

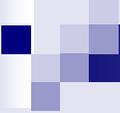
Update on Progress Toward Meeting State's Demand Response Goals

Energy Action Plan Update
April 24th, 2006, Sacramento, CA

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Agenda

- Provide Status report on
 - Demand Response (DR) goals,
 - Advanced Metering Infrastructure installations and
 - Programmable Communicating Thermostats in T-24 Standards
- Highlight key ongoing DR proceedings



Demand Response: Benefits and Action Items

Benefits:

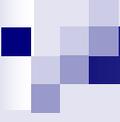
1. Enhance system reliability and constrain market power
2. Reduce power purchase and individual consumer costs
3. Protect the environment by reducing emissions during peak

Current Action Items:

- 1. Review utility Advanced Metering Infrastructure applications (CPUC)**
- 2. Consider ratemaking mechanisms in connection with AMI intended to maximize DR (CPUC)**
- 3. Develop DR cost-effectiveness and load impact protocols (CPUC/CEC)**
- 4. Deploy Programmable Controllable Thermostats (PCT) and Automated DR (CEC)**

Two Types of Demand Response

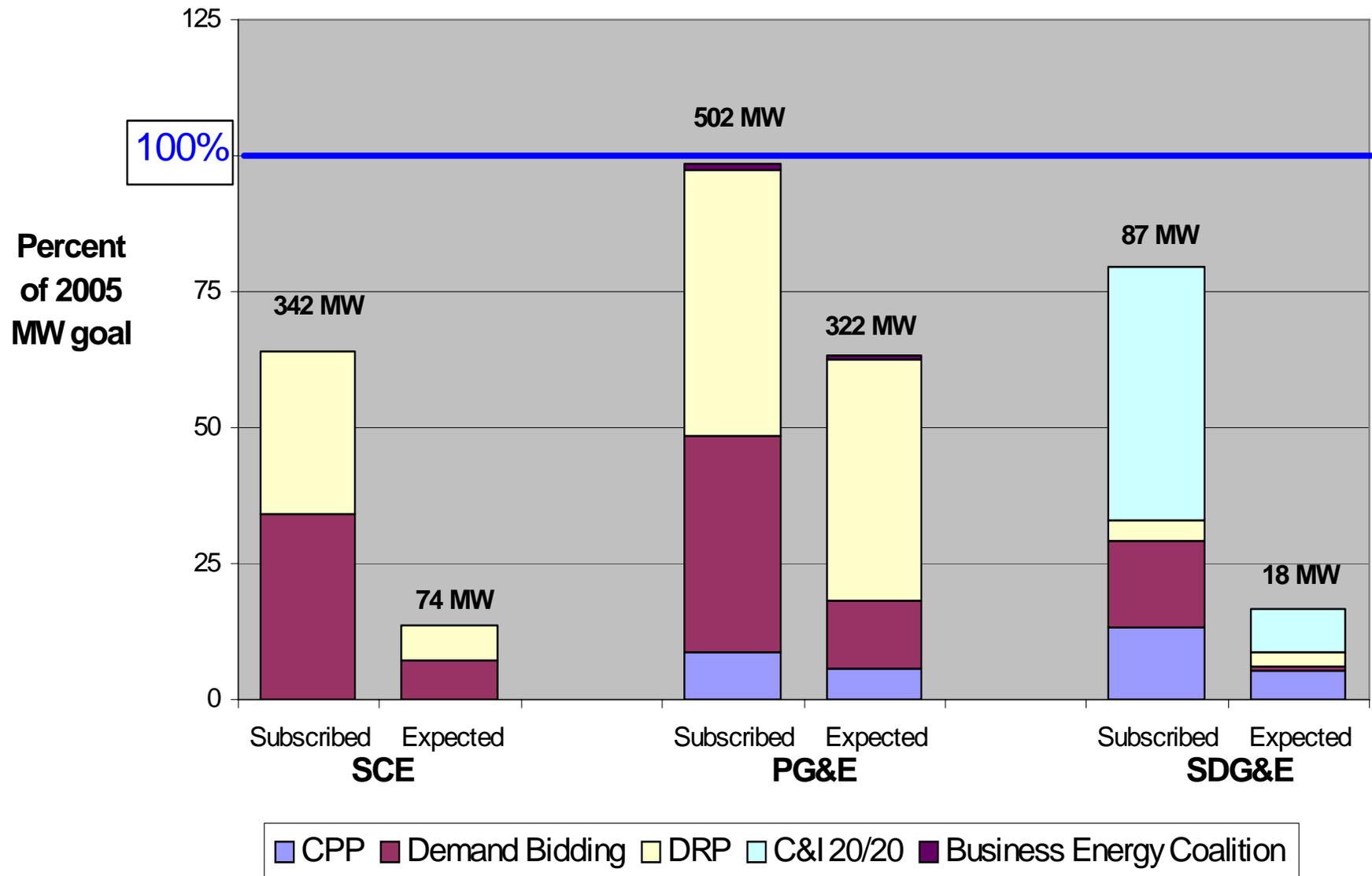
Types of Demand Response- (Tariffs/Programs)	Key Objectives
Economic or Day Ahead- (CPP tariffs, DRP, Demand Bidding, SDGE 20/20) –Requires AMI network installed	Reduce peak portion of annual load duration curve and thus procurement costs; increase system load factor to lower overall costs
Emergency or Day Of Programs- (Interruptible tariffs, AC cycling, Auto DR systems)- AMI optional, other communication channels possible	Provide firm load drops within 5 minutes to an hour of signal during stage 2 or 3 emergencies; obviate need for rolling blackouts



Have Demand Response Goals been
Met by Price Responsive and or
Emergency DR programs?

- See next three slides

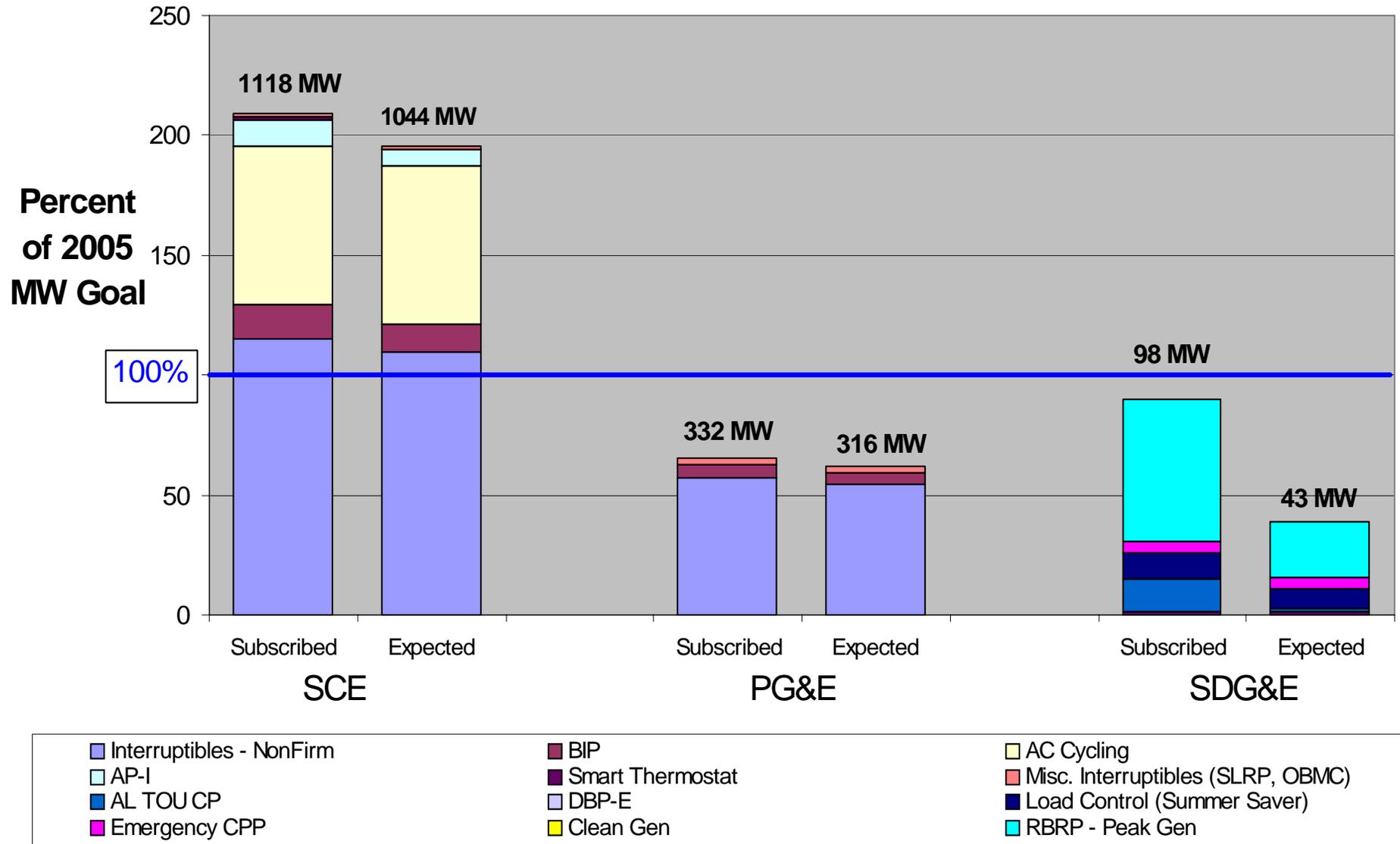
Price Responsive/Day-Ahead Demand Response Program MWs as a Percentage of the 2005 DR Goals



Why were Price Responsive DR goals not met in 2005?

- Lower than expected voluntary customer participation in CPP rates for large customers (3%)
- Perception by large customers that benefits of DR programs/tariffs do not off-set the cost to participate.
- Sticker shock effect for customers- focus on high CPP peak rate not discount on 90% of usage. Customer education/marketing can be improved.
- Large customer groups resistance to **default CPP**; believe that default CPP rates are unfair and punitive.
- DR from small commercial and residential customers awaits completion of AMI systems

Emergency/Day-of Demand Response Program MWs as a Percentage of the 2005 DR Goals

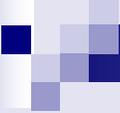


Status Update for Advanced Metering Infrastructure Deployment

Utility	Status	Key Issues
PG&E	Pre-deployment of 5000 meters in Vacaville; Draft CPUC decision 6/06	Voluntary CPP rates, Projected DR benefit/value, AMI project cost-effectiveness; No load control technology or auto DR proposals ;cost recovery
SDG&E	System testing, Vendor selection in 2nd quarter of 2007; AMI supplemental filing on 3/28/06: Draft decision on 11/06, 2.5 years rollout starting mid 2008	AMI project cost-effectiveness; Default CPP for medium-large C/I customers, & peak rebates for residential customers; Business case is based on estimated technology costs;

AMI Status (continued)

Utility	Status	Key Issues
SCE	Phase 1-System design and technology evaluation Phase I (18 months: 2/05-6/07): Phase 2 Business case- 7/07-6/08--No AMI application pending	✓7½ yr. timeframe for AMI development and deployment; ✓Business case analysis and application filing is expected to be filed on 12/08.



Status of AMI for Major Municipal Utilities

- SMUD proceeding to install 5 minute interval meters for all customers, 60,000 meter phase 1 underway- Full implementation may begin 1/1/2007
- Anaheim- completed meter pilot in 2006, Moving ahead with two vendors to complete business case by August 2006; vision is to deploy to all customers over next 5 years

Key Proceedings Affecting Level of Demand Response to be Achieved

- PG&E, SDG&E and SCE AMI applications
- '06-'08 DR Programs/Budget applications (approved March '06)
- **Default** CPP rate decision for large customers
 - 2 DD's out, final decision in May 2006
- CEC Title 24 update (covered in next presentation)
- Resource Adequacy Counting Rules- affect value of **DR** and impact on reserve requirements

Recommendations to Update DR goals

- Consider re-setting DR goals in winter of 2006 after DR evaluation protocols adopted and CPP rate decisions for large customers are final
- Possible Re-Set Options for DR Goals:
 - Set separate goals for customer classes
 - Set separate goals for different types of Dr programs