Recap of Traditional Rate Setting Principles
(As Provided in October Seminar)

- **Rates Should**
  - Meet revenue requirement
  - Be cost based
  - Be just, *reasonable and not unduly discriminatory or preferential*—fair and equitable
  - Be Easy to understand and administer
  - Conform to generally accepted rate setting techniques
  - Provide revenue stability to the Utility and rate stability to the customer
Recap of Policy Issues

- **Who Pays for Growth?**
  - Inverted rate structure
  - Line extension policy/hookup fees

- **Competitive Position**
  - Set rates to competition/alternative fuel/neighbors?

- **Income Redistribution Goals**
  - Lifeline rates or low income discounts
  - Interclass subsidies

- **Economic Development Goals**

- **Detailed Costs per Customer vs. Averaging**
  - Number of customer classes
  - Postage stamp vs. regional rates
Equity Among Customers

- **Large Number of Customer Classes**
  - Residential vs. seasonal class, net metering class
  - Need to decide prior to COSA
  - Can add rate design components that only apply to certain customers
  - Use separate classes requires some type of qualification process which might be hard to verify

- **Equity Through Rate Design**
  - Average use and load shapes drive differences in cost
  - If rate components match up with COSA unit costs, no need to have different customer classes
  - May mean higher customer charges, minimum bills and addition of residential demand charges rather than having most cost in the energy charge
  - Using rate design often more difficult to explain or administer
- In Two-Part Rate Revenues that Should be Collected through Demand Charge are Collected through Energy Charge
- Rates in Example are Revenue Neutral
- Calculated Based on Hourly Load Research Data
- Demand is Maximum Monthly Metered Non-Coincident Peak
Three-Part Rate Setting Questions

- Should New Three-Part Rates be Designed?
- How Does the New Rate Design Compare to That of Other Utilities?
- How Will Customer Bills be Impacted?
- Who Will be the *Winners* and *Loseurs*?
- Can *Vulnerable* Customers be Protected?
- How Will Owners of Distributed Generation be Impacted?
- Should the Rate be Opt-In, Opt-Out, or Mandatory?
- Should Customers be Offered a Menu of Rate Options?
  - If there is rate choice, how will utility revenue be impacted?
- Should the Rate be Piloted Before Full-Scale Deployment?
Discussion on Rates from October

- Issue with Seasonal Customers – Don’t Use Much Energy so Don’t Pay Full Share
- Net Metering a Smaller Issue – but Growing
- AMI is Being Installed – Allows for Better Data and Opens the Door for Residential Demand Charge

Ways to Deal with Seasonal Customers
- High Customer Charge – Part of Fixed Cost of the System in Customer Charge
- Minimum Bill – Equivalent to Take or Pay on Fixed Amount of Use/Month
- Addition of a Demand Charge

Options Also Work for Net Metering Customers
- Small Commercial – Not Facing Same Issues but Need Consistency
- Need to Take Closer Look at Irrigation in the COSA and Rate Design
Cost of Service Analysis Review

- Load factor = average energy use divided by peak energy use (aka peak demand)
- Graphs show hourly energy consumption for a given day

**Residential Customer with 17% Load Factor (kW)**

- Peak demand
- Average

**Industrial Customer with 50% Load Factor (kW)**

- Peak demand
- Average
Rate Design Considerations

- COSA indicates that more revenue should be collected through demand and base charges and less through energy charges

**BEC Revenue Requirement**
- Energy 30%
- Customer 34%
- Demand 36%

**BEC Rate Revenues**
- Energy 67%
- Demand 4%
- Customer 29%
Process

- Completed COSA – AMI used and some small changes to methods
- No need for rate increase for any classes
- May look at Irrigation increase later
- Unit costs from COSA starting point for rate design
- Initial residential and small commercial examples – designed to get feedback rather than being a recommendation
- Will narrow down and refine options plus look at other classes next
- Work together to develop recommendations
## Current Rates vs. COSA Unit Costs (CY20)

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Small Commercial Service</th>
<th>Large Commercial Service</th>
<th>Industrial – Irrigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Rates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base (/month)</td>
<td>$33.50</td>
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<tr>
<td><strong>COSA Unit Costs (Min Sys)</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Base (/month)</td>
<td>$38.24</td>
<td>$46.43</td>
<td>$204.08</td>
<td>$2150.62</td>
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<tr>
<td>Energy (/kWh)</td>
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<td>Demand (/kW-mo)</td>
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<td><strong>Melded kWh</strong></td>
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<td>0.0721</td>
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<td><strong>COSA Unit Costs (100% Demand)</strong></td>
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<td>Base (/month)</td>
<td>$23.09</td>
<td>$31.27</td>
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<td>Demand (/kW-mo)</td>
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<tr>
<td><strong>Melded kWh</strong></td>
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Residential Rate Design Examples

- **Residential: 0% Rate Increase**
  - Example 1: Increase Base Charge
    - Higher base charge
    - Lower energy charge
    - No demand charge
  - Example 2: Minimum Bill to account for Seasonal and Low Use Customers
    - Minimum Monthly Bill
      - 2a - Transmission, Distribution, Customer, and A&G per customer, not including Power Supply, no energy included
      - 2b - $50 Minimum Bill
  - Example 3: Demand Charge
    - No change to base charge
    - Lower energy charge
    - Pick up energy charges in low demand charge
      - 3a - Demand charge $0.50/kW-month
      - 3b – Demand charge $2.00/kW-month
  - Example 4: 100% Demand
    - 4a - 100% Demand
      - Lower base charge
      - Lower energy charge
      - High demand charge
## Residential Rate Design Examples

<table>
<thead>
<tr>
<th>Rates</th>
<th>Base Charge (/month)</th>
<th>Min Charge (/month)</th>
<th>Melded Energy Charge (/kWh)</th>
<th>Demand Charge (/kW-month)</th>
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<tbody>
<tr>
<td>COSA (Min Sys)</td>
<td>$38.24</td>
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<tr>
<td>COSA (100% D)</td>
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Small Commercial Rate Design Examples

- **Small Commercial: 0% Rate Increase**
  - Example 1: Increase Base Charge
    - Higher base charge
    - Lower energy charge
    - No demand charge

- Example 2: Demand Charge
  - Base charge same
  - Lower energy charge
  - Pick up energy charges in new demand charge
    - Demand charge
      - $0.50/kW-month
      - $2.00/kW-month
      - Other....

- Example 3: Minimum Charge
  - $50 minimum charge
    - No Energy included
    - Existing charges apply otherwise

- Example 4: 100% Demand
  - 3 - 100% Demand
    - Lower base charge
    - Lower energy charge
    - High demand charge

Results in 0% Increase in Annual Retail Revenue
## Small Commercial Rate Design Examples

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<td><strong>Current</strong></td>
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