

Application of San Diego Gas & Electric
Company (U-902-M) for Approval of
Demand Response Programs and Budgets
for Years 2006 through 2008.

Application 05-06-_____

CHAPTER 1
PREPARED DIRECT TESTIMONY
OF
PATRICIA WAGNER

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

JUNE 1, 2005

Application of San Diego Gas & Electric
Company (U-902-M) for Approval of
Demand Response Programs and Budgets
for Years 2006 through 2008.

Application 05-06-_____

CHAPTER 1
PREPARED DIRECT TESTIMONY
OF
PATRICIA WAGNER

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

JUNE 1, 2005

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

CHAPTER 1

**PREPARED DIRECT TESTIMONY
OF
PATRICIA WAGNER**

SDG&E Policy Concerning Demand Response Program Selection and Planning

A. Introduction

SDG&E's proposed 2006-2008 Demand Response Program portfolio includes aggressive and innovative voluntary programs that are consistent with California's Energy Action Plan ("EAP"), and that have been designed to help to meet the California Public Utilities Commission's ("CPUC" or "Commission") aggressive load reduction goals. Voluntary programs are but one element of an integrated portfolio designed to collectively work toward meeting these aggressive goals. Additional elements, such as the deployment of an Advanced Metering Infrastructure ("AMI"), and the future adoption of dynamic rate structures, in conjunction with a portfolio of voluntary programs will be essential tools in working toward meeting the goals. SDG&E's proposed portfolio of demand response programs for 2006-2008 is the product of a coordinated and collaborative effort among SDG&E, its customers, and statewide working groups.

SDG&E also believes that there must be a statewide "call to action" aimed at customers, to help raise the awareness of the vital role that demand response and energy efficiency programs play in the overall resource plan, and to help draw attention to many of the issues that drive the need for energy conservation and load reduction. To some extent, SDG&E believes that there is a lack of perceived need for load reduction among

1 customers that will require compelling program offerings and related customer education
2 and awareness efforts to overcome.

3 SDG&E provides electric service to approximately 1.3 million customers
4 (residential and commercial/industrial) in San Diego and southern Orange counties.
5 SDG&E's electric customer base is made up of approximately 89% residential and 11%
6 commercial/industrial customers. This relatively low percentage of
7 commercial/industrial customers is unique among California's Investor Owned Utilities
8 ("IOUs"), and has significant implications for resource planning. Load shape,
9 cogeneration and self-generation potentials, and the amount of energy efficiency and
10 demand response available to reduce resource needs are all factors that arise from
11 SDG&E's unique customer mix. SDG&E is fully committed to providing safe and
12 reliable service to its customers, through the use of a diversified resource mix, all within
13 an integrated portfolio that balances low cost against supply and cost volatility.

14
15 **B. SDG&E Strongly Supports the Energy Action Plan**

16 The joint efforts of the CPUC and the California Energy Commission ("CEC"),
17 and the California Consumer Power and Conservative Financing Authority ("CPA"),
18 along with input and participation from a wide group of stakeholders have led to the
19 development of the EAP. The EAP prioritizes energy efficiency and demand response as
20 the first resources to be evaluated and utilized in the utilities' resource planning process.
21 These demand-side management ("DSM") resources are important tools to address
22 California's growing energy needs. The EAP establishes statewide policies, strategies and
23 actions that are cost-effective, environmentally sound, goal oriented and reflect the intent
24 of the state that parties work together to find solutions to California's energy challenges.
25

1
2 In order to focus on planning for the future, and in working to provide adequate
3 energy supplies at reasonable prices, SDG&E has developed a long-term resource plan to
4 help ensure that adequate electric infrastructure exists to meet future needs. Consistent
5 with the loading order of the EAP, SDG&E's long-term resource plan prioritizes energy
6 efficiency and demand response programs as the first order of energy resources

7 Load reduction, which can be accomplished through the implementation of carefully
8 thought out and flexible demand response programs, integrated with a portfolio of energy
9 efficiency programs and initiatives, is the first element of this strategy. Particularly in the
10 near term, as longer-term solutions of new infrastructure are pursued, SDG&E expects to
11 employ a comprehensive portfolio of demand response programs, with elements that can
12 fit a diverse group of customers and play a vital role during periods when energy supplies
13 are scarce.

14
15 **C. Integration of Demand Response Programs With Energy Efficiency and**
16 **Distributed Generation (which includes Renewable Programs)**

17
18 Consistent with the EAP and its own long-term resource plan, SDG&E believes
19 that an integrated portfolio approach is the most effective means for pursuing long-term
20 strategies. By developing strategies focused on the specific elements of the EAP and
21 long-term resource plan, attainment of the complete range of long-term objectives can be
22 met in a cohesive and comprehensive manner. SDG&E's proposed portfolio of
23 integrated demand side management programs satisfies that objective by presenting to its
24 customers an array of available programs to help reduce demand and provide a direct

1 benefit to all customers and the electric grid, particularly during times of tight energy
2 supplies or system emergencies.

3 One of the key initiatives that SDG&E is pursuing is the integration of energy
4 efficiency, demand response and renewable technologies into what it considers the
5 “holistic” approach to responding to customer needs through a single concept called
6 Integrated Demand Side Management (“IDSM”). By utilizing the synergies among these
7 interrelated options, SDG&E believes that customers will be encouraged to address all
8 the opportunities to improve energy usage. Ideally, customers will be more willing to
9 continuously participate in these programs as they adopt these measures as part of their
10 overall energy management strategy, thereby resulting in significantly higher levels of
11 energy savings and load reduction (giving the customer more control over how much
12 they pay for energy).

13 The concepts of energy efficiency and demand response are clearly related. Energy
14 efficiency involves the permanent reduction of energy usage in a manner that does not
15 affect a customer’s level of service or productivity. It is usually accomplished by
16 replacing older equipment with newer, more efficient devices that fulfill the same
17 function. Demand response, on the other hand, involves a reduction of load for a
18 specified and limited period of time in response to a particular incentive (generally
19 monetary). This requires the customer to have an identified demand reduction strategy,
20 potentially some form of enabling technology, and the willingness to reduce their load
21 below what they might consider optimal levels of service for a limited period of time.
22 The use of renewable technologies provides an added resource option that lessens the
23 dependence on the more traditional energy supply sources.

1 As part of its overall strategy to offer the “holistic” approach of IDSM, SDG&E
2 intends to coordinate its energy efficiency programs with its demand response programs
3 by ensuring that customer contact personnel discuss all options with customers, thereby
4 providing the customer with a broader array of choices. Bringing energy efficiency and
5 demand response programs together results in marketing synergies. Throughout 2005,
6 and as the various programs go forward in the future, SDG&E will continue to review the
7 full spectrum of program integration opportunities. This includes ongoing development
8 of an integrated message that customers can easily understand, presenting that integrated
9 message through advertising, website and program collateral. There are clear
10 opportunities to add a demand response component to energy efficiency customer
11 workshops and seminars. SDG&E offers several types of energy audit services,
12 including an online energy audit as well as a customer premise onsite energy audit. Each
13 of these services is being expanded and revised to include a more comprehensive demand
14 response component that is appropriate for the target audience.

15 By offering an integrated demand response and energy efficiency portfolio, while also
16 considering such other initiatives as distributed generation and renewable energy,
17 SDG&E can help its customers identify opportunities to maximize the synergies that are
18 created by and among these various products and services. Ideally, the end result is the
19 greatest level of reduced load that maximizes the investment by both SDG&E and the
20 customer in the various programs. This synergistic approach also benefits customers by
21 helping them maximize the efficiency of their operations and energy use and, at the same
22 time, reduce their overall energy costs.

23

1 **D. SDG&E's Proposal Applies a Comprehensive Demand Response Program**
2 **Portfolio Approach**
3

4 In recognition of SDG&E's customer base, and its wide variety of technological,
5 financial and other operating conditions, SDG&E is proposing a portfolio of demand
6 response programs. This portfolio approach makes it easier for individual customers to
7 match their unique usage characteristics with a program design that meets their needs in
8 an effort to maximize participation and take steps toward achieving the overall goal of
9 reducing demand. SDG&E's comprehensive portfolio is designed to present a range of
10 innovative offerings to its customers that result in future load reduction and cost savings
11 streams. (SDG&E also believes that offering a variety of programs in an integrated
12 fashion makes customer participation easier).

13 Additionally, given the high percentage of residential customers in SDG&E's
14 customer base, currently a large portion of the load reduction needed to work toward
15 meeting the Commission's aggressive goals must come from a much smaller percentage
16 of customers within the commercial and industrial sector. SDG&E's customer base
17 simply lacks the significant number of heavy industrial users, from whom a sizeable load
18 reduction is possible. The proportion of load attributable to military facilities and
19 installations, which has a difficult time committing to participation in demand response
20 programs, further limits SDG&E's ability to secure sufficient load reductions in working
21 to achieve the Commission's aggressive goals.

22 Further, because of the current Assembly Bill ("AB")1X restrictions on rate
23 changes to a large portion of SDG&E's residential load (70% of SDG&E's residential
24 load falls within the 130% of baseline restriction imposed by AB1X) the residential

1 customer base from which load reductions can be achieved is lessened. All of these
2 factors combine to make the development of a comprehensive portfolio approach all that
3 much more important, in order to achieve an array of programs to apply to and attract the
4 greatest array of customers.

5 **1. SDG&E's Approach to Portfolio Design**

6 In order to enhance the probability of implementing successful programs,
7 SDG&E has adopted an overarching set of objectives that guided the development of its
8 proposed 2006-2008 program portfolio. These objectives are:

- 9 • Achieve the demand reduction targets established by the Commission and
10 reflected in SDG&E's resource plan;
- 11 • Create innovative program offerings that make it easy for customers to
12 participate and subsequently result in an increased level of demand
13 response when needed;
- 14 • Provide programs that integrate energy efficiency, demand response and
15 renewable technologies;
- 16 • Involve communities, customers and valued service providers in the
17 development and implementation of programs; and,
- 18 • Make it easy for customers to understand and participate in programs.

19 **2. Counting Reliability Program Targets As Part of the Demand** 20 **Response Program Targets** 21

22 In D.05-01-056, the Commission categorized demand response programs into
23 two different groups: "Day-Ahead" or "Price-Responsive" programs and "Day-Of" or
24 "Reliability-Triggered" programs. Further, D.05-01-056 also notes that both types of

1 programs motivate customers to reduce their electricity consumption in exchange for
2 some type of benefit, such as reduced energy rates, bill credits, or exemptions from
3 rotating outages.

4 As discussed in the testimony of Witness Sides (Chapter II), earlier Commission
5 decisions (in particular D.03-03-062) established annual targets for load reductions to be
6 achieved through demand response programs. Subsequently, in D.04-12-048, the
7 Commission adopted a 2005 **price responsive** demand response programs goal for
8 SDG&E of 125 MW,¹ meaning that SDG&E's various programs should be designed to
9 produce a capacity reduction of 125 MW for 2005. Utilizing the distinction of Day-
10 Ahead programs and Reliability-Triggered (or Day-Of) programs, D.05-01-056
11 concludes that "day-ahead notification program(s) ...will count towards meeting the
12 utilities goals for price responsive demand."² The same treatment, however, is not
13 afforded to those programs that are triggered on shorter notice - - Day-Of (Reliability-
14 Triggered) programs. SDG&E believes, for many of the same reasons discussed in D.05-
15 01-056, that the load reductions achieved through the portfolio of ALL demand response
16 programs should be counted toward meeting the load reduction goals set forth in D.04-
17 12-048, and repeated in D.05-01-056.

18 The nature of any demand response program, whether categorized as a Day-
19 Ahead or Day-Of program, is to provide some form of customer incentive in exchange
20 for a reduction in load. While the potential value of that load reduction may vary at
21 different times, the fact remains that the reduction in load is valuable and should be
22 counted toward the annual targets. D.05-01-056 notes that both types of programs

¹ See D.05-01-056, mimeo at page 3 (emphasis in original). D.05-01-056 refers to D. 04-12-048 in restating the 2005 price responsive goal.

² See D.05-01-056, mimeo at page 5.

1 motivate customers to reduce load. In addition, D.05-01-056 notes that “[i]ncreasingly
2 the line between these two types of programs (Price-Responsive and Reliability-
3 Triggered) has blurred.”³

4 Recognizing this and considering that various programs make up SDG&E’s
5 demand response programs portfolio, SDG&E urges the Commission to eliminate any
6 distinction between programs for purposes of determining contributions toward annual
7 load reduction goals, and to count the load reductions attributable to all demand response
8 programs toward meeting annual targets. SDG&E believes that in the eyes of the
9 customer, any such program distinction probably makes little sense. The reality is that
10 under either type of program, as D.05-01-056 acknowledges, the customer receives some
11 form of incentive in exchange for reducing load. Whether on a day-ahead or day-of
12 basis, the need for load reduction is encouraged and rewarded in some fashion to mitigate
13 some type of extreme condition related to energy supply, price, or other emergency
14 situation. The fact that the condition might be known a day in advance, or just hours or
15 minutes in advance, does not warrant exclusion of the Day-Of programs from counting
16 toward the annual load reduction target.

17 **3. Adjustment of Program Load Reduction Targets for Direct Access**
18 **Load**

19
20 Currently, certain demand response programs restrict customer participation to
21 bundled utility customers only; Direct Access (“DA”) customers cannot participate.
22 Examples of the programs that do not allow DA customer participation include 20/20
23 programs and voluntary Critical Peak Pricing programs. These restrictions are based

³ See D.05-01-056, mimeo at page 4.

1 largely on the fact that these programs are associated with commodity supplies, which is
2 an element of service that SDG&E does not provide to DA customers.

3 Earlier Commission decisions have established annual demand response program
4 targets for the utilities, defining the load reduction targets that the portfolio of demand
5 response programs are expected to achieve.⁴ To the extent that the established demand
6 response programs targets are expressed as a percentage of annual system peak demand,⁵
7 SDG&E believes that it is appropriate to modify the annual targets in order to reflect the
8 load attributable to DA customers who are unable to participate in particular demand
9 response programs. In other words, to the extent that DA customers cannot participate in
10 programs such as 20/20 and voluntary Critical Peak Pricing, the universe of customers
11 from which SDG&E can recruit, and the aggregate customer load that is subject to
12 reduction through program participation, is reduced. Accordingly, SDG&E believes that
13 it is also appropriate that the Commission take into consideration the reduced
14 participation potential when establishing annual load reduction targets.

15 **E. Program Impacts and Opportunities**

16 The variety of ongoing Commission proceedings, as well as the overlapping
17 proceedings being addressed at other California state agencies, has opened a number of
18 alternative considerations for customers.

19 **1. This Application Focuses on Voluntary Programs**

20 The demand response programs that SDG&E is proposing for 2006-2008 are all
21 voluntary and depend upon sound design and effective communication in order to
22 develop a customer's willingness to participate. SDG&E has not proposed to implement

⁴ See D.03-03-062, mimeo, at pages 8-9 (and discussion in Chapter II).

⁵ See D.03-03-062, mimeo, Table 1 at page 9.

1 any default, or mandatory, demand response program in this Application. SDG&E
2 believes that its portfolio of programs offers economic incentives that will attract
3 customer interest in these voluntary programs, but in some cases, may not be sufficient
4 enough to encourage customer participation in these voluntary programs. SDG&E has
5 made various proposals, as detailed in the testimony of SDG&E Witness Sides, to
6 increase certain incentives to levels that may be more attractive to customers. While
7 some of the programs may contain compulsory features and economic/financial
8 provisions, customer participation remains voluntary. In some instances, performance
9 under the programs (i.e., load reduction when called upon) is a necessary condition to
10 receive an incentive payment, and there is no penalty (other than a non-payment of an
11 incentive) for failure to perform.

12 **2. Default Critical Peak Pricing Rates to be Considered in SDG&E's**
13 **Default Critical Peak Pricing Proceeding (A.05-01-017)**

14 In accordance with earlier direction from the Commission,⁶ SDG&E filed
15 Application 05-01-017 on January 20, 2005, proposing to implement a default Critical
16 Peak Pricing (CPP) program and tariff by June 1, 2005. Following considerable
17 stakeholder participation and regulatory hearings, the Commission issued D.05-04-053
18 on April 21, 2005, which declined to adopt a default CPP structure for 2005. Instead,
19 D.05-04-053 directed SDG&E, PG&E and SCE to "file new critical peak pricing
20 proposals including testimony...on August 1, 2005, consistent with the principles
21 adopted today (in D.05-04-053)."⁷

22 The Commission concluded in D.05-04-053 that further consideration of critical
23 peak pricing proposals is warranted, particularly in light of the concerns raised in

⁶ See December 8, 2004 ACR, Ordering Paragraph 4.

⁷ See D.05-04-053, Ordering Paragraph 2.

1 addressing the earlier proposals. As D.05-04-053 noted, the additional consideration of a
2 critical peak pricing program is intended to "...lay out information learned from these
3 applications and a process to capture the lessons learned...."⁸ SDG&E agrees that
4 considering lessons learned with earlier critical peak pricing proposals is vital to
5 developing new effective proposals. Care must be taken to develop a critical peak
6 pricing mechanism that produces the desired results, is easy for customers to understand,
7 considers the design parameters that are most appropriate and effective, and prepares and
8 enables customers to most effectively and efficiently respond to the critical peak pricing
9 signals in order to produce a demand response. SDG&E also notes that a default critical
10 peak pricing structure must also consider the potential impact on the voluntary demand
11 response programs, as customer participation in a default program will necessarily
12 eliminate some portion of customers that would have otherwise participated in voluntary
13 programs. SDG&E is presently working to design a default critical peak pricing proposal
14 to be filed on August 1, 2005, and is soliciting and considering customer input as part of
15 that process.

16 **3. SDG&E's AMI Application (A.05-03-015)**

17 On March 30, 2005, SDG&E filed its AMI Application, addressing SDG&E's
18 proposed future deployment of an AMI structure.⁹ Under SDG&E's full-deployment
19 AMI scenario, all customers throughout SDG&E's service territory would be equipped
20 with advanced metering and a communications infrastructure enabling SDG&E to gather
21 more energy consumption information, implement new dynamic pricing, and 'demand

⁸ See D.05-04-053, mimeo, page 2.

⁹ On March 15, 2005, SDG&E initially filed its AMI Application, and on March 30, 2005, filed an Amended AMI Application (A.05-03-015).

1 response' rates. With this infrastructure and information, customers' ability to participate
2 in and respond to demand response programs would be greatly enhanced.

3 In developing its proposed portfolio of demand response programs, SDG&E has
4 assumed that the AMI deployment strategy and timing as set forth in A. 05-03-015 will
5 proceed, such that a progressively larger group of customers will be AMI-enabled, and
6 will have the necessary metering and communications infrastructure to more effectively
7 participate in demand response programs. Through the deployment of an AMI
8 infrastructure, customers will be provided with time of day and related energy usage
9 information, and will be able to monitor the related impacts on their energy bills.
10 Customers will gain a much more detailed understanding and awareness of energy usage
11 patterns and costs, thereby leading to more intelligent and informed customer energy
12 usage choices - - a key element driving assumptions regarding participation in the
13 demand response programs described in this Application. Any delay in AMI
14 implementation will have a direct impact on customer participation in voluntary demand
15 response programs.

16 **4. AB1X Inhibits Proper Price Signals**

17 Currently, the ability to combine AMI deployment with the implementation of
18 supporting dynamic rate structures which can more fully encourage participation in
19 demand response programs is constrained by the Commission's interpretation of AB1X.
20 The Commission's interpretation is incompatible with the implementation of a dynamic
21 rate structure reflecting real-time energy pricing. AB1X places restrictions on rate
22 design, including absolute rate levels, for residential energy usage up to 130% of their
23 baseline allowances. In SDG&E's case, this impacts approximately 70% of residential
24 load. In D.04-02-057 (issued in R.01-05-047), the "Baseline Phase 2" decision, the

1 Commission adopted an even more restrictive interpretation of AB1X, one that required
2 SDG&E to freeze total residential customer rates for usage up to 130% of baseline
3 allowances. The current interpretation of AB1X compounds the rate impacts resulting
4 from SDG&E's proposed demand response programs budgets, because the costs must be
5 recovered from fewer SDG&E customers.

6 Until such restrictions on rate design and absolute rate levels are removed or
7 modified, the full demand reduction impacts and benefits of AMI deployment, dynamic
8 pricing structures and demand response programs cannot be realized. To the extent
9 AB1X or other Commission decisions or legislative actions prohibit SDG&E from
10 sending accurate demand response price signals for residential usage of up to 130% of
11 baseline allowances, a portion of potentially available load reduction that could be
12 achieved through demand response programs likely will not occur.

13 **5. Rate and Bill Impacts Resulting from the 2006-2008 Demand**
14 **Response Program Budgets**
15

16 In order to work toward achieving the aggressive demand reduction targets
17 established by the Commission, SDG&E intends to implement the proposed portfolio of
18 aggressive demand response programs as outlined in this and other testimony. The
19 proposed budgets associated with these programs represent funding levels that are on
20 average generally consistent with current funding levels most recently approved and
21 authorized for 2005 demand response programs. While SDG&E has attempted to design
22 its 2006-2008 programs such that the Commission-adopted targets in D. 03-06-032 can
23 be achieved at minimum cost to customers, there are, nevertheless, rate impacts resulting

1 from the programs. SDG&E is concerned about the overall rate impacts of these
2 programs and will make every effort to ensure that these impacts are minimized.

3 This concludes my prepared direct testimony.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

QUALIFICATIONS

My name is Patricia Wagner and I am employed by Southern California Gas Company ("SoCal Gas"). My business address is 1919 State College Boulevard, Anaheim, California 92806-6114.

My present position is Director of Customer Programs. My responsibilities include directing the mass market customer programs for both SDG&E and SoCalGas.

I received a Bachelor of Science degree in Chemical Engineering from California Polytechnic University. I also earned a Masters degree in Business Administration from Pepperdine University. I joined SDG&E in 1995 as a Market Advisor in the Marketing Department, and have since held positions of increasing responsibility. I assumed my current position in April 2002.

The purpose of my testimony is to sponsor SDG&E's policy concerning Demand Response Program Selection and Planning.

I have not previously testified before the California Public Utilities Commission.

