expanded program). The expanded program would be covered by Schedule and program does not have an end date, in alignment with ongoing capacity needs in the 2021 IRP period. Staff notes select features of the expanded program below, while additional details of the program can be found in Exhibit B of this filing:

- Eligibility: Irrigation customers on Delivery Service Schedules 41 or 48, in all areas of the Company's Oregon territory, with pumps greater than or equal to 25 horsepower running at least 200 hours in the dispatch season;
- Dispatch season, hours, and duration: June 1 through week including September 15, 12:00 p.m. to 10:00 p.m. Pacific, up to 4 hours;
- Dispatch constraints: Up to 20 events per year, up to 52 hours per year;
- Dispatch notification and incentives:

[5] *See* Docket No. ADV 989, Initial Utility Filing, page 5, https://apps.puc.state.or.us/edockets/edocs.asp?FileType=UAA&FileName=adv989uaa155756.pdf.
[6] *See* Docket No. ADV 989, Staff Report, page 7, https://apps.puc.state.or.us/edockets/edocs.asp?FileType=UAA&FileName=adv989uaa155756.pdf.

  - Day ahead notification = $18/kW per year
  - Hour ahead notification = $30/kW per year
  - 22.5 minute ahead notification = $45/kW per year;
- Reporting: Pacific Power will continue to provide an annual report by March 31 the following year with the same content and format as irrigation pilot reports.

The expanded program would provide capacity and energy grid services through the day-ahead and hour-ahead notice options provides. It could also provide regulating reserves if customers elect to participate with a 22.5-minute notification. Pacific Power estimates the expanded program will achieve demand capacity of approximately 20 MW in 2022, reaching nearly 42 MW in 2026. This amount aligns closely with the amount of capacity from Oregon irritation selected by the 2021 IRP.

The expanded program will be delivered by Connected Energy, which delivered the predecessor irrigation pilot since 2018 and was the successful bidder in the 2021 RFP. Connected Energy is responsible for the installation, operation and maintenance of the irrigation load control devices, dispatch of the devices as directed by the Company, customer participation, customer service, and issuance of customer incentives.

Estimated costs for the expanded program are included in this filing and are presented in the Staff-generated table below. These include vendor costs, customer incentives, customer outreach/advertising, evaluation, measurement and verification, and utility staffing costs directly attributable to managing the program. These costs assume the impact of all customers participating with hour ahead notice.

Table 2

	2022	**2023**	**2024**	**2025**	**2026**
Total Program Costs	$2,027,125	$1,860,915	$2,238,451	$1,942,257	$1,999,190

The expanded program's cost effectiveness calculations are provided in this filing in PDF format as Confidential Exhibit A. The calculations include scenarios for each of the three notification/incentive scenarios. Staff requested and received from the Company the cost effectiveness calculations in spreadsheet format as well. Staff reviewed the file, and the calculations appear reasonable and accurate.

Prospective cost effectiveness results for the expanded program are included in this filing. The day ahead and hour ahead program dispatch scenarios are cost effective from the utility cost (UCT) and total resource cost (TRC) perspectives when ten years of benefits and costs are compared. The 22.5 minute ahead program dispatch scenario is also cost effective from the utility cost and total resource cost perspectives when ten years of benefits and costs are compared, despite omitting regulating reserve impacts from the calculations due to unknown customer acceptance of this dispatch approach. The results are presented in the Staff-generated table below.

Table 3

Program Dispatch Scenario	**UCT**	**TRC**
Day-ahead	1.2	1.3
Hour-ahead	1.1	1.1
22.5 minute or less	1.0	1.1

Staff supports the proposed expanded program. The expanded program builds on the experience of the irrigation pilot and cost-effectively meets needs forecasted by the IRP. Staff also notes the success of irrigation demand response programs run by PacifiCorp and Idaho Power Company in Utah and Idaho.

4. Recovery of irrigation demand response program costs through Schedule 291

Pacific Power proposes to recover expanded program costs through Schedule 291. This is consistent with Pacific Power's Advice No. 21-022, approved by the Commission December 28, 2021.[7] The Company is not proposing a change to Schedule 291 as part of this filing. Instead, once the irrigation demand response program is approved, the Company will file an application to defer the costs incurred through the program for later recovery through Schedule 291. Staff supports this approach.

Stakeholder involvement

This filing documents stakeholder involvement in developing these proposals. This stakeholder involvement grew out of the demand response RFP and the irrigation load control pilot. Stakeholder engagement in pursuit of a demand response RFP included approximately 20 different opportunities including CPA workshops, demand response workshops, regular IRP public input meetings, meeting with Energy Trust of Oregon staff, utilizing a consultant to research demand response vendors, conducting the RFP, and updating Commission Staff. Stakeholder engagement for the irrigation load control pilot consisted of pilot participant responses to interview questions as part of the post-

[7] *See* Docket No. ADV 1344, Pacific Power Advice No. 21-022, filed November 15, 2021. The advice filing created a new Schedule 291 to consolidate the recovery of costs to fund energy efficiency, transportation electrification, and demand response programs. The filing was in response to the passage of HB 3141, which removed energy efficiency funding from the Public Purpose Charge, and HB 2165, which specified new funding for transportation electrification. The filing also canceled Schedule 95, the tariff through which Pacific Power previously recovered costs of its original irrigation load control pilot. https://edocs.puc.state.or.us/efdocs/UAA/uaa16439.pdf.

2021 season report, meeting with Energy Trust of Oregon staff, and meeting with a representative from Farmers Conservation Alliance.

Impacts to other programs
The expanded program will continue to complement the irrigation time of use pilot, as did the irrigation load control pilot.[8] Customer participation by meter will continue to be limited to either the expanded program or the time of use pilot, but not both.

Conclusion

Staff finds that Pacific Power's proposed Schedule 106, and the accompanying approach to program administration, balances programmatic flexibility, procedural predictability and transparency for stakeholders. Staff supports the cancellation of Schedule 105. Further, Staff supports the proposed expanded irrigation demand response program as it builds on experience gained through the irrigation pilot and cost-effectively meets needs forecast by the IRP.

PROPOSED COMMISSION MOTION:

Approve Pacific Power's Advice No. 22-004 authorizing Schedule 106, cancelling Schedule 105, introducing an irrigation demand response program, and recovering those program costs through Schedule 291, effective with service on and after May 6, 2022.

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[8] Customers taking service under Schedule 41, Agricultural Pumping Service, who choose Supply Service Schedule 201 may also choose to participate in one of two time-of-use options, though the program is not enrolling new participants at this time. *See* https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/rates-regulation/oregon/tariffs/rates/041_Agricultural_Pumping_Service_Delivery_Service.pdf, and https://www.pacificpower.net/savings-energy-choices/business/wattsmart-efficiency-incentives-oregon/oregon-agriculture.html, and https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/savings-energy-choices/agriculture/OR_Irrigation_TOU_FAQ.pdf.