Tacoma Power Rate Overview
2019/2020 Biennium

Chris Robinson, Tacoma Power
September 26, 2018
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Rates Process

+ Revenue Requirement
+ Cost-of-Service Analysis
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+ Rate Design: New Class
+ Rate & Financial Policy
Rates Process

Ratemaking Process

How Big is the Pie?
Revenue Requirement

How to Slice the Pie?
COSA

How to Eat Each Slice?
Rate Design
Revenue Requirement
Revenue Requirement

Budget and Rate Timeline

Jan 2018

2/7 Rates & Financial Planning Workshop

4/11 Draft LRFP & Revenue Requirement Forecast


5/23 PUB Budget Preview & Final LRFP /Rev Rqmt

6/27 PUB COSA & Class Rates Review

7/2 Participation Protocol Begins

7/25 PUB Water & Power Rates & Financial Policy SS & Potential Action

9/26 PUB SS Review of Budget & Rates

10/2 GPFC

10/10 PUB Budget & Rates Public Review

11/20 City Council Finalize Rates & Budget

4/1 Rates Effective

Apr 2019

We are here.

Rate Design

Revenue Requirement

set here.
The Tacoma Power Revenue Requirement is a forecast of the amount we needed to cover all of the utility’s expenses and meet financial plan goals.

Tacoma Power’s 2019/2020 Revenue Requirement forecast assumptions are provided in the June 27, 2018 Revenue Requirement presentation.
## Revenue Requirement

### Revenue Requirement versus Budget

<table>
<thead>
<tr>
<th></th>
<th>Forecast for Revenue Requirement</th>
<th>Forecast for Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Forecast Expenditures</strong></td>
<td>$949,791,059</td>
<td>$958,830,957</td>
</tr>
<tr>
<td>Wholesale Sales</td>
<td>95,403,408</td>
<td>95,840,208</td>
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<tr>
<td>Click! Revenue</td>
<td>49,038,460</td>
<td>54,732,255</td>
</tr>
<tr>
<td>Other Revenue*</td>
<td>$52,921,434</td>
<td>52,608,754</td>
</tr>
<tr>
<td>Spenddown of Cash</td>
<td>6,660,427</td>
<td>9,179,049</td>
</tr>
<tr>
<td><strong>Remaining</strong></td>
<td><strong>$745,767,330</strong></td>
<td><strong>$746,470,691</strong></td>
</tr>
<tr>
<td><strong>less</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail Revenue at Existing Rates</td>
<td>729,438,197</td>
<td>729,929,146</td>
</tr>
<tr>
<td><strong>Rate Increase Needed</strong></td>
<td><strong>$16,329,133</strong></td>
<td><strong>$16,541,545</strong></td>
</tr>
</tbody>
</table>

Difference in Revenue Requirement and Budget will be managed by Tacoma Power through controlling expenses, use of the **Note Purchase Agreement** ($100M), or cash balances. A request for an additional rate increase may also be made as a last resort.

*In response to 6/27 Study Session from Board Member Flint (ACTION ITEM 27).*
The recommended 2% system-average rate increase in 2019 and 2020 is designed to meet DSCR targets, manage cash levels, and minimize rate spikes in the future.
Cost-of-Service Analysis Results
Cost-of-Service Analysis Results

Increase by Class

Annual Step Increase

- **Residential**: 0.9%
- **Small General**: 0.7%
- **General**: 4.0%
- **High Voltage General**: 3.1%
- **Contract Industrial**: 2.2%
- **Street & Highway Lighting**: 4.0%
- **Traffic Signals & Lights**: 0.0%
- **Private Off-Street Lighting**: 4.0%

System Average: 2.0%

Preliminary, subject to change.
Results of Rate Design: Existing Classes
## Residential & Small Commercial Rate Design

### Schedule A

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
<td>2019</td>
<td>2020</td>
</tr>
<tr>
<td>Customer Charge</td>
<td>$16.50</td>
<td>$16.90</td>
<td>$17.30</td>
</tr>
<tr>
<td>Energy Charge</td>
<td>0.045351</td>
<td>0.045351</td>
<td>0.045351</td>
</tr>
<tr>
<td>Delivery Charge</td>
<td>0.034435</td>
<td>0.034891</td>
<td>0.035353</td>
</tr>
<tr>
<td><strong>Total per-kWh Charges</strong></td>
<td><strong>$0.079786</strong></td>
<td><strong>$0.080242</strong></td>
<td><strong>$0.080704</strong></td>
</tr>
</tbody>
</table>

Preliminary, subject to change.

### Schedule B

<table>
<thead>
<tr>
<th></th>
<th>Small General</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
<td>2019</td>
<td>2020</td>
</tr>
<tr>
<td>Customer Charge</td>
<td>$22.50</td>
<td>$23.00</td>
<td>$23.50</td>
</tr>
<tr>
<td>Energy Charge</td>
<td>0.044616</td>
<td>0.044616</td>
<td>0.044616</td>
</tr>
<tr>
<td>Delivery Charge</td>
<td>0.034587</td>
<td>0.034895</td>
<td>0.035207</td>
</tr>
<tr>
<td><strong>Total per-kWh Charges</strong></td>
<td><strong>$0.079203</strong></td>
<td><strong>$0.079511</strong></td>
<td><strong>$0.079823</strong></td>
</tr>
</tbody>
</table>

Place 50% of increase in customer charge.
## Rate Design

### General Service

<table>
<thead>
<tr>
<th>Schedule G</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
</tr>
<tr>
<td>Customer Charge</td>
<td>$ 76.00</td>
</tr>
<tr>
<td>Energy Charge</td>
<td>$0.044813</td>
</tr>
<tr>
<td>Delivery Charge</td>
<td>$ 8.35</td>
</tr>
</tbody>
</table>

Preliminary, subject to change.

Increase all rate elements.
# Rate Design

## Industrial Classes

<table>
<thead>
<tr>
<th>Schedule HVG</th>
<th>High-Voltage General</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
<td>2019</td>
</tr>
<tr>
<td>Customer Charge</td>
<td>$ 1490.00</td>
<td>$ 1590.00</td>
</tr>
<tr>
<td>Energy Charge</td>
<td>$ 0.041691</td>
<td>$ 0.042915</td>
</tr>
<tr>
<td>Delivery Charge</td>
<td>$ 4.75</td>
<td>$ 4.89</td>
</tr>
<tr>
<td>Transformer Discount</td>
<td>24.00%</td>
<td>20.00%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Schedule CP</th>
<th>Contract Industrial</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
<td>2019</td>
</tr>
<tr>
<td>Customer Charge</td>
<td>$ 2980.00</td>
<td>$ 3980.00</td>
</tr>
<tr>
<td>Energy Charge</td>
<td>$ 0.033038</td>
<td>$ 0.033038</td>
</tr>
<tr>
<td>Demand Charge</td>
<td>$ 4.33</td>
<td>$ 4.68</td>
</tr>
<tr>
<td>Delivery Charge</td>
<td>$ 4.00</td>
<td>$ 4.22</td>
</tr>
</tbody>
</table>

Preliminary, subject to change.
Rate Design: New Class
Rate Design

Transition DC Fast Chargers to Demand

**Fast Charge Service (Schedule FC)**
- Rate structure mirrors a Public DC Fast Charger Optional Transition Rate adopted by PacifiCorp in Oregon and Washington
- Rate prices are derived from Tacoma Power’s Small General Service and General Service rate schedules

<table>
<thead>
<tr>
<th>Charge</th>
<th>Over 13-Year Transition Period (2019 – 2031)</th>
</tr>
</thead>
<tbody>
<tr>
<td>per Month</td>
<td>remains the effective Schedule G per Month charge $80.00 per Month</td>
</tr>
<tr>
<td>per kWh</td>
<td>transitions from Schedule B per kWh charges to Schedule G per kWh charge $0.079203 in 2019 to $0.049959 in 2031</td>
</tr>
<tr>
<td>per kW</td>
<td>introduces Schedule G per kW charge $0.00 in 2019 to $8.51 in 2031</td>
</tr>
</tbody>
</table>

*NOTE: illustrated prices hold Recommended 2020 rates constant. These rates are subject to change.*
Rate Design

Information will Inform Future Rates

To qualify for the rate, Electric Vehicle Charging Stations must...
• Have separately metered service
• Be broadly available to the general public
• Have at least one DC fast charger
• Demand no more than 1 megawatt of load

Pilot is limited to...
• 13 Years, January 1, 2019 – December 31, 2031
• 25 public DC Fast Charging Stations, on a first-come, first-served basis

Bi-annual reports will include...
• Locations of participating stations
• Aggregated utilization and sales statistics
Rate Design

Limited Ancillary Loads Permitted

Ancillary loads...
- must be related to the provision of Electric Vehicle charging
- must not collectively exceed 5 kilovolt amps (5 kVa)

What will 5kVa support?
It depends on the characteristics of the ancillary loads. With 5kVa, a site would be capable of providing vending machines and ample lighting for its patrons.

In response to 8/8 Study Session question from Board Member Cooley (ACTION ITEM 33).
Rate & Financial Policy
Rate & Financial Policy

Rate and Financial Policy Updates

1. Low-Income and Senior/Disabled Assistance Programs

Addresses programs available through utility assistance programs. “The needs of low-income, senior, and disabled electric customers will be considered when establishing rate levels, providing bill assistance, and offering financial education.”

2. Rate Stability

Sets an objective that seeks to stabilize rates and better align with Water’s rate and financial policies. “To the extent possible, rate adjustments should be as level across years and not exceed general inflationary trends.”

3. Class Rate Increase Cap

Addresses caps for class rate increases and enables better alignment with Water’s rate and financial policies. “Rate adjustments may be phased-in over a limited time period and may be used if a disproportionate change in rate levels is expected for certain classes. Inter-class revenue requirements adjustments significantly in excess of the system average may be allocated proportionally to the remaining customer classes. A gradual approach may be used for the subsidized class to set subsequent rate increases until cost-of-service rates are reestablished.”
Public & Customer Outreach

+ Public Outreach
+ McChord Participation Protocol
+ Next Steps
Public Outreach Timeline

Where we’ve been...

...and where we’ll go.
Public Outreach Themes

Rate proposal has been generally well-received.

- Common Themes from Franchise Jurisdictions:
  - Value proposition generally well-received by audiences
  - Desire for more representation for outside-City customers
  - Questions about AMI rollout and related cybersecurity/data privacy risks
  - Request for more outreach to low-income customers

- Common Themes from Tacoma Neighborhood Councils:
  - Value proposition generally well-received by audiences without any major issues or concerns
Rates Outreach & Communications

Communications

- **Complete**
  - July *Utilities and You* newsletter story
  - Updated web page and banners
  - E-mail list sign up online
  - Bill message
  - Handout for public meetings
  - Translated versions of handouts
  - Updated public meeting info online and social media

- **Upcoming**
  - October *Utilities and You* newsletter update
  - Video
  - E-mail notification to customers
  - Newsletter content for business customers and other orgs
  - Lobby messaging
  - Materials for Oct 10 evening session (to be posted in advance)
Public & Customer Outreach

McChord Participation Protocol

Negotiations focused on three issues, with most focus on the third.

1. Classification of Tacoma-Power-Owned Hydroelectric Production Cost.

2. Classification of Bonneville Power Administration (BPA) Power Cost.

3. Allocation of Demand-Classified Production Cost. In the initial COSA, this cost is allocated based on load patterns during the entire year. The military consultants advocated for an allocator based on load patterns during the winter only. This results in a lower rate increase for the HVG and CP classes, and a higher increase for the Residential class, because residential usage is the most seasonal.

Tacoma Power has recommended studying this issue and producing a full report and recommendation for use in the 2021/2022 rate case, because:

1. This is a significant change from longstanding practice.

2. Area utilities with similar power supplies use a wide variety of methods.

3. Changing methodologies would have a substantial impact on the residential class.

The rate recommendations shown in this presentation assume no change to allocation methodology for the current rate case.
Next Steps

**September 26th**
- Study Session: Public Utility Board Budget & Rates Presentation

**October 2nd**
- GPFC Power, Water and Rail Rates Presentation

**October 10th**
- Public Utility Board Budget & Rates Public Review

**October 16th**
- Joint Council/Public Utility Board Study Session Budget & Rates Presentation

**October 24th**
- Public Utility Board approval of preliminary budget & rates

**November 13th**
- City Council first reading of budget & rates

**November 20th**
- City Council second reading of budget & rates
Appendix

- Cost-of-Service Theory Diagram
- Class Increase Detail
- Current and Projected Class Rates: ¢/kWh
Appendix

Cost-of-Service Study

Functionalization

Total Expenses
- Production
- Transmission
- Distribution

Demand/Peak Related
- Residential
- Commercial
- Industrial

Consumption Related
- Residential
- Commercial
- Industrial

Customer Related
- Residential
- Commercial
- Industrial

Customer Allocation

Residential Cost

General Service Cost

Large Industrial Cost
# Class Increase Detail

<table>
<thead>
<tr>
<th>Description</th>
<th>Revenue at Existing Rates*</th>
<th>Final COSA Results*</th>
<th>COSA Rate Change</th>
<th>Redistribution for Gradualism Cap (Increase Cap at 2x System)</th>
<th>Recommended Rate Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rate Change</td>
<td>Amount</td>
<td>Annual Increase</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Amount</td>
<td>Annual Increase</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>$365,351,989</td>
<td>$369,155,763</td>
<td>$3,803,774</td>
<td>0.7%</td>
<td>$1,124,158</td>
</tr>
<tr>
<td>Small General</td>
<td>57,070,622</td>
<td>57,533,266</td>
<td>462,645</td>
<td>0.5%</td>
<td>112,664</td>
</tr>
<tr>
<td>General</td>
<td>207,180,477</td>
<td>219,582,683</td>
<td>12,402,206</td>
<td>3.9%</td>
<td>18,210</td>
</tr>
<tr>
<td>High Voltage General</td>
<td>45,870,568</td>
<td>48,039,170</td>
<td>2,168,602</td>
<td>3.1%</td>
<td>48</td>
</tr>
<tr>
<td>Contract Industrial</td>
<td>48,523,303</td>
<td>50,119,155</td>
<td>1,595,852</td>
<td>2.2%</td>
<td>15</td>
</tr>
<tr>
<td>Street &amp; Highway (H1)</td>
<td>1,834,191</td>
<td>2,221,130</td>
<td>386,939</td>
<td>13.6%</td>
<td>(276,335)</td>
</tr>
<tr>
<td>Traffic Signals (H1)</td>
<td>168,602</td>
<td>166,802</td>
<td>(1,800)</td>
<td>-0.7%</td>
<td>1,800</td>
</tr>
<tr>
<td>Private Off-Street (H2)</td>
<td>3,005,788</td>
<td>4,167,603</td>
<td>1,161,814</td>
<td>24.0%</td>
<td>(980,561)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 729,005,540</strong></td>
<td><strong>$ 750,985,571</strong></td>
<td><strong>$ 21,980,032</strong></td>
<td><strong>2.0%</strong></td>
<td>-</td>
</tr>
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</table>

*Retail Revenue and Cost of Service for 2019/2020 Rate Period (April 2019 through March 2021).

Preliminary, subject to change.
### Average Rates: Current & Proposed

<table>
<thead>
<tr>
<th>Average per-kWh Rate</th>
<th>Current Rates</th>
<th>Proposed Rates*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>9.68 ¢</td>
<td>9.81 ¢</td>
</tr>
<tr>
<td>Small General</td>
<td>9.36 ¢</td>
<td>9.46 ¢</td>
</tr>
<tr>
<td>General</td>
<td>7.05 ¢</td>
<td>7.47 ¢</td>
</tr>
<tr>
<td>High Voltage General</td>
<td>5.14 ¢</td>
<td>5.38 ¢</td>
</tr>
<tr>
<td>Contract Industrial</td>
<td>4.70 ¢</td>
<td>4.85 ¢</td>
</tr>
<tr>
<td>Street &amp; Highway Lighting (H1)</td>
<td>5.24 ¢</td>
<td>5.56 ¢</td>
</tr>
<tr>
<td>Traffic Signals &amp; Lights (H1)</td>
<td>9.77 ¢</td>
<td>9.77 ¢</td>
</tr>
<tr>
<td>Private Off-Street Lighting (H2)</td>
<td>21.13 ¢</td>
<td>22.41 ¢</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7.84 ¢</strong></td>
<td><strong>8.07 ¢</strong></td>
</tr>
</tbody>
</table>

*average for 19/20 rate period