

Application No.: A.02-05-

Exhibit No.: SDG&E-2

Date: _____

Witness: Susie E. Sides

**2002 ANNUAL EARNINGS ASSESSMENT PROCEEDING
TESTIMONY
OF
SAN DIEGO GAS & ELECTRIC COMPANY**

May 2002

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

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1 **TESTIMONY OF SAN DIEGO GAS & ELECTRIC COMPANY REGARDING**
2 **2001 DEMAND RESPONSE PROGRAMS**

3
4 **2002 ANNUAL EARNINGS ASSESSMENT PROCEEDING**

5 **APPLICATION 02-05-_____**

6 **I.**

7
8 **SAN DIEGO GAS & ELECTRIC COMPANY**
9 **DEMAND RESPONSE**
10 **PROGRAMS**

11
12 **A. INTRODUCTION**

13 The purpose of this testimony is to describe and support SDG&E's demand response
14 programs and their associated costs

15 I sponsor Exhibit A: SDG&E Demand Response Programs: Costs by Activity. The
16 California Public Utilities Commission (Commission or CPUC) Decision (D.) 01-07-029, dated
17 July 12, 2000, ordered utilities to report on interruptible programs and curtailment priorities as
18 part of their Demand-Side Management (DSM) programs report. D.01-07-029 also states that
19 utility memorandum account balances will be reviewed in the Annual Earnings Assessment
20 Proceeding (AEAP). Upon a finding of reasonableness, D.01-07-029 provides that “. . .
21 balances in each memorandum account shall be recovered from ratepayers without respect to any
22 policies otherwise in place regarding the end of the rate freeze.”¹

23 In 2001, the Commission issued three decisions that directed SDG&E to implement
24 numerous demand response programs. D.01-04-006 ordered SDG&E to implement a Base

¹ D. 01-07-027, at p. 10.

1 Interruptible Program (BIP), a Voluntary Demand Response Program (VDRP), an Optional
2 Binding Mandatory Curtailment Program (OMBC) and an Air Conditioner Cycling (A/C
3 Cycling) program. The VDRP was subsequently suspended by the CPUC and replaced by the
4 Demand Bidding Program (DBP) in D. 01-07-025. D. 01-06-009 authorized SDG&E to
5 implement a Rolling Blackout Reduction Program (RBRP). Senate Bill 5 (also referred to as
6 SBX1 5) required utilities to implement the Scheduled Load Reduction Program (SLRP).

7 By Commission order, SDG&E tracks its costs for all Demand Response Programs
8 through an approved memorandum account. ² D. 01-04-006 established an authorized annual
9 level of SDG&E spending for January 1, 2001, through December 31, 2001 in the amount of \$25
10 million (including base rate and incremental cost amounts) and curtailment priority limits of
11 250 MW.³ SDG&E established its CPUC approved Interruptible Load and Rotating Outage
12 Programs Memorandum Account (ILROPMA). The ILROPMA reflects the capital and
13 operation & maintenance (O&M) costs, customer incentives and penalties; funding received
14 from other sources (e.g., California Energy Commission, Independent System Operator and
15 California Department of Water Resources); and interest earned on the memorandum account
16 balance. The balance in the ILROPMA is to be transferred to the Rewards and Penalties
17 Balancing Account or other balancing account for future recovery with recovery of the
18 undepreciated portion of the capital costs to be determined in the utility's next cost of service
19 proceeding.

20 /
21 /
22 /
23 /

² D. 01-04-006, Ordering Paragraph 16.

³ D. 01-04-006, Ordering Paragraph 17.

B. SDG&E DEMAND RESPONSE PROGRAM DESCRIPTIONS, ACCOMPLISHMENTS AND EXPENDITURES

In 2001, SDG&E incurred a total of \$467,138 related to these Demand Response Programs for which it here seeks recovery. SUMMARY TABLE 1, set forth below, reflects a breakdown of program participation levels and total incremental costs for the Demand Response Programs:

PROGRAM	Number of Meter Sites	MW	EXPENDITURES
Residential A/C Cycling	0	0	\$80,292
Nonresidential RBRP	65	66.9	\$228,319 ¹
Nonresidential OBMC	1	0.8	\$17,260
Nonresidential VDRP	1	1.0 ¹	\$7,198
Nonresidential DBP	3	2.3	\$120,136
Nonresidential BIP	0	0.0	\$3,112
Nonresidential SLRP	1	0.2	\$8,346
PROGRAM TOTAL	71	71.2	\$464,663
MEMORANDUM ACCOUNT INTEREST			\$2,475
TOTAL AMOUNT TO BE RECOVERED			\$467,138

The incremental costs incurred for 2001 are associated with the design, development and implementation of the new demand responsiveness programs. Following is a description of the types of activities that were undertaken in 2001 for each one of these programs:

- **Tariff and Customer Contract Development:** SDG&E developed Tariffs to meet the CPUC’s vision and mission for customer demand response. For statewide programs, SDG&E worked with PG&E, SCE and the Energy Division to develop tariffs that were consistent among the utilities. SDG&E established customer contracts to ensure

1 participating customers clearly understood program requirements and their commitment
2 and responsibilities for demand response.

- 3 • Program Design and Development: SDG&E developed a customer recruitment
4 methodology that included identifying the target markets for each individual program
5 based on program parameters, determining the best method to maximize penetration of
6 each target market, and developing appropriate program collateral. Material for customer
7 seminars was also developed. Seminar material included a Demand Response
8 presentation, customer informational packets and a short training session on how to use
9 the website tool to access customer data. The customer informational packet included a
10 matrix comparing the various demand response programs, program fact sheets, a training
11 manual for the website tool, the Independent System Operator (ISO) description for
12 calculating the 10-day baseline, a seminar survey and a list of energy savings tips.
- 13 • Marketing and Outreach Activities: Due to the complexity of the programs and the
14 importance of achieving customers' understanding of all options before signing up for a
15 particular program, SDG&E determined that personal interaction, both in groups and
16 individually, was the most viable method of gaining rapid enrollment in the programs.
17 SDG&E mailed demand response program information to approximately 3,000
18 qualifying customers and invited them to attend the demand response seminars.
19 Approximately 361 customers attended the six (6) customer seminars. In addition to
20 conducting customer seminars, SDG&E personnel met individually with customers to
21 explain the various demand response programs and to assist customers in identifying the
22 programs to best meet their operational needs. Over 360 customers were contacted.

- 1 • Metering and Telecommunications Installations: Effective July 1, 2001, the California
2 Energy Commission (CEC), through ABX1 29, funded the cost for installing interval-
3 data recorder (IDR) meters and telephone lines to participating demand response
4 customers. SDG&E charged the metering and telecommunications equipment installed
5 prior to July 1, 2001 to the appropriate demand response program.
- 6 • Systems and Customer Communications Development and Tests: SDG&E partnered
7 with ABB Energy Interactive (ABB) to develop a website tool for customers to access
8 their electric usage. The ABB system allows customers to view their interval (15-minute)
9 energy usage on a daily basis as well as their 10-day baseline. The ABB system also
10 permits SDG&E to notify customers of a curtailment event and customers to respond
11 with their estimated load reduction. Specific tasks for systems and customer
12 communications development included identifying system requirements, designing the
13 system, creating an (MV-90) interface and testing support to ABB.
- 14 • Tracking and Reporting: SDG&E developed a Demand Response Tracking database to
15 monitor a customer's status in the program by meter site. This database verifies customer
16 eligibility, lists curtailment events by program, records customer pledged reduction
17 levels, reports actual load reduction levels and registers incentive and penalty amounts
18 billed.
- 19 • Ongoing Program Management: In 2001, SDG&E's program management efforts
20 included maintaining and verifying customer contracts, weekly and monthly demand
21 response reporting to the CPUC, following-up with equipment installations, updating
22 customer communication material, participating in demand response meetings, seminars
23 and workshops and continuous tracking of program operations and costs.

1 Following is a brief summary of the programs, unique activities and accomplishments that
2 SDG&E undertook in 2001.

3 **C. DEMAND RESPONSE PROGRAM COST ALLOCATIONS**

4 Exhibit A provides a cost breakdown, by activity, for each demand response program.

5 **1. Residential A/C Cycling Program**

6 The A/C Cycling Program was intended to achieve electric demand reduction through the
7 cycling of customer air conditioning systems, consistent with D.01-04-006. Specifically,
8 D.01-04-006 directed SDG&E to explore reasonable options for implementing A/C cycling and
9 other electric motor interruption programs targeted to residential and small commercial
10 customers with an advice letter to be filed and served no later than May 1, 2001.⁴ SDG&E
11 evaluated various residential and small commercial customer electric appliances and equipment
12 cycling or curtailment strategies in 2001 and submitted Advice Letter 1320-E. In this regard,
13 SDG&E conducted customer focus groups and enlisted an outside entity to provide an analysis
14 of program design. Subsequent to filing Advice Letter 1320-E, SDG&E proposed in Phase 2 of
15 Rulemaking 00-10-002 to cancel the A/C Cycling program because it duplicated the Smart
16 Thermostat program being implemented by SDG&E in accordance with D.01-03-073.⁵ The
17 Commission in D. 02-04-060 approved the cancellation of SDG&E's A/C Cycling program and
18 stated "We are persuaded that a better use of limited resources is to allow SDG&E to first
19 implement the Smart Thermostat Pilot Program, and rely on results of the pilot program before
20 pursuing a competing program."⁶

⁴ D.01-04-006, Attachment A Section 2.3.4.

⁵ Joint Comments and Proposals of Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric Company (SDG&E) on Phase 2 Issues Raised in the September 21, 2001 Scoping Memo And Ruling, filed October 12, 2001.

⁶ D. 02-04-060, at p. 51.

1 **2. Nonresidential Programs**

2 **a. Rolling Blackout Reduction Program (RBRP)**

3 The RBRP permits SDG&E to call on customer-owned emergency backup generators
4 (BUGs) during a California Independent Systems Operator (CAISO)-declared Stage 3 event to
5 start their generators and transfer load off the system, thereby reducing demand that must
6 otherwise be met by system resources. Customers receive an incentive payment of \$0.20 per
7 kWh of actual energy reduction below the 10-day baseline, dependent on at least a 15% load
8 reduction and a minimum of 100kW.

9 Activities unique to the RBRP included conducting site surveys and installing special
10 metering (generation output meters) and telecommunications. Site surveys were required to
11 obtain back-up generator information, such as: size, fuel-type and connected load to the
12 generator. Generation output meters allow SDG&E to monitor on a near real-time basis how
13 much power the back-up generator is supplying. This monitoring provides a verifiable method
14 of demonstrating to the CAISO that back-up generators are operating during a Stage 3
15 emergency. For the RBRP program, SDG&E initiated an Interactive Voice Response (IVR)
16 system. The IVR system allows customers to immediately respond to SDG&E with their
17 estimated load reduction levels, which improves curtailment planning and minimizes the impact
18 of rolling blackouts for SDG&E customers.

19 At year-end, SDG&E had enrolled 34 customers, representing 65 meters and an estimated
20 load reduction of 66.9 MW in the program. The load reduction for a particular event under this
21 voluntary program will depend in part on the cost of running the customer's generator, including
22 the price of fuel, and the generator operation schedule.

1
2 **b. Optional Binding Mandatory Curtailment Program (OBMC)**

3
4 The OBMC program exempts enrolled customers' circuits from rotating outages in return
5 for a commitment from such customers to reduce circuit load by 15% from the previous year
6 baseline, and by at least 10% from the 10-day baseline. If a customer fails to achieve committed
7 load curtailment, it incurs a penalty of \$6 per kWh.

8 SDG&E developed and used a systems application specifically for the OBMC. This
9 customized application collects and transfers Supervisory Control And Data Acquisition
10 (SCADA) data to the ABB system, allowing participating customers to view circuit level data.

11 SDG&E enrolled two major customers in summer 2001 with a potential load reduction of
12 3.4 MW. Although interest was initially high for OBMC because of the appeal of rolling
13 blackout exemption, most San Diego area businesses do not meet OBMC eligibility
14 requirements. Feedback from customers considering the program also indicated that the
15 potential for significant monetary penalties for failure to meet committed curtailment pledges
16 (\$6.00 per kWh during each hour of the rotating outage) served as a disincentive. At the end of
17 2001, one active customer was enrolled on the program, equivalent to a potential load reduction
18 of 0.8 MW.

19 **c. Voluntary Demand Response Program (VDRP)**

20
21 The VDRP provided participating customers with an incentive payment of \$0.35 per
22 kWh for demand reductions made in response to the utility's demand reduction request on a day-
23 ahead or day-of basis. The Demand Bidding Program (DBP) replaced the VDRP on July 20,
24 2001.

1 SDG&E enrolled one customer in the VDRP prior to implementation of the DBP, which
2 was the equivalent of a potential load reduction of 1 MW in 2001. Prior to termination of the
3 VDRP, SDG&E conducted a test of the VDRP infrastructure. The test included customer
4 notification, actual load reduction by the customer, incentive calculation and bill preparation.

5 **d. Demand Bidding Program**

6
7 The DBP is a voluntary program in which participating customers submit day-ahead bids
8 to curtail load within demand bidding event time blocks and select their bid price, ranging
9 between \$0.10 and \$0.75/kWhr. The utility forwards customer bids to the Department of Water
10 Resources (DWR) and the DWR either accepts or rejects the bids. The DBP replaced the VDRP
11 in July 2001.

12 SDG&E also worked with a third-party vendor, Apogee, to develop, design, test and
13 implement bidding software specifically for the Demand Bidding Program. Extensive
14 modifications were required to transition from the VDRP to the DBP. Modifications included:
15 interfacing the Apogee product with the ABB product to share customer data, adding a “bidding”
16 mechanism that allows customers to select their bid price level and time block, screens to view
17 customer bidding history and settlement information and messaging functionality to notify
18 customers of bid status.

19 Four (4) customers representing 2.65 MW were enrolled in the summer of 2001. In
20 December, the DWR notified SDG&E that DWR intended to suspend its consideration of DBP
21 bids as of December 15, 2001, to be reactivated in June 2002, or in the event of ISO Stage 2 or
22 Stage 3 emergencies. SDG&E ended the year with three enrolled customers with five total
23 meters, representing 2.3 MW of potential curtailment.

1 D.01-07-025 directed SDG&E to implement the DBP with program funding provided by
2 DWR. D.01-07-025 also ordered SDG&E to track program costs and revenues for the DBP in
3 the memorandum account, in the same manner that the other programs were ordered to be
4 tracked in D.01-04-006. SDG&E Advice Letter 1344-E-A established the DBP account in the
5 ILROPMA.⁷

6 In the DWR Revenue Requirement proceeding, A.00-11-038, the Commission did not
7 authorize the DWR to include the DBP in the DWR's revenue requirement. Therefore, in this
8 AEAP proceeding, SDG&E requests cost recovery for unrecovered incremental DBP costs
9 tracked in the ILROPMA.

10 e. **Base Interruptible Program (BIP)**

11
12 The BIP provides a monthly incentive payment of \$7 per kW to customers who commit
13 to curtail at least 15% of their load, with a minimum load reduction of 100kW, when requested,
14 for up to a 4-hour period per day. A \$6 per kWh penalty applies for failure to meet their
15 curtailment commitment. No customers enrolled in the BIP program in 2001.

16 f. **Scheduled Load Reduction Program (SLRP)**

17
18 Under the SLRP, customers commit to schedule load reductions in four-hour blocks on
19 selected weekdays, between June 1 and September 30, in return for an incentive payment of
20 \$0.10 per kWh. Advice Letter 1324-E-B, approved by the Commission on June 26, 2001,

⁷ Letter of Approval from Kevin P. Coughlan dated July 20, 2001 – Advice Letter 1344-E-A effective July 20, 2001.

1 authorizes SDG&E to track the SLRP costs in the ILROPMA.⁸ One customer, with an estimated
2 load reduction level of 200 kW, enrolled in the SLRP program in 2001.

3 **II.**

4 **CONCLUSION**

5 In conclusion, SDG&E respectfully requests the Commission to find reasonable and to
6 authorize SDG&E's recovery of 2001 demand response program expenditures, with an effective
7 date of January 1, 2003, and to issue a decision:

- 8 1) Finding that the 2001 expenditures of \$467,138 are reasonable; and
9 2) Authorizing the recovery of the 2001 expenditures of \$467,138 and the transfer of
10 this amount to the electric RPBA.

11

⁸ Letter of Approval from Kevin P. Coughlan dated June 26, 2001 – Advice Letter 1324-E-B effective May 30, 2001.

QUALIFICATIONS OF SUSIE E. SIDES

My name is Susie E. Sides. My business address is 8306 Century Park Court, Suite 42K, San Diego, California, 92123-1569. I am employed by San Diego Gas & Electric Company (“SDG&E”) as the Demand Response Programs Manager in the Commercial and Industrial Markets Department. In my current position, I am responsible for the development and implementation of demand response programs.

I graduated from San Diego State University with a Bachelor of Science degree in Business Management in 1993. I received a Master of Arts degree in Organizational Management from the University of Phoenix in 1997. Initially, I was hired by SDG&E in February 1986 and held several positions of increasing responsibility until February 2000. Between March 2000 and February 2001, I was employed by the San Diego Regional Energy Office as Assistant Director of Energy Programs. I returned to SDG&E in February 2001. Since then, I have managed the Demand Response Programs. I have not previously testified before this Commission.

