

2012-2014 Demand Response Portfolio Planning

October 5th, 2010

Mark Gaines Introduction



Agenda

9:00 AM-9:30 AM	Meeting / Introduction Kickoff
9:30 AM-10:00 AM	CPUC Guidance Document / SDG&E DR Strategies
10:00 AM-11:30 AM	Residential Demand Response Programs
11:30 AM-12:00 PM	New Construction Demand Response Programs
12:00 PM-12:30 PM	Lunch
12:30 PM-2:00 PM	Commercial / Industrial Demand Response Programs
2:00 PM - 2:30 PM	Customer Education Awareness and Outreach
2:30 PM-3:30 PM	Follow up / Wrap up
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Mark Gaines

CPUC Guidance Document & SDG&E DR Strategies



CPUC Guidance Document

Application Schedule

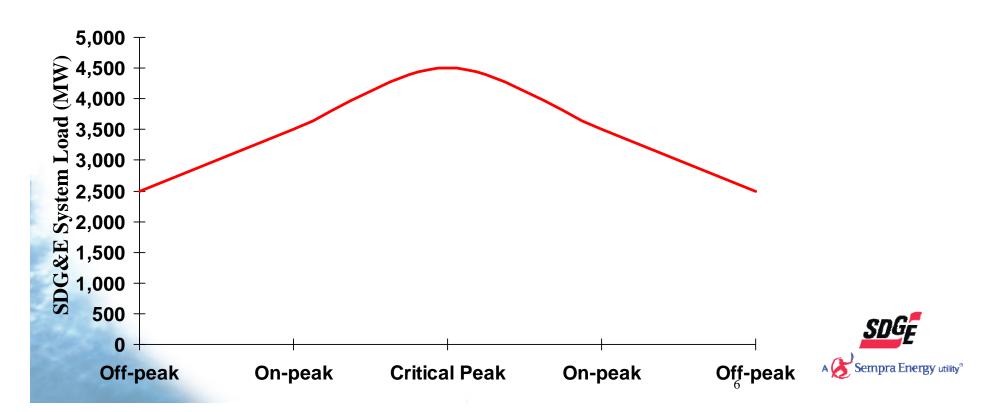
Filing due January 31, 2011

CPUC Guidance that DR Programs should:

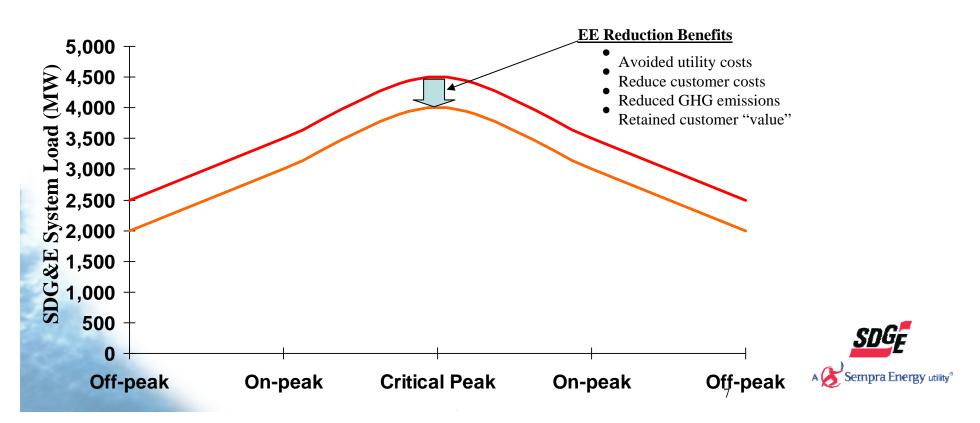
- Compliment dynamic rates (PeakSaver Rewards, PeakShift at Home, PeakShift at Work)
- Align with Resource Adequacy rules:
 - 4 hour duration for up to 3 consecutive days
 - Activation times: 1-6 PM summer, 4-9 PM winter
 - Include test events
- Participate in CAISO's Proxy Demand Resource and Participating Load Systems
- Maximize Auto DR
- Include Peak Load Shifting (PLS) programs



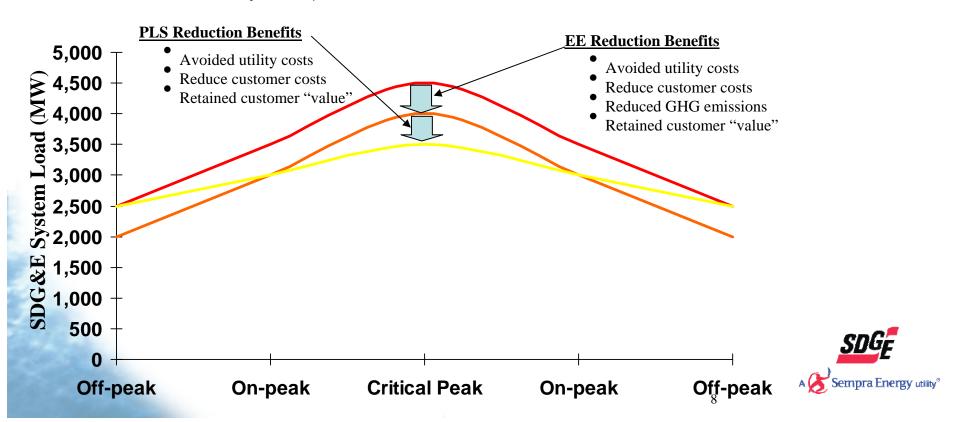
- Maximize the availability of cost-effective Demand Response
- Integrate Demand Response with Energy Efficiency and Permanent Load Shifting to seek a flat utility load profile



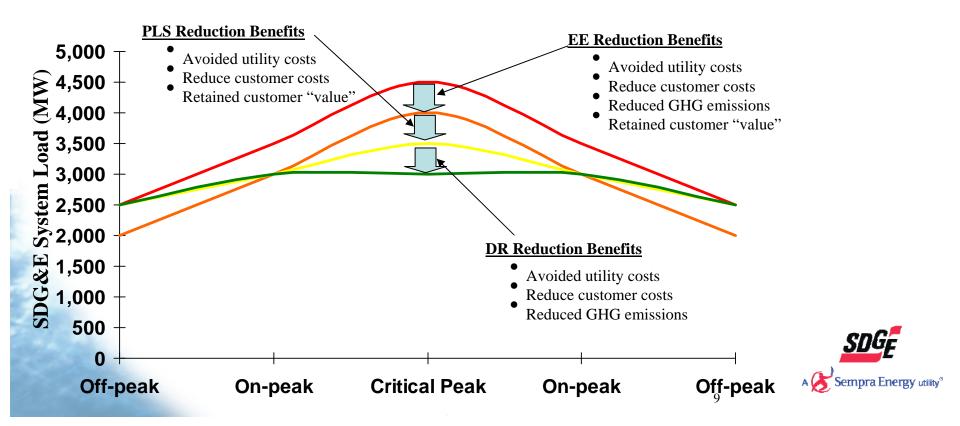
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SDG&E Demand Response Key Strategies

ISO Issues:

- Design DR programs to be as price responsive as possible
- Utilize wholesale market pricing to identify the highest value DR products
- Facilitate the DR market for Aggregators by maintaining a level playing field

Customer Issues:

- Collaborate with stakeholders to develop DR solutions
- Leverage channel partners to maximize customer education and product availability

Enabling Technology Issues:

- Facilitate technology development by clearly conveying DR value proposition to the market
- Prepare a comprehensive IT roadmap to identify system development needs

CPUC Issues:

- Seek appropriate compromise between complexity of DR industry and customers' expectations for simplicity
- Increase stakeholder engagement to identify segment specific solutions



Don Wiggins

Residential Demand Response

Please note that programs and descriptions are proposed and subject to change.



Residential Demand Response

Key Segment Focus

Residential and Small Commercial (< 20 kW)

Program Strategies

- Technology Deployment
 - Awareness and education
 - Product commercialization
- Dynamic rate education



Residential Demand Response

Expected Outcomes

- Maximize customer experience
- Optimize program participation and awareness
 - Residential and small commercial
- Leverage new and developing channels
- Establish predictable load reductions



Existing Residential Demand Response Programs

Summer Saver

- Budget: Funded through 10 year procurement contract
- Current Participation:
 - Residential: 25,000 customers
 - Enrolled Residential MW's: 31
 - Commercial: 5,500 customers
 - Enrolled Commercial MW's:18



Existing Residential Demand Response Programs

Residential Automated Controls Technology (RACT) Pilot

- Participation:
 - Up to 1,500 residential sites to be enrolled during 2011
 - Technologies
 - Programmable Communicating Thermostats
 - Web portal communications
 - Smart appliances
- Focused on customer experience with enabling technologies



Proposed Demand Response Programs for 2012-2014

Technology Deployment Program

- Goals
 - Move enabling technology towards self-installation
 - Open consumer channels
 - Support customer transition to dynamic rates
- Program Description
 - Target Residential and Small Commercial
 - Deploy near cost-effective enabling technologies
 - Programmable Communicating Thermostats
 - Pool pump controls
 - Home automation controls
 - Contracted installation
 - Considering RFPs and standard offer incentives
 - Opportunity for cross promotion with energy efficiency
 - Exploring marketing channel options
 - Utilize pilot (RACT) data to enhance customer experience



Proposed Demand Response Programs for 2012-2014

Technology Pilots

- Goals
 - Expand to include automated controls for small commercial applications
 - Develop platforms to move cost effective technologies from pilot to programs
- Program Description
 - Continue the RACT Pilot with next generation technologies
 - Whole house energy management systems
 - Integrate energy management systems
 - Electric storage devices
 - Residential aggregation
 - Validate customer experience with advanced technologies



Proposed Demand Response Programs for 2012-2014

PeakSaver Rewards Rate Support

- Goals
 - —Maximize customer participation with enabling technologies
 - —Highlight benefits and application of enabling technologies
- Program Description
 - —Continuation of funding for existing program
 - —Targeted communications to educate customers how to maximize their benefit
 - Exploration of loyalty program
 - Assignment of benefits
 - Community engagement options
 - Local outreach and education
 - On-line social networking



Chip Fox

New Construction Demand Response

Please note that programs and descriptions are proposed and subject to change.



New Construction

Existing Programs

• SDG&E does not currently offer any New Construction Demand Response Programs.



New Construction

Trends and new requirements

- Smart Meters / Dynamic Pricing
- Eastern part of service territory growth leads to higher air conditioning load and more DR opportunities

Key Segment Characteristics

- Customers
 - Primarily the Residential Builders/Design Team and Nonresidential Building Owners
- Contractors
 - Subcontractors hired by Builders to install DR enabling technologies
- Sales Staff
 - Real Estate Agents and Builder Sales Staff will need training for their important role



Proposed New Construction Pilots for 2012-2014

Residential New Construction Demand Response

- Goal
 - Achieve market acceptance of DR measures in new construction projects
- Program Description
 - Test marketing approaches/new channels
 - Promote smart appliance technologies
 - Installation of enabling equipment
 - Homeowner welcome package
 - Education and collaboration with builders, realtors, developers on IDSM
 - Investigate lost opportunity Demand Response technologies
 - Technologies that are only cost effective w/ new construction



2012-2014 New Construction Demand Response Pilots

Nonresidential New Construction Demand Response

Goal

- Achieve market acceptance of DR measures in new construction projects
- Educate and open service channels

Program Description

- Target owner office, grocery, retail and hospitality segments
- Test marketing approaches/new channels
- Provide incentives for enabling equipment in the design phase of a project





Lunch

George Katsufrakis

Commercial / Industrial Demand Response

Please note that programs and descriptions are proposed and subject to change.



Existing Commercial Demand Response Rates

Dynamic Pricing Rates - Critical Peak Pricing

- Participants reduce demand in response to increases in retail rates (event day) and receive a reduced rate during all other times of the year.
- Critical Peak Pricing Default for <200kW (CPP-D)
- Critical Peak Pricing Emergency (CPP-E)



Existing Commercial Demand Response <u>Products</u>

Capacity Bidding Program (CBP)

- Day-Of and Day-Ahead Options over 6 different product options
- Event days triggered by system load, temperature and price considerations
- Participant receives monthly payments for their load reduction

Base Interruptible Program (BIP)

- Participant Bids their own power reduction level
- Monthly Bill Credit for potential load reduction

Pilots - Participating Load, DRWMP

Bilateral Contracts

- DemandSMART
- Additional contracts are being considered for 2012 -2014



Proposed Changes to Demand Response Rates

Dynamic Pricing Rates - Critical Peak Pricing

- CPP-D to remain unchanged
- Sunset CPP-E and potentially enroll into other DR programs
- PeakShift at Work (CPP-S) proposed rate for Small to Medium C/I customers



Proposed Changed to Demand Response Products

Participation Goal

- Simplify offering
- Maximize participation

Program Description/Changes

- Fewer products
- Maximize benefits by aligning with resource adequacy
- Investigate adding a winter product
- Eliminate technology incentive and replace with differentiated capacity payments for automated DR
- Integrated Demand Side Management
 - Further integration with EE program promotion and implementation
 - More holistic approach
 - Align messaging and auditing with IDSM



Proposed Changed to Demand Response Products

Integration Goal

- Integration with CAISO Wholesale Markets
 - Bid Capacity Bidding into wholesale capacity market (PDR)
 - Bid BIP into wholesale ancillary services market (RDRP)

Program Description/Changes

- Modify response time to align with CAISO products
- Require telemetry for reliability program



Sara Hill

Customer Education Awareness and Outreach

Please note that programs and descriptions are proposed and subject to change.



Customer Education Awareness and Outreach

Trends and Requirements:

- Integrated Marketing
 - —Customers want to hear one integrated utility message
 - Rate education (CPP) vs. Behavior education (DR)
 - DR viewed as low cost and environmental resource, not emergency resource
 - Specific outreach to low income customers will be addressed in a separate filing



Customer Education Awareness and Outreach

Goal:

- •Ensure customers understand why DR is important
 - environmental + economic benefits
 - Educate customers on what actions they can (and should) take when asked

Program Description

- Follow a standard "AIDA" marketing model (Awareness/Interest/Desire/Action) to funnel customers to appropriate programs and services
- Potential Channels:
 - Radio
 - Direct mail
 - Web



Customer Education Awareness and Outreach

Awareness

Interest

Desire

Action

Through a broad-reaching marketing effort that includes mass media

channels, create **AWARENESS** of our DR portfolio.

With segmented efforts including direct response, online and outreach

at events, generate **INTEREST** by promoting customized solutions.

by creating materials that highlight program benefits to relevant customers with expressed interest.

Individual programs create

ACTION by developing materials that make it easy for the customer to enroll...



Mark Gaines Follow up/wrap up

