



# Efficiency Committee Load Management Standards Customer Education and Needs Workshop



July 10, 2008  
California Energy Commission

# Our Perspective



- Smart Meter initiative launches a paradigm shift
- Creates opportunities to:
  - Educate consumers in a more timely and pertinent way
  - Understand customers' behavior and influence behavior change
  - Provide rates that drive demand response, conservation and energy efficiency
- Peak Time Rebate and Critical Peak Pricing-Default rates are first expression of the paradigm shift
- Multiple drivers to behavior change
  - Motivations
  - Necessary tools & education are key

# Our Approach



- Align communication with behavioral/learning objectives
- Involve customers in creation of requirements
  - Smart Meter Installation
  - Education Topics
  - Web presentment – online data access & data presentment
  - Event day notification & feedback
  - Motivational Themes
- Develop a portfolio of strategies that include
  - Price
  - Communication
  - Programs
  - Other services
- Conducted co-design panels October 2007 and June 2008
  - Month-long engagements with “Innovators” conducted via online discussion board



# Key Findings – Data Presentment for Education



- Access to individualized data is key to understanding energy use & rates
- Allow customers to define a goal
- Display rate tiers
- Allow a variety of comparisons
  - Customer-centric comparison
    - Last month, last year, same time last year, and so on
  - Society-centric comparison
    - The average for homes with a specified square footage.
    - The average for homes with a specified number of occupants, etc.
- Include a customer defined notification feature
  - “Notify me when my bill gets to \$100”
  - “Notify me when I move into Tier 3.”

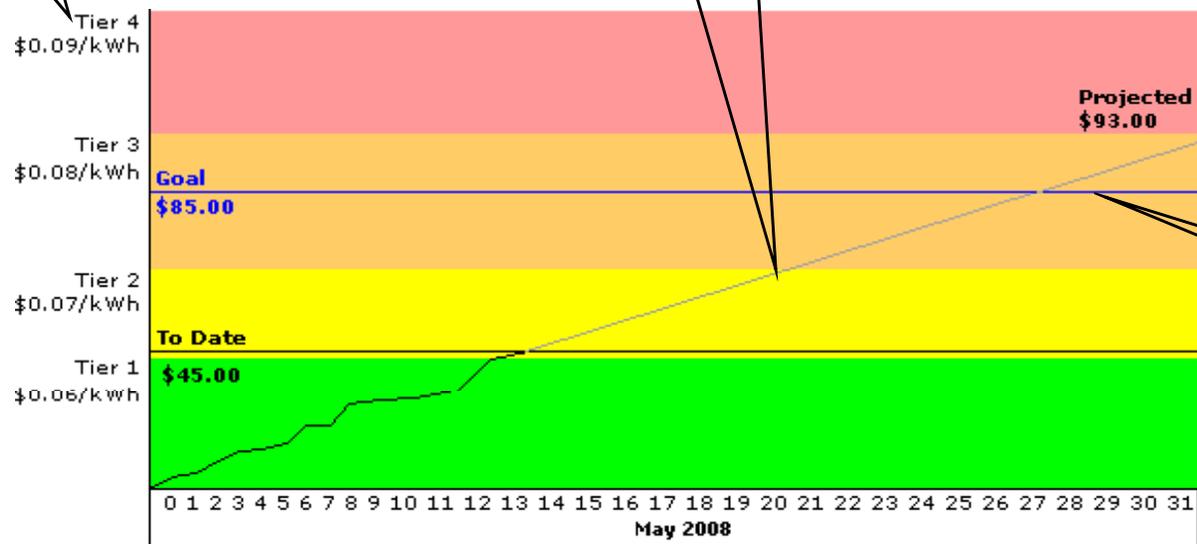
# Key Findings – Data Presentation Prototype



Rate tiers are clearly visible and color coded.

Projected usage based upon current average.

Controls allow comparison of two variables.



This Month  
 Last Month

Customer can set their usage goal.

Bars show hourly, daily, or monthly usage.

Goal line indicates average usage to achieve goal.

\$  
 kWh

Customer can set the units of measure.

# Key Findings – Peak Time Rebate Motivators



- **PRIDE** - Resonated most strongly among all participants.
  - “Good for you. Good for San Diego. Good for the planet” made them feel very positive about being in the forefront of doing something beneficial for the environment.
- **GAIN** - Strong positive reaction
  - Lower Consumption participants and those with large households who were especially attuned to reducing their energy bills.
- **FEAR** - most meaningful to Lower Consumption customers
  - Outages
  - Higher energy prices
- **IMITATION** – Least relevant theme during these sessions.
  - My neighbor is doing it

# Key Findings – Peak Time Rebate Notification & Feedback



- Notify customers electronically: email, text message, and voice
- Enable enrollment for notifications to other household members
- Notification message that is simple, pragmatic, and to the point
- Provide customers next day feedback on how they performed on the peak day

# Key Findings – Event Day Feedback Prototype



**Your Event Day Energy Savings** X ?

John Doe Account 12345 Meter 123456  
1111 Broadway Suite 1800 Oakland, CA

**You earned a credit on \$0.84 August 1 by saving energy!**

- Earn a credit on your utility bill and help reduce regional demand for electricity by reducing your energy usage from 11 AM to 6 PM on selected hot summer days.
- If you saved 20% on August 1, your electric rebate would have been \$2.20
- Your CO2 Savings was 1.4 pounds

**Usage and Rebate for August 1**

Category	Value
Reference Usage	14 kWh
Actual Usage	12 kWh
Your Usage Savings	2 kWh

Display Rebates By:  
 Event  
 Bill  
 Year

Select Period  
8/1/2008

Graph displays amount of energy savings relative to total energy used and reference level.

# Big Picture – PTR Should Be An Orchestration



**When you hear a Flex Alert:**

- Turn off all unnecessary lights.
- Postpone using major appliances until after 7 pm.
- Turn your air conditioning thermostat up to 78° F.

1. Link to existing programs if applicable



5. Rebate appears on bill, applied to social good, or for enabling technology

Register for My Account

**Peak Day Notification**  
Sign up yourself and members

**You (Account Holder)**

Name  
Joan Smith

Email  
Email Address

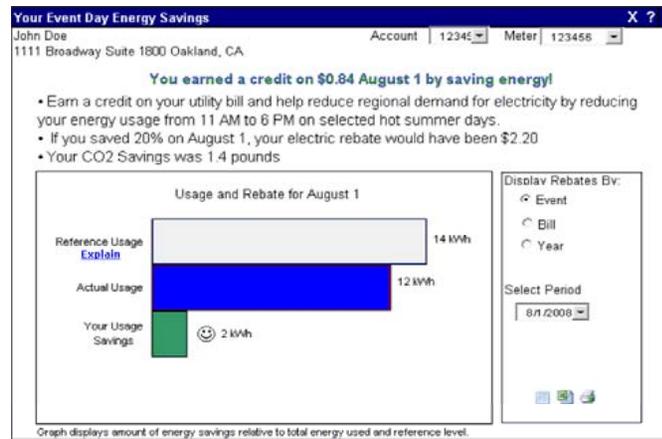
Text Message  
Cell Phone Number

Voice  
Phone Number

Best Time to Call  
9 AM

2. Acquire customer notification info

3. Notify customers day-ahead of peak days



4. Present usage and rebate results



# Near Future Research & Activities



- Explaining Peak Time Rebate to customers
  - explaining the rate vs. explaining desired behavior
- Delve more deeply into motivation and needs by customer segment
- Build in “Test and Learn” scenarios throughout Smart Meter/PTR roll-out
- Identify Peak Time Rebate Program name that resonates with customers