

# ***CEC Workshop on Rates, Incentives, and Market Integration***

## **SCE Comments**

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# General Comments on Dynamic Pricing

- ❑ Dynamic Pricing is essential to the efficient use of resources and pricing equity associated with capacity costs.
- ❑ SCE's proposals are consistent in the following five proceedings and reach all of our customers with the deployment of SmartConnect.
  - ◆ SCE SmartConnect Application (A.07-07-026)
  - ◆ DR Cost-effectiveness Rulemaking (R.07-01-041)
  - ◆ SCE 2009-2011 Demand Response Application (A.08-06-XXX)
  - ◆ SCE 2009 GRC Phase 2 Application (A.08-03-002)
  - ◆ Dynamic Pricing Proceeding (A.06-03-005, 2007 PG&E GRC Phase 2)
- ❑ To increase both the level of control and the level of demand response, SCE has proposed additional incentives for technology enabled load reduction.
- ❑ SCE believes that customer education and simplicity of design are essential to gaining acceptance of, and participation in, dynamic pricing.
- ❑ Post-AB1X, Dynamic Pricing should be deployed on a voluntary basis to residential customers.

# Principles of Cost-based Ratemaking

- ❑ In California, marginal cost pricing is used as a means to promote economic efficiency.
- ❑ Rate structures should reflect cost to serve at a functional level. For example:
  - ◆ Generation
    - Energy – 41%, recovered through energy charges
    - Capacity – 18%, recovered through time differentiated demand charges
  - ◆ Distribution
    - Delivery – 20%, recovered through non-time differentiated demand charges
    - Customer – 11%, recovered through customer charges
  - ◆ Transmission – 4%, recovered through demand charges
  - ◆ Other (DWR Bond, PPC, NDC, PUCRF, etc.) – 7%, recovered through energy charges.
- ❑ Historical cost of high-function metering has dictated less precise rate designs (e.g. energy only rates for residential and small commercial customers).
- ❑ TOU rates are designed on a marginal cost basis, scaled to functional revenue requirements. TOU options are designed to be revenue neutral to the Otherwise Applicable Tariff.

# Current Rate Design Activity at SCE –

## 2009 GRC Phase 2 - Dynamic Pricing Deployment

- ❑ Capacity costs have increased nearly 60% since our 2006 GRC filing (\$75/kW-year to \$119/kW-year) and can support increased demand response incentives.
- ❑ Rate Deployments
  - ◆ Default Critical Peak Pricing (CPP) for >200 kW C&I (DA and BIP among customers excluded from participation).
  - ◆ SmartConnect Enabled Rates
    - Peak Time Rebate (PTR) for residential customers.
    - Default TOU (w/ opt-out) for C/I customers 20-200 kW
    - Opt-in CPP and TOU available for all rate groups (including residential)
    - PCT-only rates also to be deployed
- ❑ Rate Design Consistency
  - ◆ Mostly consistent with proposals put forth in our SmartConnect Application. Notable exception being a two-tier PTR credit that provides an increased credit for technology-enabled customers.
  - ◆ Apply supply-side alternative valuation methodology advocated in DR cost-effectiveness proceeding (R.07-01-041).

# Current Rate Design Activity at SCE –

## Logistical Issues

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### ❑ Pricing Inconsistencies

- ◆ AB1X has made the current price of incremental kWh to be inconsistent, ranging from less than \$0.10/kWh to nearly \$0.30/kWh with no allowable mandatory differentiation by time of use.
- ◆ An AB1X compliant PTR (rebate) strategy looks to be the program of choice.
- ◆ IOUs are currently artificially constructing CPP and PTR rates by concentrating capacity costs into a relatively few hours, leading to CPP/PTR prices well in excess of \$1/kWh (or \$1,000/MWH).

### ❑ MRTU Coordination

- ◆ How do we reconcile the CA-ISO's desire to convert load currently participating in System Reliability programs into market participating load while preserving system reliability programs?
- ◆ Several parties in the CPUC's Dynamic Pricing proceeding have recommended deferring this issue until we have sufficient experience with CA-ISO scarcity pricing.

# Backup Slides

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- ❑ SCE's Dynamic Rate Proposals by Customer Group
- ❑ PTR Market Research
- ❑ Customer Group Overview
  - ◆ Annual Usage
  - ◆ TOU billing saturation
  - ◆ Coincident Peak Demand
- ❑ Residential Rate Structure – AB1X Mitigation

# Current Rate Design Activity at SCE –

## Current, 2009 SCE GRC Phase 2, Dynamic Pricing Proceeding Comments

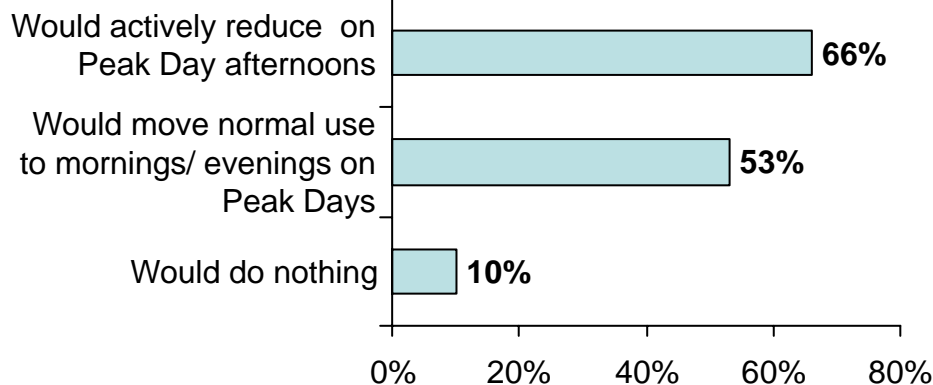
Customer Group	Current	SCE 2009 GRC Ph 2	SCE Post AMI Deployment (2013)
<b>Residential</b> (Assuming AB1X rate protections remain in place)	5 Tier Opt-in TOU No PTR No CPP No RTP	5 Tier Opt-in TOU <b>Default PTR</b> <b>Opt-in CPP</b> No RTP	Tiered Rate (< 5?) Opt-in TOU (no tiers?) Default PTR Opt-in CPP <b>Opt-in RTP</b>  <b>Post AB1X: Evaluate later, will consider default CPP with TOU/Flat</b>
<b>Small C&amp;I</b> (< 20 kW)	Energy-only (GS-1) Opt-in TOU  No CPP  No RTP	Energy-only (GS-1) Opt-in TOU  <b>Opt-in CPP</b>  No RTP	<b>No Energy-only</b> <b>Mandatory TOU</b>  Opt-in CPP  <b>Opt-in RTP</b>
<b>Medium C&amp;I</b> (20 to 200 kW)	Demand Chg + Energy (GS-2) Opt-in TOU No CPP No RTP	Opt-in Demand Chg + Energy <b>Default TOU</b> <b>Opt-in CPP</b> No RTP	<b>No Demand Chg + Energy</b> <b>Mandatory TOU</b> Opt-in CPP <b>Opt-in RTP</b>
<b>Large C&amp;I</b> (> 200 kW)	Mandatory TOU Opt-in CPP Opt-in RTP (> 500 kW only)	Mandatory TOU <b>Default CPP</b> Opt-in RTP (> 500 kW only)	Mandatory TOU Default CPP <b>Opt-in RTP expanded to &lt; 500 kW</b>
<b>Small / Medium Agricultural</b> (< 200 kW)	Default Energy or Demand + Energy Opt-in TOU No CPP No RTP	Default Energy or Demand + Energy Opt-in TOU <b>Opt-in CPP</b> No RTP	<b>No Flat</b>  <b>Mandatory TOU</b> <b>Opt-in CPP</b> <b>Opt-in RTP</b>
<b>Large Agriculture</b> (> 200 kW)	Mandatory TOU Opt-in CPP Opt-in RTP	Mandatory TOU <b>Default CPP</b> No RTP	Mandatory TOU <b>Default CPP</b> <b>Opt-in RTP</b>

# Current Rate Design Activity at SCE – PTR Program Market Research

Prior to any discussion about the amount of rebates or how much electricity would need to be reduced, respondents strongly endorse the concept with six of ten rating an 8 or better.

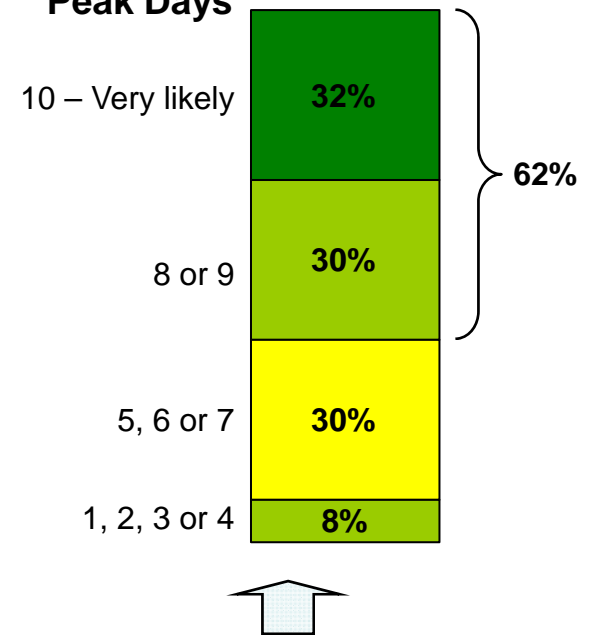
Even after discussing what different levels of reduction imply, only 10% say they would do nothing.

## What would you do if Peak Day Rebate program was in place



## Likelihood to try to reduce electricity usage on Peak Days

Mean = 7.9



Likelihood rating was shown without any dollar amount and prior to discussion of what it would take to adjust energy by a slight, moderate, or major amount.



Question about what one would do was presented without any dollar amount but after a discussion of what it would take to adjust energy by a slight, moderate, or major amount.



# Current Rate Design Activity at SCE – Customer Group Overview

## Southern California Edison 2006 Rate Group Load Studies Generation Level (losses included)

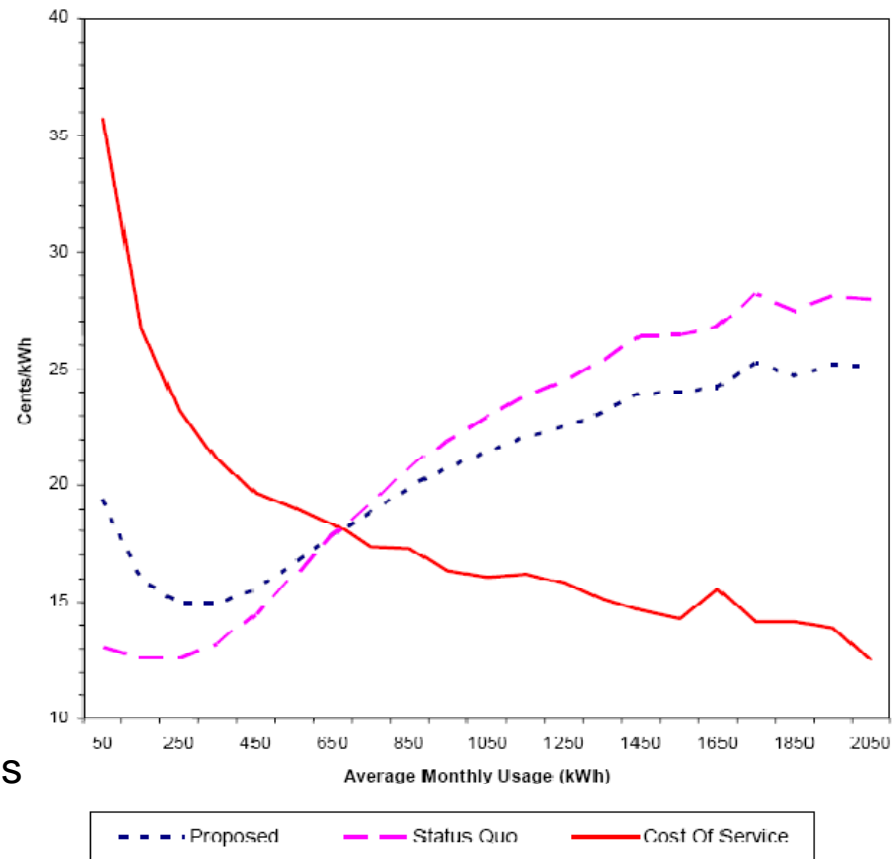
Customer Class	Number of Accounts	Annual Usage (GHW)	Percent of Annual Usage	Percent of On-Peak Usage	Coincident Peak MW	Percent of System Peak	Percent of Usage Billed on a TOU Rate
Residential	4,114,436	32,807	31.4	32.9	10,561	46.6	0.2
Lighting, Small, and Medium Power	600,454	33,296	31.9	35.8	7,002	30.9	22.2
Large Power (> 500 kW)	3,724	27,213	26.0	21.7	3,426	15.1	100.0
Agricultural & Pumping	28,685	3,188	3.1	2.6	487	2.2	76.5
<u>Street Lighting</u>	<u>34,652</u>	<u>733</u>	<u>0.7</u>	<u>0</u>	<u>0</u>	<u>0.0</u>	<u>0.0</u>
<b>Total Retail Load</b>	<b>4,781,951</b>	<b>97,237</b>	<b>93.1</b>	<b>93</b>	<b>21,476</b>	<b>94.8</b>	<b>38.2</b>
<u>Resale</u>	<u>8</u>	<u>7,228</u>	<u>6.9</u>	<u>7</u>	<u>1,176</u>	<u>5.2</u>	<u>N/A</u>
<b>Total System Load</b>	<b>4,781,959</b>	<b>104,465</b>	<b>100.0</b>	<b>100</b>	<b>22,652</b>	<b>100.0</b>	

# Current Rate Design Activity at SCE – Residential Rate Structure – AB1X Mitigation

## *Residential Rate Equity Cost of Service vs. Tiered Rate Designs*

SCE's Phase 2 proposal includes:

1. Increased customer charge (\$6/\$4.50 for single/multi-family dwellings, less 20% for CARE customers). This is about half the cost to serve.
2. Decreased baseline allowance (subject to AB1X floors) and re-alignment to CEC building code zones.
3. Reduction in Tier 3 to Tier 5 rate differentials (from \$0.07/kWh to \$0.05/kWh).
4. As we increase the inequity towards high users, cost-based DR incentives represent a smaller percentage of those customer's bill.



Note: Analysis reflects annual customer load data aggregated to 50-kWh increments.