# Update on Progress Toward Meeting State's Demand Response Goals

Energy Action Plan Update
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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:

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

**Current Action Items:**

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

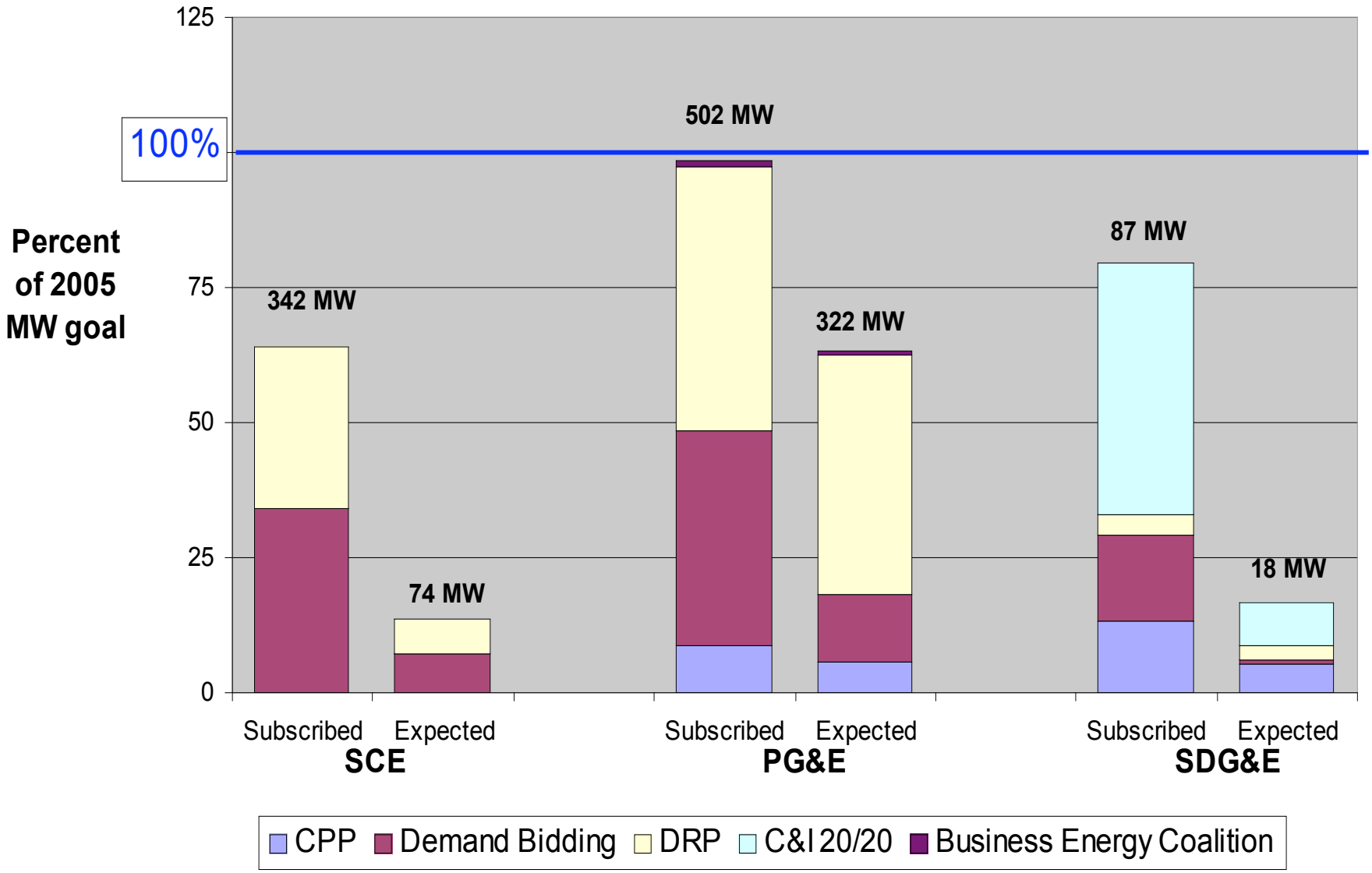
# Two Types of Demand Response

| 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

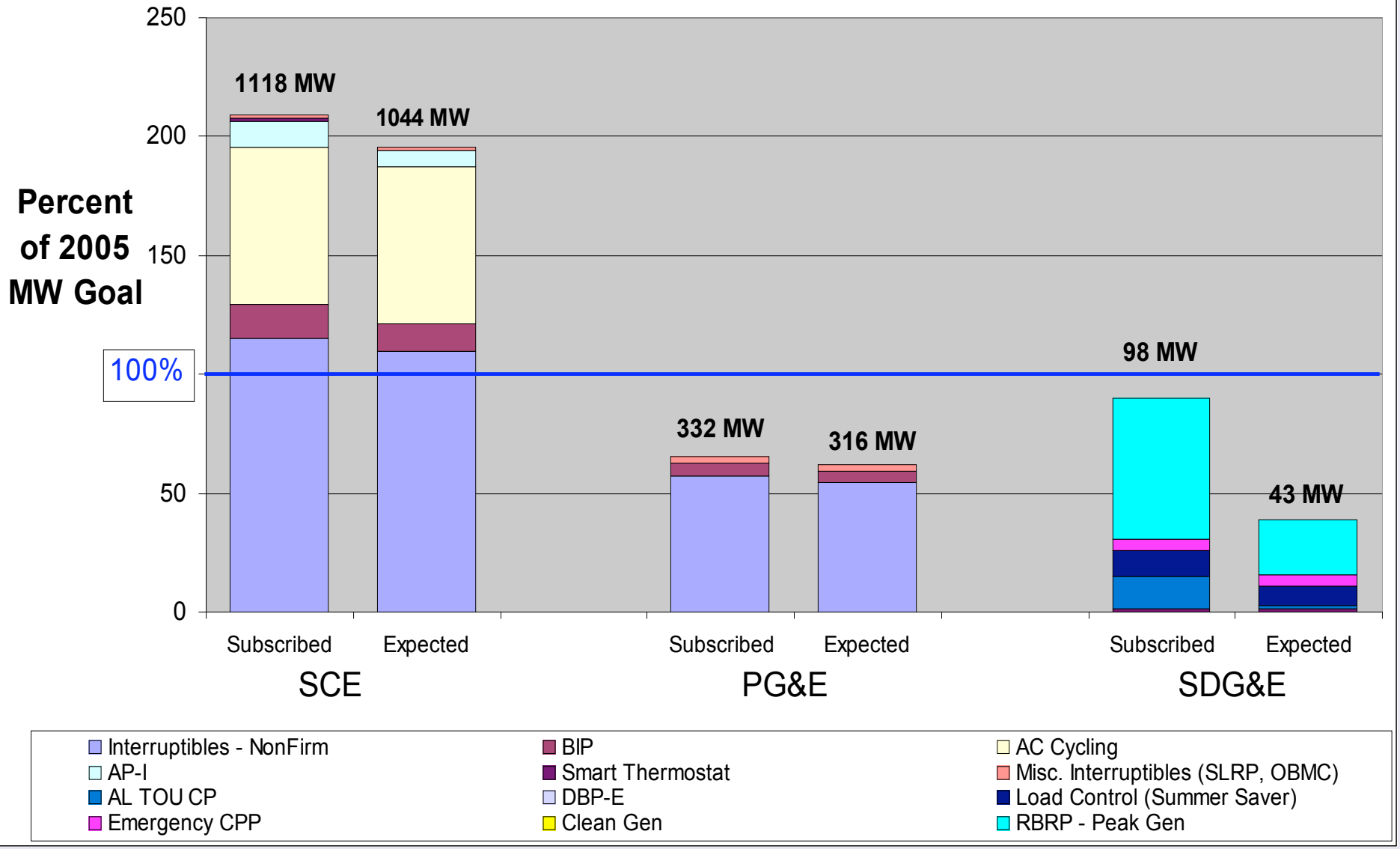
# Price Responsive/Day-Ahead Demand Response Program MWs as a Percentage of the 2005 DR Goals



# 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;<br>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 res customers;<br>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;<br>✓Business case analysis and application filing is expected to be filed on 12/08. |

# 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