

# DEMAND RESPONSE PROGRAMS ANNUAL SUMMARY

2007 Results  
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## Introduction and Executive Summary

In response to the energy crisis experienced in California in 2000 and 2001, the California Public Utilities Commission (Commission) directed the state's Investor-Owned Utilities to develop and implement various Demand Response Programs (DRPs) to help alleviate potential problems on the state's electric system by encouraging customers to reduce electric loads during periods of peak demand or other system operational constraints or emergencies. The portfolio of DRPs has grown and expanded since the inception of these programs, and now is a vital component of the State's Energy Action Plan, and a primary element of the utilities' resource mix. SDG&E's incremental costs associated with its DRPs are tracked in the Advanced Metering and Demand Response Memorandum Account (AMDRMA), with an annual transfer of the AMDRMA balance into the Rewards and Penalties Balancing Account (RPBA) for review and recovery in rates.

On June 9, 2004, the Commission issued D.04-06-011, which approved a number of SDG&E's initial proposals to establish a portfolio of DRPs, the initial of which were third-party proposals to address short-term and long-term grid reliability needs through demand reduction programs. One of the first programs to be established, the Summer A/C Saver (now known as the Summer Saver Program), is a direct load control program that enables the cycling of enrolled residential and small commercial customer equipment. The Summer Saver Program is classified as a Day-Of, Reliability Program.

Through a series of subsequent Decisions and Resolutions, the Commission has adopted additional DRPs for SDG&E, as well as a number of ongoing enhancements to the initial programs. Through SDG&E's various proposals, and subsequent Commission approval, SDG&E has continually expanded its DRP portfolio, with these ongoing enhancements all designed to both reach a larger group of eligible customers, and encourage greater levels of enrollment, participation and, ultimately, a higher level of load reduction during periods of high energy prices, constrained energy supplies or system operational constraints or operating emergencies.

In D.06-03-024, dated March 15, 2006, the Commission adopted the uncontested Amended Settlement of 2006 -- 2008 Demand Response Programs. The Amended Settlement was filed by SDG&E, PG&E, SCE and all other interested parties participating in A. 05-06-006, A. 05-06-008 and A. 05-06-017, the Applications of PG&E, SCE and SDG&E, respectively, proposing Demand Response Programs and related budgets for the 2006 – 2008 program cycle. The portfolio of programs was designed to maximize the potential demand response from customers during periods of peak demand, and to achieve the targeted load reduction goals previously established by the Commission in D. 03-06-032. SDG&E's 2006 – 2008 DRP portfolio consists of a mix of Day-Ahead and Day-Of programs, a long with various supporting Customer Education, Awareness and Outreach initiatives, and a Technical Assistance/Technology Incentives Program, all intended to provide a variety of programs and program options from which customers can choose to maximize participation and results.

In August, 2006, through a series of Assigned Commissioner's Rulings (ACR's), SDG&E was directed to develop and file, by August 30, 2006, proposed DRP program expansions and augmentations for 2007 and 2008. These proposed augmentations were aimed at "promot(ing) system reliability during the summer peak demand periods of 2007 and 2008"<sup>1</sup>, by enhancing and expanding the level of participation and results in SDG&E's DRP portfolio.

By D. 06-11-049, dated November 30, 2006, the Commission adopted a majority of the proposed modifications to SDG&E's DRP portfolio, as were incorporated in SDG&E's August 30, 2006 DRP augmentation proposal. Among the DRP enhancements adopted by D. 06-11-049 were such program changes as increased incentives offered under certain DRPs, revision of program event triggers to provide for added flexibility as to when program events would be initiated, provisions for increased participation by third-party aggregators, improved and streamlined enrollment procedures and certain new program options. Additionally, D. 06-11-049 adopted enhancements to the existing Technical Assistance/Technology Incentives (TA/TI) Programs, including the establishment of a new Automated Demand Response (AutoDR) program component, and directed the issuance of Requests for Proposals (RFP's) to pursue bilateral arrangements for permanent load shifting.

The following major SDG&E programs were approved by D.06-03-024, or newly-established or augmented by D. 06-11-049, for the 2006 – 2008 program cycle:

**1. Day-Ahead Notification Programs**

- Voluntary Critical Peak Pricing Program (CPP-V)
- Demand Bidding Program (DBP)
- Peak Day 20/20 Program
- Capacity Bidding Program (CBP)—new program approved in 2006 for 2007 implementation, with both Day-Ahead and Day-Of Notification program components

**2. Day-Of Notification Programs**

- Emergency Demand Bidding Program (DBP-E)
- Base Interruptible Program (BIP)
- Emergency Critical Peak Pricing Program (CPP-E)<sup>2</sup>
- Residential Smart Thermostat Program (program terminated effective 12/31/07)
- Rolling Blackout Reduction Program (RBRP) (now known as the Peak Generation Program)

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<sup>1</sup> See D. 06-11-049, mimeo, at page 2.

<sup>2</sup> This program is covered in SDG&E's Demand-side Management Programs Annual Summary, Program Years 1994-1997, May 2006.

- Summer Saver Program

**3. Technical Assistance and Technology Incentives Programs**

- Technical Assistance (TA)
- Technology Incentives (TI)

**4. Education, Awareness & Outreach Programs**

- Customer Education, Awareness and Outreach
- Flex Your Power! And Flex Your Power Now! (FYPN)
- Emerging Markets
- Community Outreach
- Circuit Savers

**5. Other Programs**

- In-Home Display Program
- Permanent Load Shifting RFP
- Clean Generator Program
- SDG&E Customer Relationship Management (CRM) System

In addition to the programs authorized by D. 06-03-024 and D. 06-11-049, the following programs are also components of the DRP portfolio, and are funded, either in part or in total, through SDG&E's Cost of Service/General Rate Case proceedings, or through SDG&E's Long-Term Resource Procurement RFP process:

1. Optional Binding Mandatory Curtailment Program(OBMC—Day-Of Reliability Program)
2. Scheduled Load Reduction Program (SLRP—Day-Of Reliability Program)
3. Rolling Blackout Reduction Program (PeakGen--Day-Of Reliability Program)
4. Summer A/C Saver Program
5. Peak Generation Program (PGP—Day-Of Reliability)

During the summer months of 2006, largely in response to record-setting electricity demands statewide and the threats of supply shortages, SDG&E proposed several emergency revisions to its Commercial & Industrial Peak Day 20/20 program, both to expand the availability of that program as a DRP resource, and to expand the scale of customer incentive payments provided for an expanded range of load reductions. Those emergency revisions were approved by the Commission in Resolution E-4011, dated August 24, 2006, and were put in place for the remaining summer months of 2006. In large part, SDG&E sought to continue, and expand, those enhancements into 2007 and 2008 by its August 30, 2006 DRP augmentation proposals noted above. As noted above, those program enhancements and augmentations were approved by the Commission in D. 06-11-049.

The details of SDG&E's DRP portfolio and the results of program activities are described in the following sections, and are statistically presented in the tables contained in the Appendix attached to this report. The load reduction results and financial summaries are reflected in Table 1, while Table 2 presents a summary of the various demand response program events called during 2006. The financial information presented in Table 1 reflects not only the program expenditures for 2007, but also the anticipated activity for 2008, the final remaining year in the 2006 – 2008 program cycle.

## Day Ahead Notification Programs

### **Voluntary Critical Peak Pricing Program (CPP)**

#### Program Description

The Voluntary Critical Peak Pricing Program (CPP-V) provides lower energy rates to customers on non-CPP event days year round, and higher on-peak energy rates applicable during critical peak hours on CPP program event days. Customers are provided advance notice of CPP program events on a day-ahead basis. CPP program events may be triggered by temperature, system load or emergency conditions, may be called between the hours of 11:00 am and 6:00 pm on weekdays. Program events are limited to a maximum of 15 per year during the months of May through September.

#### 2007 Results

Key activities in 2007 included ongoing marketing efforts through direct customer contact, demand response program seminars, and rate analysis support to SDG&E Account Executives. In 2007 there were 62 customers (representing 239 service accounts) enrolled in the CPP-V Program, representing a load reduction potential of approximately 21.2 MW. During the summer of 2007, SDG&E called 9 CPP-V events, resulting in an average hourly load reduction of 16 MW.

### **Demand Bidding Program (DBP)**

#### Program Description

The Demand Bidding Program (DBP) is a voluntary program whereby participating customers can earn bill credits by reducing a minimum of 10% of their power consumption when requested to do so by SDG&E. Customers with a minimum demand of 20 kW are eligible to participate in the program. Participating customers submit day-ahead bids to curtail load within specific DBP hourly event time blocks. Customers bid the amount of megawatts that they can reduce on days that the utility requires demand reduction. SDG&E may activate DBP events on days when its electric system requires load reductions, whether triggered by temperature, system load conditions, or other system operational or emergency conditions. Participants are compensated only for the actual amount of load reduction they provide during program events, and they must reduce at least 10 percent of average monthly maximum demand per participating meter. Load reductions can vary from hour to hour within a single event to receive compensation. If customers bid a load reduction, but do not perform, they receive no incentive payment, and incur no penalty.

#### 2007 Results

Key activities in 2007 included marketing activities, such as direct customer contact and demand response program seminars, customer enrollment, systems and customer communications tests,

and ongoing program management. SDG&E revised the DBP event trigger so that the program is only called when load reduction is actually necessary, rather than simply when a pre-determined temperature or system load value is attained. Through these efforts, 47 customers, representing 313 service accounts, and 11 MW of potential load reduction were enrolled in the summer of 2007. During the summer of 2007, SDG&E called 9 DBP events, resulting in an average hourly load reduction of 1.4 MW.

### **Peak Day 20/20 Program**

#### **Program Description**

The Peak Day 20/20 program is structured to provide qualifying customers with up to a 20% bill credit on all on-peak charges in exchange for an average load reduction of up to 20% in consumption across all program event days within a billing cycle. The program provides for a graduated scale of incentives of between 10% and 20% for load reductions of the corresponding percentage. Peak Day 20/20 program events may be activated based on specified temperature and system electric load conditions, or as warranted by extreme operational or emergency conditions.

#### **2007 Results**

Key activities in 2007 included program design, marketing activities, customer enrollment, and ongoing program management. SDG&E had 405 customers, representing 833 service accounts, enrolled in the Peak Day 20/20 program during 2007. This enrollment provided for a potential load reduction of 34.45 MW. During the summer of 2007, SDG&E called 9 program events, resulting in an average load reduction of 5.59 MW.

Due to the heat storms that struck California during the summer of 2006, SDG&E proposed several emergency changes to the Peak Day 20/20 program for the remainder of the 2006 summer season, which were approved by the Commission in Resolution E-4011. The changes, which were designed to both preserve existing program enrollments as well as encourage additional program enrollments, expanded the customer incentive structure to provide for graduated scale of bill credits of 10% for a 10% load reduction, up to a maximum 20% bill credit for a 20% load reduction, or greater. Additional changes included a revision to the program trigger, to provide that program events would only be called when load reductions were necessary, rather than when pre-determined temperature and system load criteria were reached. SDG&E proposed to continue these changes into the 2007 and 2008 program years, which the Commission approved in D. 06-11-049.

### **Capacity Bidding Program (CBP)**

#### **Program Description**

The Capacity Bidding Program is a new voluntary program, which became effective on June 1, 2007. Participating customers commit to reduce their power consumption during program



events. Customers may enroll in the program either directly through SDG&E, or may do so as part of an aggregated group of customers through a third-party aggregator who is under contract with SDG&E. The CBP combines various elements of existing DR programs with new design elements, and features both a Day-Ahead and a Day-Of notification component. Each component in turn features a variety of program products from which participating customers may select, each with varying lengths of load curtailment duration. Program incentive payments are based on monthly nominated load reductions, and vary in amount based on the program product selected. The CBP also incorporates non-performance penalty provisions in the event that a participating customer fails to deliver the nominated load reduction during a program event. Non-residential customers with peak demands of 20 kW or greater are eligible to participate in the CBP.

### 2007 Results

CBP replaced the previous California Power Authority Demand Reserves Partnership Program (CPA-DRP) when it expired in May, 2007. CBP was filed by Advice Letter 1799-E, and was approved by the Commission in Resolution E-4020, dated October 19, 2006. As directed by Resolution E-4020, SDG&E worked closely with PG&E and SCE, as well as with APX and a number of third-party Aggregators to implement the rollout of the CBP in May, 2007.

The new CBP has proven to be one of the most successful and well-received programs in its first year of operation. Much of that success appears to have been the result of the efforts of the third-party aggregators, who were successful in reaching a broader array of small and medium-sized customers. Total participation in both the Day-Ahead and Day-Of notification program products was 58 customers, representing 185 service accounts. This enrollment provided a potential demand reduction of 21.2 MW. In 2007, 19 CBP events were called. Because nominated load reductions from participating customers are allowed to vary on a month-to-month basis, the actual load reduction amounts also varied month-to-month, with the largest load reduction from CBP occurring in July, 2007, at 15.2 MW.

## Day-of Programs

### **Emergency Demand Bidding Program (DBP-E)**

#### Program Description

The Emergency Demand Bidding Program (DBP-E) is a voluntary program whereby participating customers submit day-of bids to curtail load within demand bidding event time blocks. Participating customers bid the amount of load (in megawatts) that they anticipate being able to reduce on days that SDG&E requires demand reduction. SDG&E typically will call a program event primarily during a system reliability emergency, including a CAISO warning, a Stage 1 alert, a pre-Stage 2 alert, or local system emergency as SDG&E may determine. Participants are compensated only for the actual amount of load reduction they provide, and they must reduce at least 10 percent of average monthly maximum demand per participating meter. Load reductions can vary from hour to hour within a single event to receive compensation; however, if participating customers submit a bid but do not deliver an actual load reduction, they receive no incentive payment, nor is there a penalty.

#### 2007 Results

Key activities in 2007 included program design, contract and tariff development, marketing activities including direct customer contact and demand response program seminars, customer enrollment, systems and customer communications tests, and ongoing program management. Despite these efforts, no customers were enrolled in the program during 2007. During the summer of 2007, SDG&E called no DBP-E events.

### **Base Interruptible Program (BIP)**

#### Program Description

The Base Interruptible Program (BIP) provides a monthly incentive payment to customers who commit to reduce their electricity demand by 15 percent or a minimum of 100kW, whichever is greater, when requested for up to a 4-hour period per day during periods of high electric demand or other system emergency conditions. The program is designed for customers who have a firm load reduction plan in place, and can reduce load with certainty when requested. The program provides for a penalty for non-performance that is larger than the incentive payment in the event that the customer fails to meet its load curtailment commitment.

#### 2007 Results

Key activities in 2007 included program design modifications, which included expansion of the program to permit third-party aggregators to participate, and a lowering of the non-performance penalties. Program marketing activities included direct customer contact, demand response program seminars, and ongoing program management. Three customers maintained enrollment

in BIP in 2007, representing a potential demand reduction of 1.7 MW. During 2007, SDG&E called two BIP events, resulting in 1.9 MW of load reduction.

### **Emergency Critical Peak Pricing Program (CPP-E)**

#### **Program Description**

The Emergency Critical Peak Pricing Program provides lower rates to customers on non-CPP-E event days year round, and higher energy rates during CPP-E event days. Non-residential customers with a minimum demand of 300 kW, and who have an IDR meter and telecommunications equipment and are served on a time-of-use electric rate, are eligible to participate in the CPP-E program. The program is targeted at customers who have the ability to modify their business operations in order to curtail energy consumption with very little notice. Customers are provided 30-minutes advance notice of a program event on the day that load reduction is needed. CPP-E events can be called year round, limited to a maximum of 80 hours per year.

#### **2007 Results**

Program modifications approved by the Commission during 2007 included a provision for the waiver of the customer's maximum demand charge during non-CPP-E periods on a CPP-E event day. Key program activities in 2007 included marketing through direct customer contact, demand response program seminars, and SDG&E Account Executives. In 2007 there were 8 customers (representing 10 service accounts) enrolled in CPP-E, representing 5.0 MW of potential load reduction. During the summer of 2007, SDG&E called two CPP-E events, resulting in an average hourly load reduction of 3.1 MW.

### **Residential Smart Thermostat Program**

#### **Program Description**

The 2007 Residential Smart Thermostat program is intended to measure an interactive approach to residential load control and demand response using Smart Thermostats and the Internet to affect air conditioning use. Smart Thermostats enable SDG&E to remotely raise the temperature set points on the thermostat when load reductions are necessary during periods of peak demand or other extreme conditions. Program participants may 'override' the re-setting of the thermostat, but will forfeit \$5 per event day of their annual program incentive payment of \$75 per override. Customers can have multiple smart thermostats per central a/c if the customer has different zone settings for their home. By previous Commission authorization, the Residential Smart Thermostat Program was scheduled to terminate on December 31, 2006, but was extended for one additional year, with termination set for December 21, 2007.

## 2007 Results

Key activities in 2007 included ongoing program management of existing enrollment and participation, as well as planning activities for the termination of the program at the end of 2007. Through these efforts, 3,920 thermostats have been installed and maintained in 3,571 customer homes representing a potential load reduction of 1.4 MW. SDG&E activated ten Smart Thermostat program events in 2007, with an average of 75% participation by enrolled customers.

### **Rolling Blackout Reduction Program (RBRP)**

#### Program Description

The Rolling Blackout Reduction Program (RBRP) (marketed as the Peak Generation Program) permits SDG&E to call on customer-owned emergency backup generators (BUGs) when firm load reductions are required by the CAISO. Customers receive an incentive payment of \$0.35 per kWh of load reduction

## 2007 Results

Key activities in 2007 included marketing activities, through both direct customer contact and demand response program seminars, customer enrollment, site surveys, installation of generation output meters, systems and customer communications tests, and ongoing program management. At year-end there were 28 customers, representing 60 service accounts, with an estimated potential load reduction of 29.7 MW enrolled in the program. Several major customer accounts that had previously been enrolled in this program opted to enroll in the Capacity Bidding Program (CBP), once that program was established during 2007, thereby diminishing the enrollment and participation in RBRP. In 2007, the first and thus far only, RBRP event was called during the October, 2007 firestorm that struck San Diego County. Because a number of customer operations were already shut down due to the firestorm, response from RBRP participation amounted to just 6.7 MW.

### **Summer Saver Program**

#### Program Description

The Summer Saver Program utilizes direct load control during the summer months to manage customer end-use equipment—specifically central air conditioning units, electric water heaters and pool pump motors. The program is designed for residential and small commercial customers with an average demand of 100 kW or less, and is marketed and administered by SDG&E's third-party contractor Comverge, Inc. Participating customers are paid a program incentive of \$25/kW of estimated demand reduction per year.

## 2007 Results

Following the issuance of D. 06-11-049, which approved SDG&E's proposals to expand the cycling options offered under the Summer Saver Program, SDG&E filed Advice Letter 1871-E-A, proposing a series of second amendments to its contract with Comverge. The amendments expanded the program to include additional residential customer cycling options, and added a

new cycling option for non-residential customers, and the addition of weekend program events. The amendments provided for participating residential customers cycling at the 100% level to receive a higher, \$50/kW program incentive payment. Through the amendments, SDG&E and Comverge agreed to an expansion of the program to 45MW, with a Comverge option to further expand the program up to 100 MW. Resolution E-4078 approved SDG&E's proposed contract amendments.

Key activities in 2007 included program design, marketing activities, customer enrollment, and ongoing program management. SDG&E worked with Comverge to develop, market, test and further implement the Summer A/C Saver program and the new program cycling options and inclusion of weekend program events. A new robust website for the program was also introduced during 2007. Through these efforts, 19,082 customers were enrolled in the Summer A/C Saver program as of year-end, representing a potential load reduction of 45 MW. There were a total of twelve program events called in 2007, resulting in an estimated load reduction of 23 MW per event.

## Technical Assistance and Technology Incentives Programs

### **Technical Assistance Program (TA)**

#### Program Description

The Technical Assistance Program (TA) provides business customers with demands of 20 kW and above on-site facility evaluations ranging from simple site assessments to comprehensive engineering studies to identify demand response potential. Eligible customers may select a qualified engineer or firm of their choosing, or SDG&E can assign the audit to a qualified firm. Results of the TA audit include specific recommendations and calculations of the associated kW load reduction potential. If the customer selects a qualified firm to conduct the audit, the TA program will provide an incentive payment of \$100/kW for identified and approved demand response measures, not to exceed the actual cost of the assessment and audit.

#### 2007 Results

SDG&E's Account Executives were very aggressive and successful in promoting SDG&E's TA program to their customers in 2007, with a focus on preparing their customers for the new Default Critical Peak Pricing (CPP-D) rate structure anticipated to become effective during 2008. The TA program achieved a 46% increase in the number of approved audits in 2007, as compared to 2006. There were 444 audits completed in 2007, with 47 MW of approved load reduction potential. Due to the sharp increase in activity in the TA program, SDG&E continued its work to streamline and improve the process flow associated with the audits. The TA team added several audit and audit review engineering resources during 2007. Responses to the TA audit process from customers have indicated that customers view TA as a valuable tool to help them identify and quantify load reduction potential and their ability to participate in DR programs, as well as in identifying energy efficiency opportunities.

Marketing activities included direct customer contact, demand response program seminary and ongoing program management. SDG&E distributed approximately 3,500 pieces of TA/TI collateral in 2007.

### **Technology Incentives Program (TI)**

#### Program Description

The Technology Incentives program (TI) provides incentive payments to help eligible customers pay for/off-set the costs of installing specific demand response enabling technology and/or equipment as identified in the TA assessment and audits. The 2007 incentive payment is \$250/kW of load reduction verified by SDG&E, not to exceed the actual total cost of the installed equipment. Incentives are paid on measures or equipment that can actually produce quantifiable and verifiable load reduction. The incentives are paid on a graduated scale, with the final 50% of the incentive payment contingent upon the customer enrolling in a demand response program for a minimum of one year.

## 2007 Results

In January, 2007, the first participating SDG&E customer conducted a load shed test to validate the load reduction technology that had been installed under the TI program. Following this initial test, SDG&E further refined the load shed test plan, and throughout the remainder of 2007, SDG&E conducted 85 successful load shed tests, with a combined 5.8 MW of load reduction capability. Third-party aggregators and EMS/Controls vendors were instrumental participants with SDG&E in promoting the TA/TI program.

In response to the direction in D. 06-11-049, SDG&E established a new Automated Demand Response (AutoDR) component to the TA/TI program, which specifically targets automated technologies in the implementation of demand response strategy. SDG&E worked closely with vendors and consultants such as the Lawrence Berkeley National Laboratory, Akuacom, APX and Site Controls, LLC., to develop and demonstrate various AutoDR strategies and technologies for use in automating customer participation in and response to the Capacity Bidding Program.

Marketing activities included direct customer contact, demand response program seminars and ongoing program management, as well as interaction with SDG&E's Account Executives who, in turn, work directly with their assigned customer accounts to identify and develop load reduction potential with their customers.

## Education, Awareness & Outreach Programs

### **Customer Education, Awareness & Outreach**

#### Program Description

The Customer Education, Awareness & Outreach program has the following components designed to help customers manage their load:

A major part of SDG&E's customer awareness focus will be on a large-scale deployment of kWickview, SDG&E's online data presentment tool. kWickview allows customers to view their 15-minute interval data, that and provides customers with the message that *when* you use energy is just as important as *how much*." An additional feature that allows customers to view their DRP event performance in summary form was added to kWickview during 2007.

The PEAK Student Energy Actions Program -- a partnership with the Energy Coalition -- is a comprehensive student learning experience intended to teach youth the value of "smart energy management." The overall goal of the PEAK program is to instill an efficiency ethic in students through standards-based lessons, hands-on activities, and real-world application in their homes, schools, and communities.

#### 2007 Results

Key activities in 2007 included the development and implementation of a communication plan that includes mass market and targeted communications. Specifically, the tactics executed include 17 weeks of print and radio ads/traffic ids. Pre- and post-awareness studies were conducted to measure marketing and outreach effectiveness. Collateral case study development was undertaken for distribution, and one bill insert was inserted into summer bills. Various workshops were held and the web site pages were revised.

The PEAK Student Energy Actions program distributed 125,000 energy workbooks to 3<sup>rd</sup> – 5<sup>th</sup> graders in the San Diego County school district. The workbook provided energy conservation information that students could take home and implement with the families.

Approximately 5,300 customer accounts have the ability to access to kWickview. SDG&E has been providing kWickview to all customers with Interval Data Recorder (IDR) meters installed.

### **Flex Your Power! And Flex Your Power Now! (FYPN!)**

#### Program Description

As part of overall customer education and awareness endeavors, SDG&E continued its support of the statewide Flex Your Power Now! (FYPN!) campaign. FYPN! is an electricity conservation alert system designed to prevent Stage One Electrical Emergencies. The FYPN! Alert is used to notify California businesses, governments and residents when they should follow specific conservation and load-shifting measures to immediately reduce their electricity use.



SDG&E has continued to develop focused awareness campaigns designed to compliment the FYPN (the energy efficiency component) efforts to be developed in concert with statewide campaign.

### 2007 Results

SDG&E continued to work with SCE and PG&E as well as the CAISO and the Flex Your Power partners to implement the Flex Your Power NOW! alerts as needed in the summer of 2007. The partners included the Flex NOW! message in a variety of communications, including TV and radio ads. The comprehensive media mix included: TV, radio, print, online, website and community events/outreach. Hispanic TV, radio and print were incorporated into the mix as well. The campaign efforts concentrated on high energy use and energy cost periods (summer/winter months). Included in the campaign were two levels of messaging: motivated use of Energy Efficiency and Demand Response products and services, and targeted reduced energy usage during peak periods (Flex Your Power Now and Flex Alerts). The general marketing campaign ran June through September, with a plan that included 11 – 12 weeks of TV, with over 2,420 messages, 12 weeks of radio, with 2,276 spots, and online, with 37,891,428 statewide messages.

In order to gauge the effectiveness of the overall effort, pre and post campaign tracking studies were commissioned to establish metrics that measure changes in target audience awareness levels, attitudes, perceptions and EE/DR behaviors over time. FYP pre/post campaign tracking study implanted: 74% reported awareness of FYP, with 25% reporting having taken specific actions. The associated Greenhouse Gas/global warming umbrella message was very effective at creating a sense of urgency (social marketing). Statewide, an average load reduction of 1,000 – 1,500 MW was observed after Flex Alerts had been announced.

### **Emerging Markets**

#### Program Description

To facilitate coordination among the utilities, the PIER Demand Response Resource Center (DRRC) and other related research at the national and international level, such as the Department of Energy's Demand Response Coordinating Committee (DRCC), SDG&E participates in and co-sponsors demand response research if identified as relevant to the long term strategy to nurture a robust demand response market. These activities can include: participation in local, statewide and national research studies, technology pilots that involve the development and installation of new technological advances, and memberships that support agencies involved in demand response research and further stimulating demand response.

### 2007 Results

In response to D. 06-11-049, SDG&E has incorporated the Lawrence Berkeley National Laboratory's (LBNL) Automated Demand Response (AutoDR) technology as a component of the TA/TI program. Additionally, working in conjunction with the Demand response Research Council of the LBNL, SDG&E continued to fund and support research in AutoDR to (1) develop and demonstrate an open, web-based interoperable automated notification system for aggregator participation in the Capacity Bidding Program (CBP), (2) evaluate the effectiveness of such a

system and aggregator response to this form of automation, and (3) evaluate the type of DR strategies that can be automated for small commercial customers to participate in CBP and to provide effective DR. The research revealed positive findings, showing that aggregators that had fully automated systems were quickly able to automate customer DR to price signals that were sent by the AutoDR server, and receive benefit from participation in the CBP. Other aggregators and commercial customers are working toward full automation, further increasing the value of AutoDR technology.

SDG&E conducted a proof-of-concept demonstration of remote access of residential home area networked (HAN) technologies. The objective of this demonstration was to test remote accessibility of near real time energy consumption, demand response alerts and utility information using a mobile phone. A second objective was to demonstrate and qualitatively compare two open architecture HAN communications technologies (ZigBee and HomePlug) in delivering utility-focused applications within the home. This initial demonstration involved installation of new meters, control devices and in-home displays at a few customers' homes as well as a remote server. Using a mobile phone to send and receive text messages, commands could be sent to the home to control devices and retrieve meter data. Due to the success of this initial demonstration, a larger pilot is planned.

SDG&E started a lighting demonstration project for small buildings in which commercially available lighting control products are used in demand response applications. The objectives are to demonstrate that the technology is both easy to install and can be readily connected to an existing energy management system. Additionally, the demonstration project will evaluate customer behavior from implementing demand response lighting strategies and identify roadblocks to this approach of utilizing low cost lighting technology solutions for demand response. Using a local lighting supplier, devices that combine occupancy sensing, daylight harvesting and flexible lighting control functions into a single, easy-to-install package will be installed and evaluated.

## **Community Outreach**

### **Program Description**

The Community Outreach program includes a load curtailment component with local cities and municipalities, and a joint partnership with local water districts. Eligible communities who enroll in the program agree to reduce load, if possible, when called upon. SDG&E works with these participants to help predetermine possible load shedding activities and help quantify load reduction levels that could be relied upon during an emergency event.

### **2007 Results**

The Community Outreach Business plan was developed and implemented in 2007. The targeted audience was hard-to-reach and underserved areas/communities: 29 cities and 2 Regional Economic Development Councils and over 40 trade/business associations. Ninety three (93) presentations were made at tradeshow, association meetings and business conferences. SDG&E also had the following distribution of materials and messages: 7,000 pieces of DRP program collateral distributed at community events; (working with Customer Communications-related

messaging and articles in 133 trade newsletters, covering 52 organizations; and 33 electronic communications (email blasts).

### **Circuit Savers**

#### **Program Description**

The Circuit Saver program is designed to reduce load on specific electric distribution circuits with the highest summer electric loads. The program prioritizes the application of demand response technologies and programs to those circuits or areas that are experiencing high equipment loading or that experience higher than normal energy usage during peak conditions.

#### **2007 Results**

An outreach campaign was developed for 2007 targeting customers on peak circuits. Community and neighborhood partnerships were utilized to help communicate SDG&E's energy conservation and load reduction messages. Community outreach efforts included information distributed at identified top affected circuit areas (e.g., Lighting Turn-Ins, Energy Fairs, Senior Expos, Homeowner Association (HOA) meetings, and Chamber of Commerce events). Marketing materials were distributed to educate customers on conservation and Demand Response strategies, including information on Demand Response Programs (collateral, applications/enrollment forms). An "Energy Savings Toolkit" was developed for a direct mail campaign to homeowners in the impacted circuit areas. The Energy Savings toolkit included: Residential Rebate Information, Energy Savings Tips, 2 Compact Fluorescent Lightbulbs, low flow showerheads and an LED nightlight. The direct mail campaign for the Energy Savings Toolkit was originally scheduled for in-home delivery in October, but when the October, 2007 wildfire firestorms occurred, the campaign was delayed and rescheduled for December. 1,500 Energy Savings Toolkits were mailed.

## Other Programs

### **In-Home Display Pilot Program**

#### Program Description

The 2007 In-Home-Display Pilot is a voluntary program, authorized by D. 06-11-049, intended to give customers their in-home real-time consumption in terms of total month to date costs, current cost per kWh and monthly kWh usage to date. The pilot program will evaluate behavioral changes in participants' during peak energy use periods attributed to real time usage information provided through the display technology. The pilot program will view changes in the participants' behavior based on having the In-Home-Display and their accordance with a peak energy event day signal.

#### 2007 Results

This 2007 pilot offered a group of 300 residential customers an In-Home Display device. Roughly half of the surveyed pilot participants reported the IHD influenced them to replace appliances in their home with more energy efficient models. Of the appliances replaced, the most common was lighting, followed by refrigerators. The most common appliance that respondents wanted more information on is heating and cooling equipment (reported by 46% of respondents).

### **Permanent Load Shifting (PLS)**

#### Program Description

In D.06-11-049, the utilities were directed to initiate a Request for Proposals (RFP) process to solicit five (5) year proposals from third parties for PLS which can be implemented by summer 2007. SDG&E was authorized to shift up to \$4,000,000 (four million dollars) of its existing demand response budget to PLS. As defined in D. 06-11-049, "Permanent Load Shifting occurs when a customer moves energy usage from one time period to another on an ongoing basis".<sup>3</sup> The commission did not specify a preference for any particular technology but requested the utilities to consider cost effectiveness, ease of implementation, amount of load shifting which can be obtained by the summer of 2007, potential for growth and expansion, and the reliability of the technology. In the RFP issued by SDG&E, PLS of customer end-use equipment is to occur, at a minimum from the period of 11:00 AM to 6:00 PM to the period of 6:00PM to 11:00 AM each weekday (Monday through Friday), excluding holidays, during the summer months May 1<sup>st</sup> through October 31<sup>st</sup>.

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<sup>3</sup> CPUC Decision 06-11-049 (mimeo at p. 49).

## 2007 RFP Results

On January 5, 2007 SDG&E issued a Request for Proposal (RFP) soliciting offers for Permanent Load Shifting. Of the proposals received SDG&E recommended three (3) vendors which all provided different types of PLS Technology which SDG&E requested the Commission to consider for approval to further pursue agreements.<sup>4</sup>

There were several protests letters filed with the Commission in which SDG&E responded to these protests by submitting a letter to the Commission dated March 27, 2007. In compliance with Resolution E-4098 Ordering Paragraph 4, SDG&E was ordered to "... re-evaluate and re-score its PLS proposals without the operational requirement that constant load be shifted regardless of the temperature from May through October and re-file a supplemental Advice Letter with its PLS proposal within 60 days of the effective date of this Resolution".<sup>5</sup> In addition, per Resolution E-4098 the Commission rejected SDG&E's proposed forklift battery re-charging technology proposal.

On September 24, 2007, SDG&E filed Supplemental Advice Letter 1878-E-A. Based on SDG&E's re-evaluation and re-scoring as ordered by the Commission, SDG&E recommendations for PLS remained the same. SDG&E strongly supported and continued to recommend both Technologies, Refrigerated Zone Control Module and Gas absorption/engine-driven air conditioning systems.

On October 29, 2007 the Commission approved Supplemental Advice Letter 1878-A-E, with an effective date of October 25, 2007. SDG&E plans on executing both contracts which will provide PLS in 2008 and beyond.

## **Clean Generator Program**

### Program Description

The Clean Generator program is a third-party program managed under contract between SDG&E and Celerity, Inc. The key element of this program is that Celerity will convert existing diesel-fired units to clean-burning units by installing emission control equipment on these units, and installing software and communications equipment that allow SDG&E to dispatch all or some of these resources with short notice. Celerity will also maintain the converted units, so when the customer does utilize them, they are running cleaner and more efficiently than the unconverted diesel units did. The end result is that when these customers are asked to reduce their use of power, they do so, reducing demand on the grid, yet they can now continue to operate their business using less polluting equipment.

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<sup>4</sup> SDG&E Advice Letter 1878-E.

<sup>5</sup> Resolution E-4098 July 26, 2007 (Ordering Paragraph 4 on page 25)

## 2007 Results

The Celerity contract was approved by Commission Resolution E-3926 in April 2005. Celerity was purchased by EnerNOC in May, 2006 (SDG&E filed Advice Letter 1849-E on December 5, 2006, seeking Commission approval of a revision to the contract to reflect EnerNOC as the new party replacing Celerity). EnerNOC has been working with customers to determine their qualifications for participation in the program and sign qualified customers in 2007. The Commission also approved a contract extension for the customer enrollment and site activation period from December 31, 2006 to May 31, 2007. At year-end 2007, 13 service accounts and 25 MW of load reduction potential were enrolled in the program. Of this, all 25 MW was available for dispatch. In 2007, the program was activated a total of seven times. With just two exceptions, actual load reductions were at or near the enrolled level of 25 MW.

## **SDG&E Customer Relationship Management (CRM) System**

### Program Description

SDG&E's new Customer Relationship Management (CRM) System was included as a component of the Demand Response Programs portfolio enhancements proposed in A. 05-06-017 and authorized by D. 06-03-024. SDG&E proposed the CRM in order to automate a number of separate, manual processes tailored to the specific needs of each Demand Response program, including such issues as program traits, customer enrollments and event performance. The controls enabled by the CRM will facilitate targeting customer accounts for program participation, as well as a variety of customer communications associated with marketing and operating various Demand Response programs. The CRM will be used by SDG&E to administer and manage the Demand Response Programs portfolio, and will ultimately replace four primary legacy systems currently in place. The combination of these four silo systems into one comprehensive system will allow SDG&E to leverage the marketing functionality, data presentment and increased productivity that are associated with the use of a CRM system.

### 2007 Results

During 2007, several phases of the CRM project were successfully completed. The design and construct/build phases of the project were completed during the year. These phases included such tasks as process flow design, development of configuration specifications, development of training materials and test plans. The new CRM system is scheduled to launch in the second quarter of 2008.

## **Cost Of Service-Funded Programs**

### **Optional Binding Mandatory Curtailment Program (OBMC)**

#### **Program Description**

The Optional Binding Mandatory Curtailment Program (OBMC) exempts enrolled customers' circuits from rotating outages in return for a commitment to reduce circuit load by 15% from the previous year baseline, and by at least 10% from the 10-day baseline. Customers incur a penalty of \$6 per kWh for failure to achieve committed load curtailment.

#### **2007 Results**

Feedback from customers has indicated that the potential for significant monetary penalties for failure to meet committed curtailment pledges (\$6.00 per kWh during each hour of the rotating outage) has an impact on participating in the program. SDG&E ended the year with no customers enrolled on the program.

### **Scheduled Load Reduction Program (SLRP)**

#### **Program Description**

The SLRP is a state legislated program that provides for an incentive of \$0.10 per kWh to customers who commit to scheduled load reductions in four-hour blocks on selected weekdays during the period of June 1 - September 30.

#### **2007 Results**

There were no major accomplishments in 2007. At year-end the SLRP program had no participating customers.

# Appendix



Demand Response Programs  
 Table 1  
 2007 Program Results (Through December)

Program Subscriptions	Financial Statistics (\$000)											
	Program Subscription Statistics				Budget				Expenditures			
	MMs	Service Accounts	Administration	Capital	M&E	Incentives	Total	Administration	Capital	M&E	Incentives	Total
<b>Day Ahead Notification Programs</b>												
Demand Bidding Program	10.9	313	\$ 388.3	\$ 62.6	\$ 63.0	\$ 200.0	\$ 733.9	\$ 474.8	\$ 0.1	\$ -	\$ 17.4	\$ 482.3
California Demand Reserves Partnership	0.0	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6.8	\$ -	\$ -	\$ -	\$ 6.8
Capacity Bidding Program	21.2	185	\$ 800.6	\$ 102.6	\$ 102.6	\$ 516.0	\$ 1,419.2	\$ 460.9	\$ -	\$ -	\$ 307.5	\$ 768.4
Commercial/Industrial Peak Day Credit (20/20)	34.5	833	\$ 424.9	\$ 74.3	\$ 83.0	\$ 200.0	\$ 762.2	\$ 291.1	\$ -	\$ -	\$ 37.4	\$ 328.5
Voluntary Critical Peak Pricing Program	21.0	239	\$ 337.2	\$ 42.4	\$ 83.2	\$ -	\$ 462.6	\$ 133.2	\$ (3.7)	\$ (0.6)	\$ -	\$ 128.9
<b>Subtotal</b>	<b>87.6</b>	<b>1,570</b>	<b>\$ 1,851.0</b>	<b>\$ 179.4</b>	<b>\$ 351.6</b>	<b>\$ 916.0</b>	<b>\$ 3,397.9</b>	<b>\$ 1,366.8</b>	<b>\$ (3.6)</b>	<b>\$ (0.6)</b>	<b>\$ 362.3</b>	<b>\$ 1,724.9</b>
<b>Reliability Day-of Programs</b>												
Base Incentive Program	1.8	3	\$ 245.3	\$ 75.1	\$ 51.3	\$ 500.0	\$ 871.7	\$ 69.4	\$ -	\$ -	\$ 81.1	\$ 150.5
Residual Thermal Program	1.4	3,920	\$ 369.8	\$ -	\$ 127.6	\$ 300.0	\$ 797.4	\$ 229.4	\$ -	\$ -	\$ 245.0	\$ 474.3
In-Hour Dispatch	0.0	-	\$ 140.5	\$ 142.7	\$ 127.6	\$ 20.0	\$ 430.8	\$ 144.1	\$ 14.9	\$ -	\$ -	\$ 159.0
Critical Peak Pricing-Emergency Program	5.1	10	\$ 135.1	\$ 65.8	\$ 51.3	\$ -	\$ 252.2	\$ 49.4	\$ -	\$ -	\$ -	\$ 49.4
Emergency Demand Bidding Program	0.0	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>	<b>8.3</b>	<b>3,933</b>	<b>\$ 890.8</b>	<b>\$ 283.6</b>	<b>\$ 357.8</b>	<b>\$ 820.0</b>	<b>\$ 2,352.2</b>	<b>\$ 492.2</b>	<b>\$ 14.8</b>	<b>\$ -</b>	<b>\$ 326.0</b>	<b>\$ 833.2</b>
<b>Technology and Incentives Programs</b>												
Technology Incentives Program	5.8	85	\$ 457.9	\$ -	\$ 44.8	\$ 7,211.3	\$ 7,714.0	\$ 303.6	\$ -	\$ -	\$ 1,003.5	\$ 1,307.1
Technical Assistance Program	46.9	444	\$ 1,178.8	\$ -	\$ 38.2	\$ 750.0	\$ 1,967.0	\$ 497.2	\$ -	\$ -	\$ 1,479.5	\$ 1,976.7
Automated Demand Response	52.7	528	\$ 1,836.6	\$ -	\$ 83.0	\$ 7,981.3	\$ 9,810.0	\$ 800.8	\$ -	\$ -	\$ 2,483.1	\$ 3,283.8
<b>Subtotal</b>												
<b>Education, Awareness &amp; Outreach Programs</b>												
Flex Your Power Now!	5	57	\$ 587.1	\$ -	\$ 83.0	\$ -	\$ 660.1	\$ 473.1	\$ -	\$ -	\$ -	\$ 473.1
Customer Education, Awareness & Outreach	5	2,395	\$ 2,395.9	\$ -	\$ 165.0	\$ 300.0	\$ 2,860.9	\$ 1,397.5	\$ -	\$ -	\$ -	\$ 1,397.5
Emerging Markets	5	1,047	\$ 1,047.0	\$ -	\$ -	\$ -	\$ 1,047.0	\$ 267.2	\$ -	\$ -	\$ -	\$ 267.2
KWickview	5	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 148.7	\$ -	\$ -	\$ -	\$ 148.7
Peak Student	5	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 163.1	\$ -	\$ -	\$ -	\$ 163.1
Community Outreach	5	200.2	\$ 200.2	\$ -	\$ 44.8	\$ -	\$ 245.0	\$ 157.4	\$ -	\$ -	\$ -	\$ 157.4
Circuit Savers	5	185.1	\$ 185.1	\$ -	\$ 44.8	\$ -	\$ 229.9	\$ 165.4	\$ -	\$ -	\$ -	\$ 165.4
<b>Subtotal</b>	<b>0</b>	<b>4,428.3</b>	<b>\$ 4,428.3</b>	<b>\$ 338.5</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,764.8</b>	<b>\$ 2,173.4</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,173.4</b>
<b>Other Programs</b>												
Statewide Pricing Pilot	1.2	12	\$ 1.2	\$ -	\$ -	\$ -	\$ 1.2	\$ 2.0	\$ -	\$ -	\$ -	\$ 2.0
ADRS	138.9	138.9	\$ 138.9	\$ -	\$ -	\$ -	\$ 138.9	\$ 0.5	\$ -	\$ -	\$ -	\$ 0.5
On-Bill Financing	152.7	152.7	\$ 152.7	\$ -	\$ -	\$ -	\$ 152.7	\$ -	\$ -	\$ -	\$ -	\$ -
Competitive Bid	83.0	83.0	\$ 83.0	\$ -	\$ 83.0	\$ -	\$ 83.0	\$ -	\$ -	\$ -	\$ -	\$ -
Cost Benefit Framework	28.2	28.2	\$ 28.2	\$ -	\$ -	\$ -	\$ 28.2	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Report	145.1	145.1	\$ 145.1	\$ -	\$ 86.5	\$ -	\$ 233.6	\$ 611.5	\$ -	\$ -	\$ -	\$ 611.5
Market Research	241.2	241.2	\$ 241.2	\$ -	\$ -	\$ -	\$ 241.2	\$ 523.5	\$ -	\$ -	\$ -	\$ 523.5
IT	438.9	438.9	\$ 438.9	\$ -	\$ 199.6	\$ -	\$ 638.5	\$ 855.2	\$ -	\$ -	\$ -	\$ 855.2
<b>Subtotal</b>	<b>0.0</b>	<b>0.0</b>	<b>\$ 438.9</b>	<b>\$ -</b>	<b>\$ 199.6</b>	<b>\$ -</b>	<b>\$ 638.5</b>	<b>\$ 855.2</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,376.8</b>
<b>ILROPMA</b>												
Summer Saver Program (Converage)	44.5	25,627	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,333.6	\$ -	\$ 209.2	\$ 1,431.2	\$ 4,974.8
Clean Generator Program (Celerity)	25.0	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20.6	\$ -	\$ -	\$ -	\$ 20.6
<b>Subtotal</b>	<b>69.5</b>	<b>25,640</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,354.2</b>	<b>\$ -</b>	<b>\$ 209.2</b>	<b>\$ 1,431.2</b>	<b>\$ 4,995.5</b>
<b>Programs in General Rate Case</b>												
Peak Generation	29.7	60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57.1	\$ -	\$ -	\$ -	\$ 57.1
Optional Binding Mandatory Curtailment Program	0.0	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.1	\$ -	\$ -	\$ -	\$ 0.1
Scheduled Load Reduction Program	0.0	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.1	\$ -	\$ -	\$ -	\$ 0.1
AL-TOUCP	0.0	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.0	\$ -	\$ -	\$ -	\$ 0.0
BIP	29.7	60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57.3	\$ -	\$ -	\$ -	\$ 57.3
<b>Subtotal</b>	<b>247.8</b>	<b>31,732</b>	<b>\$ 9,343.8</b>	<b>\$ 463.0</b>	<b>\$ 1,330.5</b>	<b>\$ 9,697.3</b>	<b>\$ 20,834.4</b>	<b>\$ 9,699.8</b>	<b>\$ 11.3</b>	<b>\$ 732.0</b>	<b>\$ 4,605.8</b>	<b>\$ 15,048.8</b>

Notes:

Table I-4  
San Diego Gas and Electric  
Interruptible, Curtailment and Demand Response Programs  
2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Tolled Hours (Annual)	Program Tolled Events (Annual)	Comments
n/a	January-07	None	-						
n/a	February-07	None	-						
n/a	March-07	None	-						
n/a	April-07	None	-						
n/a	May-07	None	-						
n/a	June-07	None	-						
1	7/3/2007		CBP - Day Ahead	Statewide or local extreme system conditions or Market price >= 15,00 btu/kWh heat rate	9.10	4:00			Preliminary numbers, not all data available as of 8-01-07
2	7/3/2007		CBP - Day Of	Statewide or local extreme system conditions or Market price >= 15,00 btu/kWh heat rate	5.40	4:00			Preliminary numbers, not all data available as of 8-01-07
3	7/3/2007		CleanGen	Stage 2 Emergency or a Stage 1 Alert (with a Stage 2 Emergency imminent) or high peak prices	15.90	6:00			
4	7/3/2007		Summer Saver	CAISO Stage 1 or Stage 2 Alert, Local Transmission or Distribution Emergency	24.60	4:00			Preliminary numbers, not all data available as of 8-01-07
5	7/5/2007		CBP - Day Ahead	Statewide or local extreme system conditions or Market price >= 15,00 btu/kWh heat rate	9.10	6:00			Preliminary numbers, not all data available as of 8-01-07
6	7/26/2007		CBP - Day Of	Statewide or local extreme system conditions or Market price >= 15,00 btu/kWh heat rate	5.40	4:00			Preliminary numbers, not all data available as of 8-01-07

Table 1-4  
San Diego Gas and Electric  
Interruptible, Curtailment and Demand Response Programs  
2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Tolled Hours (Annual)	Program Tolled Events (Annual)	Comments
7	7/27/2007		CBP - Day Ahead	Statewide or local extreme system conditions or Market price >= 15,00 btu/kWh heat rate	9.10	6:00			Preliminary numbers, not all data available as of 8-01-07
8	7/27/2007		CBP - Day Of	Statewide or local extreme system conditions or Market price >= 15,00 btu/kWh heat rate	5.40	6:00			Preliminary numbers, not all data available as of 8-01-07
9	7/27/2007		Smart Thermostat	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	1.00	3:00			
10	7/27/2007		Summer Saver	CAISO Stage 1 or Stage 2 Alert, Local Transmission or Distribution Emergency	27.60	4:00			Preliminary numbers, not all data available as of 8-01-07
11	8/14/2007		CleanGen	Emergency or a Stage 1 Alert (with a Stage 2 Emergency imminent) or high peak prices	21.41	3:00			
12	8/14/2007		Summer Saver	CAISO Stage 1 or Stage 2 Alert, Local Transmission or Distribution Emergency	0.00	2:00			
13	8/15/2007		CBP - Day Ahead	Statewide or local extreme system conditions or Market price >= 15,00 btu/kWh heat rate	9.10	3:00			
14	8/15/2007		CBP - Day Of	Statewide or local extreme system conditions or Market price >= 15,00 btu/kWh heat rate	6.10	4:00			

Table I-4  
San Diego Gas and Electric  
Interruptible, Curtailment and Demand Response Programs  
2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Tolted Hours (Annual)	Program Tolted Events (Annual)	Comments
15	8/15/2007		DBP	CAISO Alert/Warning or SDG&E System needs	0.98	4:00			
16	8/15/2007		CPP	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	15.90	7:00			Preliminary numbers, not all data available as of 9-01-07
17	8/15/2007		Summer Saver	CAISO Stage 1 or Stage 2 Alert, Local Transmission or Distribution Emergency	26.82	4:00			
18	8/15/2007		CleanGen	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	21.30	4:00			
19	8/15/2007		Smart Thermostat	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	1.10	2:00			
20	8/15/2007		Peak Day Credit	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	3.97	7:00			
21	8/16/2007		CBP - Day Ahead	Statewide or local extreme system conditions or Market price >= 15.00 btu/kWh heat rate	9.10	4:00			

Table I-4  
San Diego Gas and Electric  
Interruptible, Curtailment and Demand Response Programs  
2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Tolled Hours (Annual)	Program Tolled Events (Annual)	Comments
22	8/16/2007		DBP	CAISO Alert/Warning or SDG&E System needs	0.87	4:00			
23	8/16/2007		CPP	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	15.00	7:00			Preliminary numbers, not all data available as of 9-01-07
24	8/16/2007		Smart Thermostat	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	1.00	3:00			
25	8/16/2007		Peak Day Credit	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	3.68	7:00			
26	8/17/2007		DBP	CAISO Alert/Warning or SDG&E System needs	1.63	4:00			
27	8/17/2007		CPP	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	14.35	7:00			Preliminary numbers, not all data available as of 9-01-07

Table 1-4  
San Diego Gas and Electric  
Interruptible, Curtailment and Demand Response Programs  
2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Tolloed Hours (Annual)	Program Tolloed Events (Annual)	Comments
28	8/17/2007		Smart Thermostat	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	1.10	2:00			
29	8/17/2007		Peak Day Credit	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	4.27	7:00			
30	8/20/2007		CBP - Day Of	Statewide or local extreme system conditions or Market price >= 15.00 btu/kWh heat rate	6.10	4:00			
31	8/20/2007		Smart Thermostat	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	1.00	3:00			
32	8/20/2007		Summer Saver	CAISO Stage 1 or Stage 2 Alert, Local Transmission or Distribution Emergency	26.65	4:00			
33	8/21/2007		CBP - Day Of	Statewide or local extreme system conditions or Market price >= 15.00 btu/kWh heat rate	6.10	4:00			
34	8/21/2007		CBP - Day Ahead	Statewide or local extreme system conditions or Market price >= 15.00 btu/kWh heat rate	9.10	5:00			
35	8/21/2007		DBP	CAISO Alert/Warning or SDG&E System needs	1.16	4:00			

Table I-4  
San Diego Gas and Electric  
Interruptible, Curtailment and Demand Response Programs  
2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Tolled Hours (Annual)	Program Tolled Events (Annual)	Comments
36	8/21/2007		CPP	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	15.05	7:00			Preliminary numbers, not all data available as of 9-01-07
37	8/21/2007		Summer Saver	CAISO Stage 1 or Stage 2 Alert, Local Transmission or Distribution Emergency	26.65	4:00			
38	8/21/2007		Smart Thermostat	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	1.00	3:00			
39	8/21/2007		Peak Day Credit	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	3.97	7:00			
40	8/27/2007		CleanGen	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	25.00	2:00			
41	8/27/2007		Summer Saver	CAISO Stage 1 or Stage 2 Alert, Local Transmission or Distribution Emergency	26.20	3:00			
42	8/28/2007		CBP - Day Of	Statewide or local extreme system conditions or Market price >= 15.00 \$/MWh heat rate	6.10	4:00			

Table I-4  
San Diego Gas and Electric  
Interruptible, Curtailment and Demand Response Programs  
2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Tolerated Hours (Annual)	Program Tolerated Events (Annual)	Comments
43	8/28/2007		CleanGen	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	23.30	3:00			
44	8/29/2007		CBP - Day Ahead	Statewide or local extreme system conditions or Market price >= 15.00 btu/kWh heat rate	9.10	4:00			
45	8/29/2007		CBP - Day Of	Statewide or local extreme system conditions or Market price >= 15.00 btu/kWh heat rate	6.10	4:00			
46	8/29/2007		DBP	CAISO Alert/Warning or SDG&E System needs	1.77	4:00			
47	8/29/2007		CPP	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	16.60	7:00			Preliminary numbers, not all data available as of 9-01-07
48	8/29/2007		Summer Saver	CAISO Stage 1 or Stage 2 Alert, Local Transmission or Distribution Emergency	26.20	4:00			
49	8/29/2007		Smart Thermostat	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	1.00	3:00			
50	8/29/2007		CleanGen	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	23.50	4:00			



Table 1-4  
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Interruptible, Curtailment and Demand Response Programs  
2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Told Hours (Annual)	Program Told Events (Annual)	Comments
51	8/29/2007		Peak Day Credit	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	4.86	7:00			
52	8/30/2007		CBP - Day Of	Statewide or local extreme system conditions or Market price >= 15.00 \$/MWh heat rate	5.60	2:00			
53	8/30/2007		DBP	CAISO Alert/Warning or SDG&E System needs	1.46	4:00			
54	8/30/2007		CPP	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	16.60	7:00			Preliminary numbers, not all data available as of 9-01-07
55	8/30/2007		Summer Saver	CAISO Stage 1 or Stage 2 Alert, Local Transmission or Distribution Emergency	26.20	4:00			
56	8/30/2007		Smart Thermostat	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	1.00	5:00			

Table 1-4  
San Diego Gas and Electric  
Interruptible, Curtailment and Demand Response Programs  
2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Tolerated Hours (Annual)	Program Tolerated Events (Annual)	Comments
57	8/30/2007		Peak Day Credit	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	7.08	7:00			
58	8/31/2007		CBP - Day Ahead	Statewide or local extreme system conditions or Market price >= 15.00 btu/kWh heat rate	9.10	6:00			
59	8/31/2007		CBP - Day Of	Statewide or local extreme system conditions or Market price >= 15.00 btu/kWh heat rate	5.20	2:00			
60	8/31/2007		DBP	CAISO Alert/Warning or SDG&E System needs	2.06	4:00			
61	8/31/2007		CPP	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	17.40	7:00			Preliminary numbers, not all data available as of 9-01-07
62	8/31/2007		Summer Saver	CAISO Stage 1 or Stage 2 Alert, Local Transmission or Distribution Emergency	25.60	2:00			
63	8/31/2007		CleanGen	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	23.90	2:30			

Table 1-4  
San Diego Gas and Electric  
Interruptible, Curtailment and Demand Response Programs  
2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Tolerated Hours (Annual)	Program Tolerated Events (Annual)	Comments
64	8/31/2007		Peak Day Credit	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	7.59	7:00			
65	9/3/2007		CPP-E	Utility System Emergencies, or Extreme Statewide Emergency Conditions or Imminent Stage 3 Emergency Alert	2.90	3:00			
66	9/4/2007		CBP - Day Of	Statewide or local extreme system conditions or Market price >= 15.00 btu/kWh heat rate	6.10	4:00			
67	9/4/2007		BIP	CAISO Initiates an Interruptible period or a Stage 2 Alert	1.80	4:00			
68	9/4/2007		CPP-E	Utility System Emergencies, or Extreme Statewide Emergency Conditions or Imminent Stage 3 Emergency Alert	3.10	6:00			
69	9/4/2007		Smart Thermostat	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	1.10	5:00			
70	9/4/2007		DBP	CAISO Alert/Warning or SDG&E System needs	1.29	5:00			

Table I-4  
San Diego Gas and Electric  
Interruptible, Curtailment and Demand Response Programs  
2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Tolled Hours (Annual)	Program Tolled Events (Annual)	Comments
71	9/4/2007		CPP	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	15.70	7:00			
72	9/4/2007		Summer Saver	CAISO Stage 1 or Stage 2 Alert, Local Transmission or Distribution Emergency	28.40	5:00			
73	9/4/2007		Peak Day Credit	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	10.20	7:00			
74	9/5/2007		CPP	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	15.70	7:00			

Table 1-4  
San Diego Gas and Electric  
Interruptible, Curtailment and Demand Response Programs  
2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Tolloed Hours (Annual)	Program Tolloed Events (Annual)	Comments
75	9/5/2007		Peak Day Credit	Day-Ahead Forecast 84 Degrees at MCAS and actual SDG&E system load reaches or exceeds 3620 MWs or CAISO Alerts or As warranted by extreme system conditions	4.69	7:00			
76	10/24/2007		CBP - Day Of	Statewide or local extreme system conditions or Market price >= 15.00 btu/kWh heat rate	6.40	3:00			
77	10/24/2007		BIP	CAISO Initiates an Interruptible period or a Stage 2 Alert	0.10	3:00			
78	10/24/2007		CPP-E	Utility System Emergencies, or Extreme Statewide Emergency Conditions or Imminent Stage 3 Emergency Alert	3.31	5:00			
79	10/24/2007		Smart Thermostat	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	1.00	5:00			
80	10/24/2007		DBP	CAISO Alert/Warning or SDG&E System needs	1.40	8:00			
81	10/24/2007		CleanGen	CAISO Stage 2 Alert, Local Transmission or Distribution Emergency	16.00	4:30			
82	10/24/2007		Summer Saver	CAISO Stage 1 or Stage 2 Alert, Local Transmission or Distribution Emergency	28.58	3:00			

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 San Diego Gas and Electric  
 Interruptible, Curtailment and Demand Response Programs  
 2007 Event Summary (Operations)

Event No.	Date	Interruptible & Curtailment Programs ISO Request (MW)	Program Activated	Program Trigger	Actual Load Reduction (MW)	Event Duration (hr:min)	Program Tolloed Hours (Annual)	Program Tolloed Events (Annual)	Comments
83	10/24/2007		PeakGen	CAISO Alert - Eminent Stage3 emergency; CAISO declares a firm load curtailment within theSDG&E service territory	6.73	5:00			Preliminary numbers, not all data available as of 11-01-07
n/a	November-07	None	--		--	--	--	--	
n/a	December-07	None	--		--	--	--	--	

