



SMUD Rate Concepts

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CEC Efficiency Committee Load Management
Standards Workshop on Rate Design,
Incentives & Market Integration

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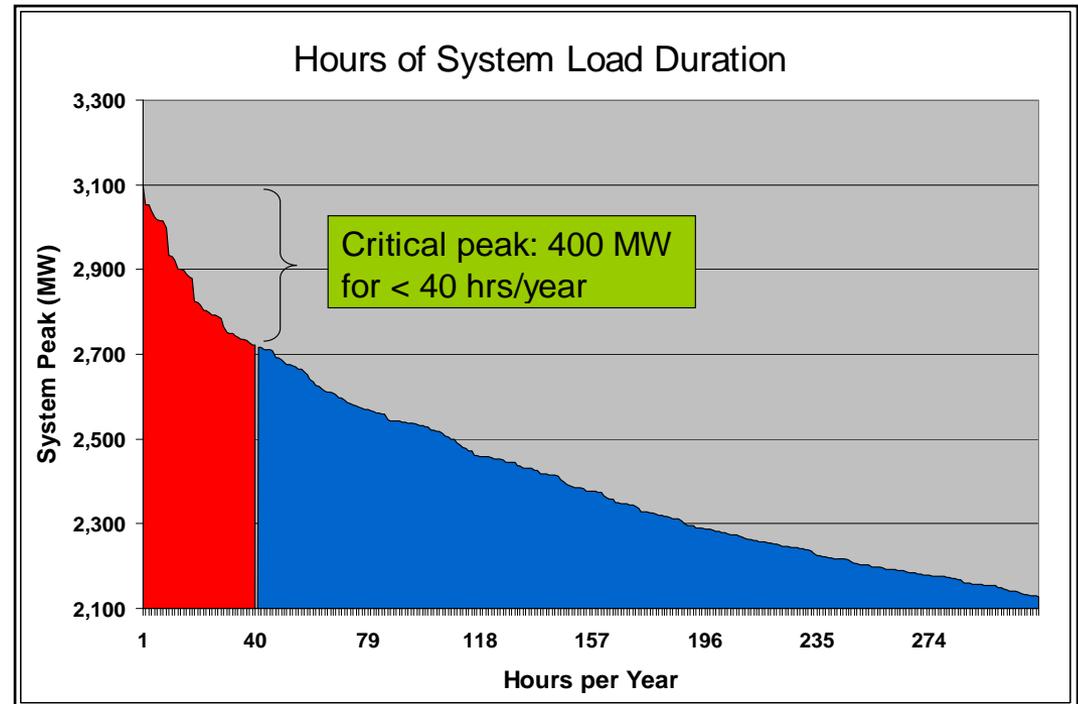
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Focus on 40 Critical, High-cost Hours/year

- Highest 40 hours responsible for 400 MW
- Most peak hours occur in July and August



SMUD Rates Policy

- District's rates will be designed to balance and achieve the following goals:
 - *Reflect the cost of energy when it is used*
 - *Reduce use on peak*
 - Encourage energy efficiency and conservation
 - Minimize “sticker” shock in the transition from one rate design to another
 - *Offer flexibility and options*
 - Be simple and easy to understand
 - Meet the needs of people with fixed incomes and severe medical conditions
 - Equitably allocate costs across customer classes

Rate Concepts Being Considered

- **Large Commercial (1 > MW)**

- *Basic TOU* – 4-month summer, 3 pricing period TOU rate that is energy only
- *TOU Demand* – Same as Basic TOU with addition of a super-peak demand charge
- *Critical Peak Pricing* – Basic TOU with a critical peak price on call days
- *Real Time Pricing* – Hourly energy prices on a day-ahead basis

- **Medium Commercial (300 kW – 999 kW)**

- *Basic TOU*
- *TOU Demand*
- *Critical Peak Pricing*

- **Small Commercial (<300 kW)**

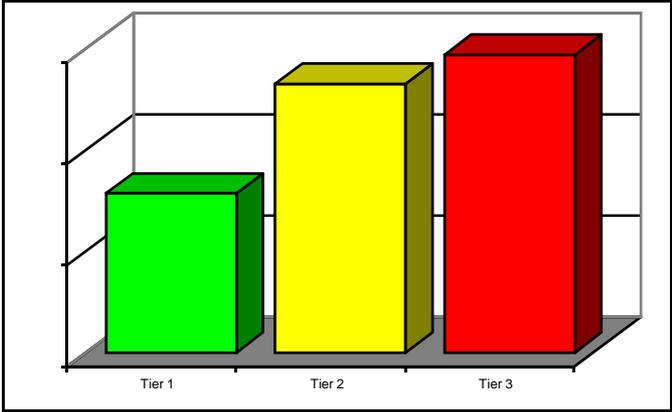
- *Basic TOU*
- *TOU Demand*
- *Critical Peak Pricing*

- **Residential**

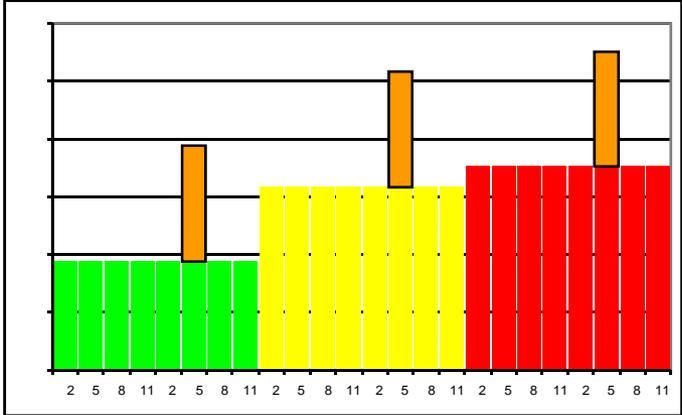
- *3-Tier Pricing* – Standard tier rate
- *3-Tier/TOU “Overlay”* – Standard tier rate with 3-hour summer super peak period
- *Critical Peak Pricing* – TOU/Tier with a critical peak price on call days

Rate Concepts

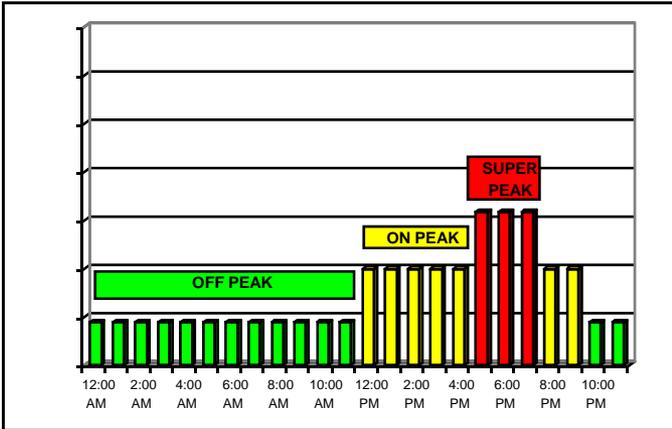
Less Risk but Also Less Opportunity for Price Benefit



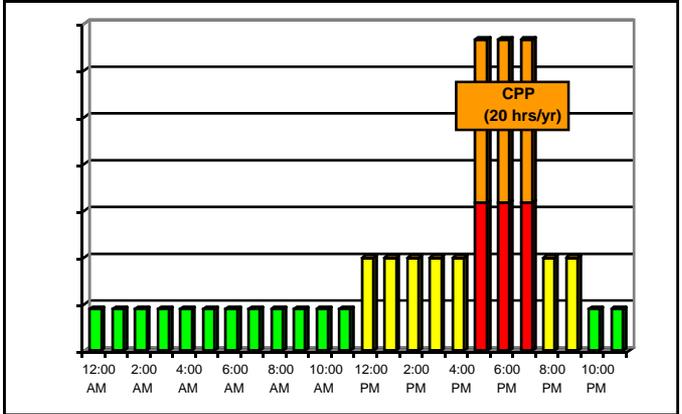
Tier Pricing



Tier / TOU Overlay Pricing



Time-Of-Use Pricing



Critical Peak Pricing

More Opportunity for Price Benefit but Higher Risk



Focus Group Findings on Rate Concepts

- **General:**

- Customers readily understood that SMUD's cost of supplying energy is higher in the summer, especially in very hot weather
- Customers understood that they would pay higher rates over fewer summer months and lower rates over more winter months
- Most like a narrow (3-hour) super peak period

- **Commercial:**

- Customers who find it difficult to shift load and/or have flat load prefer a demand charge, and vice versa
- Customers want a minimum of 24-hour notice for CPP
- Prefer fewer CPP hours with higher prices vs. more hours with lower prices

- **Residential:**

- Customers with flexible lifestyles said they will shift activities off peak
- Want energy savings (from TOU vs. Tier) shown on bill
- Basically like the idea of having pricing choices

Implementation

- **AMI / TOU Transition Timeline**
 - AMI System Selection – 4th Quarter 2008
 - TOU Rates will be offered as AMI is deployed
 - Full AMI Deployment – 2009 to 2012