

Attachment F

Irrigation Time-of-Use Pilot Monitoring and Reporting Plan

Monitoring and Reporting Plan Irrigation Time of Use Option (Schedule 40)

Background

Pacific Power will pilot a time of use rate to a limited number of irrigation customers in an effort to collect data and determine the impacts of introducing time of use rates in Washington. This pilot program will become effective on or around May 2021 and will be studied for a three-year period with the option of extending an additional two years.

Pilot Goal

The goal of the pilot is to determine if the Company should offer a TOU program to all irrigation customers before 2027, by measuring the value of TOU rates for irrigation customers in a pilot program. No specific formula exists for what will constitute a successful pilot, but rather its success or failure will be judged on several measures listed below.

Pilot Outcomes to Measure Value

- **Customer Satisfaction**
 - How satisfied are participants with the time of use option?
 - Did participants save a meaningful amount on their bills?
- **Economic Efficiency**
 - Do customers on this rate option pay their cost of service?
 - Do the benefits of the program outweigh the costs?
- **Customer Appeal**
 - Do customers want to sign up for this option?
 - Do participants choose to stay on this option, or do they go back to their previous schedule?
- **Equity**
 - Are the owners of participating businesses members of vulnerable populations, if applicable¹¹?
 - How does this pilot impact the workforce?
 - Is participation occurring in locations with higher proportion of low income/vulnerable populations?

Pilot Design and Implementation

- The pilot will be open to a maximum of 200 irrigation customers on an opt-in, first-come first-served basis.
- Usage profiles will be collected for participants.
- Existing data from non-residential customers will be used as a control to compare to the pilot group. Data from the control group will include the following:

¹¹ This would only be applicable to a business. For example, a meter from a school or other governmental entity would not be specifically owned by any individual.

- Load profiles from the irrigation load research study
- At the end of the participant's first annual period on the program, a letter will be sent to the participant informing them of their net savings or cost relative to traditional Schedule 40. Included in that letter will be an invitation to participate in an online survey. To increase the response rate to the survey, each respondent will be entered in a drawing to win a gift card.
- The Company will promote enrollment in the program through the following channels:
 - Bill messaging
 - Website
 - Newsletters
 - Targeted email announcements
 - Social media posts
 - Outreach through trusted community liaisons, organizations, and partners
 - Outreach conducted in languages other than English in line with local customer demographics

Measures

- **Customer Satisfaction**
 - Satisfaction with the program will be measured from participant responses to the survey (See appendix A).
 - Net customer bill savings/cost relative to service under traditional non-residential schedules will be tracked for each participant. A distribution of net savings/cost will be examined.
- **Economic Efficiency**
 - A cost-benefit analysis will be conducted to quantify the effectiveness of the pilot.
 - Costs will include, at a minimum:
 - Metering
 - Customer Service
 - Marketing
 - Administration
 - A variant of the cost-benefit analysis will consider the net bill savings (or costs) of participants as a cost
 - Benefits will include, at a minimum:
 - Energy savings
 - Capacity savings
 - Transmission and distribution deferral
 - The cost-benefit analysis will also compare current metering with a counterfactual sensitivity under which the Company has deployed advanced metering infrastructure (AMI).
 - A cost of service study will be conducted under which Schedule 40 time of use will be put onto its own class within the study to determine if participants pay more or less than their cost of service in the final report.

- **Customer Appeal**
 - Enrollment counts by date will be tracked. Inferences could be made from enrollment timing regarding seasonality and simultaneous timing of program promotions.
 - Retention will be tracked by measuring counts of customers who drop off the program and return to Schedule 40 relative to overall enrollment over time.
 - To what degree participating customers (or customers who have dropped out) place more value on the potential savings from time-varying rates or appreciate reliable/predictable bills based on non-time varied rates (i.e. does the potential for savings due to a new rate structure outweigh the uncertainty of whether or not savings will actually accrue?) will be measured in survey responses.

- **Equity**
 - Customer enrollment, retention, satisfaction, and bill savings/cost will be tracked by participants who identify as a business owned by a member of vulnerable populations to understand if program experience differs for customers from vulnerable groups.
 - Participation and associated characteristics will also be cross-referenced against zip codes to determine whether irrigation customers in communities with higher proportions of low income or vulnerable populations benefit from this rate option.
 - Participation will be tracked by census tract.
 - The survey will attempt to gauge whether participation in the time of use rate option may have caused any adverse impacts for workers.

- The data collected and analysis performed will be used to determine if the pilot should be terminated, expanded, modified, or made permanent.

Reporting

- A preliminary check-in report will be prepared on the results of the first 18 months of the pilot. This report will be filed with the Commission six months after the initial 18-month period. It will include all of the information available from the different measures, except for those pertaining to the economic efficiency since load research data will not be available at that time and census tract information, since the Company will need time to develop this capability.
- A final report will be filed with the Commission within six months of the end of the pilot's three-year period that will include a full review of the program metrics, conclusions on the successfulness of the program as well as recommendations for the continuation or cancellation of the program.
 - At this time, the Company may recommend a two-year extension of the pilot if more information or tariff changes are necessary. If such an option is exercised, an additional final report will be required within six months of the end of the five-year extended pilot term.
- The tariff for Schedule 40 time of use will not have an automatic termination date.

- Any changes made to the pilot design will need to be addressed in the reports and efforts made to create accurate comparisons between pre- and post- change versions of the program.

Appendix A. Washington Irrigation TOU Pilot Survey

1. In what capacity are you answering this survey?
 1. Business owner
 2. Administrative support
 3. Energy manager
 4. Accounts payable department
 5. Other <Please enter>

2. Where did you hear about Pacific Power's time of use rate plan?
 1. Company website
 2. Word of mouth
 3. Company email
 4. Company brochure
 5. Social media channels
 6. Other <Please enter>

3. Why did you enroll in the time of use rate plan? <Check all that apply>
 1. To save money
 2. To help Pacific Power with its research
 3. To help Pacific Power better manage its system
 4. To help the environment
 5. Other <Please enter>

4. How satisfied are you with the time of use rate plan?
 1. Very satisfied
 2. Somewhat satisfied
 3. Neither satisfied nor dissatisfied
 4. Somewhat dissatisfied
 5. Very dissatisfied
 6. No opinion

5. If you were not satisfied with the time of use plan, why were you dissatisfied? <Check all that apply>
 1. Not applicable (I am satisfied with the plan)
 2. Did not save money
 3. Did not save enough money
 4. Too difficult to change the times you use energy
 5. Too difficult to pay attention to the times you used energy
 6. Terms of the program were confusing or difficult to understand
 7. Too challenging to change schedule to align with the program
 8. Preferred bill predictability of previous rate option

9. Other <Please enter>
6. What would you recommend improving about the program? <Check all that apply>
 1. Additional or clearer information from Pacific Power about how the program works
 2. Clearer or more frequent information about electricity usage
 3. Clearer or more frequent information about bill savings or increases
 4. Less on-peak hours
 5. Greater difference in pricing by period, so I can save more
 6. Nothing
 7. Other <Please enter>
7. Have you recommended the time of use plan to someone you know?
 1. Yes
 2. No
 3. I don't know
8. If yes, do you know if that individual enrolled in the program?
 1. Yes
 2. No
 3. I don't know
 4. Not applicable
9. How did your participation in the time of use rate plan affect your monthly electric bills?
 1. I saved a lot of money
 2. I saved a moderate amount of money
 3. I saved very little or no money
 4. It cost me very little or no money
 5. It cost me a moderate amount of money
 6. It cost me a lot of money
 7. I don't know
10. Did you make changes to your energy usage in an effort to save money on the time of use program?
 1. Yes
 2. No
 3. I don't know
11. If yes, what changes did you make?
 1. <Please enter>
12. How do you use power at the site enrolled in the time of use option? <Check all that apply>

1. Irrigation of fruit
2. Irrigation of row crops
3. Irrigation of pasture
4. Irrigation of a grain crop
5. Irrigation of hops
6. Soil drainage
7. Other <Please enter>

13. How many employees work at the site enrolled in the time of use option?

1. <Please enter>

14. Did your participation in the time of use program result in workforce changes?

1. Yes
2. No
3. I don't know

15. If yes, what were the workforce changes? <Check all that apply>

1. Not applicable
2. Hours that employees worked shifted to a different time of day
3. Hours that employees worked increased
4. Hours that employees worked decreased
5. Added work shifts per day
6. Decreased work shifts per day
7. Increased number of employees
8. Decreased number of employees
9. Other <Please enter>

16. Are you aware of any changes in employee morale related to this time of use program?

1. Yes, employee morale is higher
2. Yes, employee morale is lower
3. No
4. I don't know

17. If yes, please tell us how employee morale changed?

1. <Please enter>

18. Did the time of use program impact productivity?

1. Yes, increased
2. Yes, decreased
3. No
4. I don't know

19. Has the time of use program improved the financial position of the business?

1. Yes, it significantly improved financial position
2. Yes, it somewhat improved financial position
3. Yes, it slightly improved financial position
4. Neither improved nor harmed financial position
5. No, it slightly harmed financial position
6. No, it somewhat harmed financial position
7. No, it significantly harmed financial position
8. I don't know

20. Did this time of use program remove a financial barrier to your operations?

1. Yes, I wouldn't have been able to operate without this program
2. No
3. I don't know
4. Other <Please enter>

21. Were you more active in monitoring energy usage while on the time of use rate compared to before you enrolled?

1. Yes, much more active
2. Yes, moderately more active
3. Yes, slightly more active
4. No
5. I don't know

22. Was the time of use rate easy to understand?

1. Yes
2. No
3. I don't know

23. What were your biggest challenges on the time of use rate?

1. <Please enter>

24. Do you have any comments on the time of use rate program?

1. <Please enter>

25. What is the race of owner of the business for the enrolled site? <select all that apply>

1. Not applicable. Entity is not owned by an individual/individuals.
2. American Indian, Alaska Native
3. Asian
4. Pacific Islander
5. Black, African American
6. Hispanic/Latino
7. White/Caucasian
8. Prefer not to answer

26. Please enter your name and email address for a chance to win a \$\$\$ gift card