**EXH. BDJ-16**
**DOCKETS UE-22___/UG-22___**
**2022 PSE GENERAL RATE CASE**
**WITNESS: BIRUD D. JHAVERI**

**BEFORE THE**
**WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

| | |
|---|---|
| **WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,**<br><br>**Complainant,**<br><br>**v.**<br><br>**PUGET SOUND ENERGY,**<br><br>**Respondent.** | **Docket UE-22____**<br>**Docket UG-22____** |

**FIFTEENTH EXHIBIT (NONCONFIDENTIAL) TO THE PREFILED DIRECT TESTIMONY OF**

**BIRUD D. JHAVERI**

**ON BEHALF OF PUGET SOUND ENERGY**

**JANUARY 31, 2022**

# TVR Pilot | Stakeholder Feedback

## First Collaborative Survey

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# Question 1

- Organization Name :
- Organization Contact:

*Slide Included for Completeness*
*No personally identifiable information is intended to be shared in this exhibit.*

# Question 2 - Objectives

Q: Please allocate 100 points among the following rate design objectives based on their order of importance, assigning more points to more important objectives and fewer points to less important objectives. Feel free to assign zero points to any objective.

- **Economic efficiency for society as a whole**
- **Customer bill stability**
- **Revenue adequacy**
- **Equity among all customers**
- **Customer satisfaction**
- **De-carbonization and clean energy**
- **New objective:**

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# Question 2 – Objectives (cont.)

- Decarbonization is the clear winner, followed by customer satisfaction.
- Economic efficiency does not rank high. Only two stakeholders provided scores for this objective.
- Affordability and equity were brought up a few times in the “Other” category.

| | Economic efficiency | Bill stability | Revenue adequacy | Equity | Customer satisfaction | Decarbonization | Other |
|---|---|---|---|---|---|---|---|
| **Total** | 45 | 15 | 40 | 35 | 80 | 165 | 110 |
| **Mean** | 23 | 8 | 13 | 18 | 20 | 33 | 28 |
| **Min** | 20 | 5 | 10 | 15 | 10 | 5 | 20 |
| **Max** | 25 | 10 | 20 | 20 | 30 | 60 | 30 |
| **NonZeros** | 2 | 2 | 3 | 2 | 4 | 5 | 4 |

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# Question 3 – Designs to Consider

Below is a list of rate design options that are under consideration:

- **Time-of-Use (TOU) rates for energy consumption:** The day is divided into peak and off-peak time periods. (There may be more than two pricing periods.) Prices are higher during the peak period hours to reflect the higher cost of supplying energy during that period and lower during the off-peak period.
- **Critical Peak Pricing (CPP) rates for energy consumption:** Customers pay higher prices during critical events when system costs are highest or when the power grid is severely stressed. These events are typically called no more than a dozen times a year and the total number of critical hours is typically less than a hundred.
- **Peak Time Rebate (PTR) for energy:** Customers are paid for load reductions during critical events. Reduction is measured relative to an estimate of what the customer would have otherwise consumed (their "baseline").

Q: Is there a rate design that you think is missing from the list above?

- If so, please specify below.
- [Or state] Additional rate design:

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# Question 3 – Designs to Consider (cont.)

- TOU+PTR might be a good option for low income customers
- WattTime data analysis will be helpful to inform TOU Carbon rate option

**Stakeholder Submissions:**

- *TOU+CPP/TOU+PTR Programs can be linked in some form to identify cross-impacts.*
- *Time-of-Use rates for carbon emissions: The day is divided into high and low carbon emissions periods, which could have two or three pricing periods. Prices are higher during times that use higher carbon emitting resources to reflect the higher societal cost of supplying energy during that period. This may attract and incentivize a significant group of customers that are interested in reducing carbon*

# Question 4 – Enrollment

- Q: Please indicate whether PSE should test the following rate design options on an **opt-in** or **opt-out** basis?
  - Time-of-Use (TOU)
  - Critical Peak Pricing (CPP)
  - Peak Time Rebates (PTR)
  - Other rate design identified in Question 3

# Question 4 – Enrollment (cont.)

- Opt-in received more support for TOU and CPP
- A slight preference for opt-out for PTR

| | TOU | CPP | PTR | Other |
|---|---|---|---|---|
| **Opt in** | 3 | 3 | 1 | 1 |
| **Opt out** | 1 | 1 | 2 | 0 |
| **Both** | 0 | 0 | 1 | 0 |

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# Question 5 – Enrollment by Customer Type

- Q: Please indicate whether PSE should test the rate design(s) selected for each of the following customer classes/types on an **opt-in** or **opt-out** basis?
  - Residential treatment group
  - Low Income treatment group
  - Small Commercial treatment group
  - EV treatment group

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# Question 5 – Enrollment by Customer Type (cont.)

- Opt-in received more support across all customer groups
  - PTR has support for opt-out
- For EV customers, there's strong support for opt out

| | Residential | Low Income | Small Commercial | EV |
|---|---|---|---|---|
| **Opt in** | 3 | 5 | 2 | 1 |
| **Opt out** | 2 | 0 | 3 | 4 |

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# Question 6 – Residential Rate Options

- Q: For **residential customers**, please allocate 100 points for each of the rate designs listed below, giving the highest points to those rate designs that best meet the most important rate design objectives you have identified earlier.
  - TOU
  - CPP
  - PTR
  - New rate design identified in Question 3

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# Question 6 – Residential Rate Options (cont.)

- TOU has the most points, followed by PTR
- Little support for CPP, though one stakeholder assigned 35 points each for PTR and TOU+CPP/TOU+PTR

| | TOU | CPP | PTR | Other |
|---|---|---|---|---|
| **Total** | 185 | 65 | 175 | 75 |
| **Mean** | 37 | 16 | 35 | 38 |
| **Min** | 10 | 15 | 15 | 35 |
| **Max** | 70 | 20 | 60 | 40 |
| **NonZeros** | 5 | 4 | 5 | 2 |

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# Question 7 – Small General Service Rate Options

- Q: For small commercial business customers, please allocate 100 points for each of the rate designs listed below, giving the highest points to those rate designs that best meet the most important rate design objectives you have identified earlier
  - TOU
  - CPP
  - PTR
  - New rate design identified in Question 3

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# Question 7 – Small General Service Rate Options (cont.)

- TOU has the most points, followed by PTR
- Little support for CPP, though one stakeholder assigned 40 points for TOU+CPP/TOU+PTR

| | TOU | CPP | PTR | Other |
|---|---|---|---|---|
| Total | 180 | 70 | 170 | 80 |
| Mean | 36 | 18 | 34 | 40 |
| Min | 5 | 15 | 15 | 40 |
| Max | 70 | 25 | 60 | 40 |
| NonZeros | 5 | 4 | 5 | 2 |

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# Question 8 – Low Income Residential

- For **low income/vulnerable customers,** please allocate 100 points for each of the rate designs listed below, giving the highest points to those rate designs that best meet the most important rate design objectives you have identified earlier.
  - TOU
  - CPP
  - PTR
  - Discounted TOU
  - TOU+PTR
  - Discounted TOU+PTR
  - New rate design identified in Question 3

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# Question 8 – Low Income Residential (cont.)

- Discounted TOU and TOU+PTRs are the clear favorites

| | TOU | CPP | PTR | Discounted TOU | TOU+PTR | Discounted TOU+PTR | Other |
|---|---|---|---|---|---|---|---|
| **Total** | 35 | 5 | 100 | 138 | 40 | 138 | 43 |
| **Mean** | 12 | 5 | 33 | 35 | 20 | 35 | 22 |
| **Min** | 5 | 5 | 20 | 15 | 20 | 25 | 10 |
| **Max** | 25 | 5 | 50 | 75 | 20 | 50 | 33 |
| **NonZeros** | 3 | 1 | 3 | 4 | 2 | 4 | 2 |

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# Question 9 – EV Rate Options

- For **EV customers,** please allocate 100 points for each of the rate designs listed below, giving the highest points to those rate designs that best meet the most important rate design objectives you have identified earlier.
  - TOU
  - CPP
  - TOU+CPP
  - New rate design identified in Question 3

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# Question 9 – EV Rate Options (Cont.)

- TOU and TOU+CPP are the clear favorites (even though TOU+CPP is not very common)

| | TOU | CPP | TOU+CPP | Other |
|---|---|---|---|---|
| **Total** | 155 | 75 | 215 | 55 |
| **Mean** | 52 | 25 | 54 | 28 |
| **Min** | 25 | 20 | 25 | 25 |
| **Max** | 100 | 30 | 100 | 30 |
| **NonZeros** | 3 | 3 | 4 | 2 |

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# Question 10 – Expected TVR Benefits

- Please allocate 100 points for the expected benefits of time-varying rates.
  - Customer Choice
  - Bill savings opportunities
  - Peak demand savings
  - Enabling renewables integration
  - Other

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# Question 10 – Expected TVR Benefits

- Bill saving opportunities is the clear favorite, followed closely by peak demand savings and renewables integration

| | Customer Choice | Bill Saving Opportunities | Peak Demand Savings | Renewables Integration | Other |
|---|---|---|---|---|---|
| **Total** | 70 | 130 | 125 | 110 | 65 |
| **Mean** | 35 | 26 | 25 | 28 | 33 |
| **Min** | 30 | 20 | 15 | 10 | 25 |
| **Max** | 40 | 40 | 40 | 50 | 40 |
| **NonZeros** | 2 | 5 | 5 | 4 | 2 |

# Stakeholder Open Form Input:

- Focus on customer centricity: how to make rates most attractive to customers (appeal to their experience, environmental benefits, and convenience)
- Pay attention to edge cases: customers with medical device or without broadband internet
- Interested in learning whether time-varying rates should be provided to all PSE customers by 2028.
- There is strong support for a time-varying rate program for medium and large C&I customers
- There is universal support for high Peak/Off-peak price ratio
- There is near consensus for including enabling technologies
  - Opposition has concerns related to representativeness of the pilot
- There is strong consensus for informational feedback

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