

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

Application 05-06-____

CHAPTER I
PREPARED DIRECT TESTIMONY
OF
PATRICIA WAGNER

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

JUNE 1, 2005

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1 **PREPARED DIRECT TESTIMONY OF**

2 **PATRICIA WAGNER**

3 **SAN DIEGO GAS & ELECTRIC COMPANY**

4 **I. PURPOSE**

5 The purpose of my testimony is to present San Diego Gas & Electric Company's
6 ("SDG&E") underlying policies and overview of its 2006-2008 Energy Efficiency
7 ("EE") Program portfolio. SDG&E's proposed 2006-2008 Energy Efficiency portfolio includes
8 aggressive and innovative program ideas that is consistent with the Energy Action Plan ("EAP")
9 and will achieve the California Public Utilities Commission's ("Commission" or "CPUC")
10 aggressive energy savings goals adopted in Decision ("D.") 04-09-060.

11 **II. OVERVIEW**

12 SDG&E provides electric service to approximately 1.3 million customers (residential and
13 commercial/industrial) in San Diego County and the Southern portion of the Orange County area.
14 SDG&E also provides natural gas service to approximately 800,000 gas customers. The electric
15 customer base is made up of 89% residential and 11% commercial and industrial customers,
16 whereas the gas customer base is made up of 96% residential and 4% commercial and industrial
17 customers. The relatively low percentage of commercial and industrial load is unique among
18 California's Investor-Owned Utilities ("IOUs"), and has implications for key elements of
19 SDG&E's resource plan, such as load shape, cogeneration potential, and amount of energy
20 efficiency and demand response available to reduce resource needs. SDG&E is committed to
21 provide safe, reliable service to customers through use of energy efficiency, demand response,

1 renewable and conventional supply technologies in a portfolio that balances lowest cost against
2 cost volatility risk.

3 SDG&E's 2006-2008 Energy Efficiency Program portfolio includes aggressive and
4 innovative program ideas that are consistent with the EAP and will achieve the California Public
5 Utilities Commission ("Commission" or "CPUC") aggressive energy savings and demand
6 reduction goals.

7 The portfolio reflects the continuation of successful utility and non-utility implemented
8 programs and includes partnerships with local and statewide governmental agencies. SDG&E's
9 portfolio also includes a competitive bid component to solicit other innovative EE programs from
10 parties.

11 **III. SDG&E PORTFOLIO'S CONSISTENCY WITH COMMISSION'S POLICY** 12 **FRAMEWORK**

13 **A. Consistency with the Energy Action Plan**

14 The Energy Action Plan, adopted by the Commission, California Energy Commission
15 ("CEC") and the California Consumer Power and Conservation Financing authority ("CPA"),
16 identifies six sets of actions that are of critical importance in managing California's growing
17 energy consumption. The EAP has put energy efficiency at the forefront of energy policy and
18 resource procurement in California. The Commission, in Decisions (D.) 04-09-060 and 05-01-
19 055, translates the EAP's action item on energy efficiency into concrete steps that the utilities
20 must implement in order to achieve the EAP's energy policies. D.04-09-060 provides the
21 utilities with specific energy savings and demand reduction goals for the years 2006 through
22 2013, which will be updated every three years for use in subsequent program cycles. D.05-01-
23 055 returns the utilities to the lead role in Program Choice and Portfolio Management consistent

1 with the Legislature and Commission directing the utilities to resume responsibility for procuring
2 resources to meet customer demand. SDG&E in its role of Program Choice and Portfolio
3 Management is committed to the EAP, and has worked diligently to develop creative solutions to
4 the State's energy issues and recognize energy efficiency as a first order loading resource.
5 SDG&E's proposed 2006-2008 portfolio is the product of a coordinated and collaborative effort
6 between SDG&E, its Program Advisory Group ("PAG") and members of the public to address
7 the aggressive energy savings and demand reduction goals established by the Commission in D.
8 04-09-060. In addition, SDG&E actively participated in regional energy planning groups to
9 implement energy efficiency strategies that will benefit the San Diego region. SDG&E has
10 worked toward aligning the goals of the San Diego Regional Energy Strategy¹ and the energy
11 savings and demand reduction goals of the Commission.

12 **B. Coordination with SDG&E's Long Term Resource Plan, Resource Adequacy**
13 **Proceeding and Integrated Energy Policy Report**

14 SDG&E's 2006-2008 Energy Efficiency program filings will be coordinated with
15 SDG&E's 2006 Long Term Resource Plan the Resource Adequacy Proceeding (R.04-04-003)
16 and the 2005 CEC Integrated Energy Policy Report. Specifically, in these filings SDG&E will
17 ensure that the Commission's energy efficiency targets are incorporated into SDG&E's long- and
18 short-term demand forecasts.

19 In addition, this application is also coordinated with the Demand Response and Low
20 Income Energy Efficiency applications which will be filed on June 1, 2005 in their respective
21 Rulemakings.

¹ Prepared by San Diego Regional Energy Office for the San Diego Association of Governments (SANDAG), July 2003.

1 **C. Administrative Structure for Energy Efficiency (D.05-01-055)**

2 As stated above, D.05-01-055 returns to the utilities the lead role in Program Choice and
3 Portfolio Management for Energy Efficiency. The decision also provides direction to the utilities
4 on competitive solicitations, partnerships, PAGs and portfolio design and program selection
5 process.

6 **1. Program Advisory Group**

7 D.05-01-055 directs the utilities to form advisory groups to provide feedback and
8 comments on their proposed program designs and competitive bid process. SDG&E's proposed
9 portfolio of programs is greatly enhanced by the input it received from its PAG and members of
10 the public who diligently attended all PAG meetings and public workshops.

11 SDG&E's PAG consists of representatives from different market segments in its service
12 territory. SDG&E's PAG members represent local governments, residential customers,
13 commercial/industrial/ military customers, new construction, academia, energy service providers,
14 in addition to the Consortium for Energy Efficiency ("CEE"), Natural Resources Defense
15 Council ("NRDC"), CEC, and Office of Ratepayer Advocates ("ORA"). SDG&E conducted a
16 total of 6 PAG meetings, 7 PAG subcommittee meetings and 2 public workshops. In addition,
17 SDG&E participated in two statewide PAG meetings held at the offices of Pacific Gas and
18 Electric Company ("PG&E"). A more detailed discussion of the PAG process is presented in the
19 next section below.

20 **2. Competitive Solicitation**

21 SDG&E agrees with the Commission that competitive solicitations can help identify new
22 and innovative approaches or technologies for meeting the energy savings goals with improved
23 performance that may not otherwise be identified during the program planning cycle. SDG&E

1 and the other utilities have coordinated their approach and bidding criteria to be implemented for
2 this program cycle. The competitive bidding process proposed by SDG&E is a comprehensive
3 and multi-faceted approach that draws from the skill, experience, and creativity of the energy
4 efficiency community. SDG&E's competitive bidding proposal will help to enhance current
5 program design as well as identify newer approaches to capturing cost effective energy savings.
6 Consistent with Commission direction, SDG&E's current proposed programs that can be
7 improved upon through the Solicitation process may be subject to replacement and/or
8 augmentation from non-utility bids.² Although SDG&E has currently identified 20 percent of its
9 total program funding as currently available for the Solicitation process, SDG&E could have a
10 final program portfolio that has more than 20 percent of its budget allocated to successful non-
11 utility implementers. SDG&E consulted with its Peer Review Group ("PRG") in developing its
12 competitive solicitation.³

13 Ms. Besa's testimony in Chapter II provides more details on SDG&E's Competitive Bid
14 Solicitation proposal.

15 **D. Energy Goals for Program Year 2006 and Beyond (D.04-09-060)**

16 **1. 2006—2008 Energy Savings And Demand Reduction Targets**

17 D.04-09-060 adopted the energy savings and demand reduction targets for SDG&E as
18 shown on the following table:
19

² D.05-01-055 at page 94.

³ The PRG is a subset of non-financially interested PAG members, the Energy Division, ORA and CEC.

Year	Gas Savings Annual Goal (MMTh/Yr)	Cumulative Gas Savings (MMTh)**	Energy Savings Annual Goal (GWH/Yr)	Cumulative Energy Savings (GWH)**	Demand Reductions (MW/Yr)	Cumulative Demand Reductions (MW)**
2006	2.7	6.3	280.5	821.5	54.6	155.3
2007	3.1	9.4	285.1	1106.6	54.2	209.5
2008	3.7	13.1	284.4	1391	54	263.5

1 ** The 2006 cumulative demand reduction goal includes the cumulative impact of 100.7 MW from 2004-
2 2005 programs. The 2006 cumulative energy savings goal includes the cumulative impact of 541 GWH and 3.6
3 MMtherms from 2004-2005 programs.

4
5 These goals include the energy savings and demand reductions from the Low Income
6 Energy Efficiency (“LIEE”) programs. Although, the Commission adopted aggressive goals, as
7 stated in D.04-09-060: “...our adjustments result in an adopted trajectory of GWh savings goals
8 for SDG&E that is 118 percent of the cumulative maximum achievable potential presented in the
9 disaggregated Secret Surplus Study...”⁴, SDG&E believes it can achieve the 2006 through 2008
10 energy savings goals with appropriate funding and strong response from third parties to the
11 competitive solicitation process. While we are cautiously optimistic about achieving the 2006
12 through 2008 targets, there are greater concerns regarding the ability to cost effectively achieve
13 the 2009 and beyond demand reduction targets. Although the company believes that some of the
14 innovative and new programs will develop new savings streams, it is essential that the
15 Commission review the goals for 2009 and beyond.

16 SDG&E’s proposed Energy Efficiency portfolio including the energy savings and demand
17 reductions from the 2006-2007 LIEE proposed programs exceeds the annual goals for each year.
18 The following table shows the energy savings goals and demand reductions for the proposed
19 portfolio:

⁴ D.04-09-060 at page 27.

Year	Proposed Gas Savings Annual Goal (MTh/Yr)	Cumulative Gas Savings (MTh)	Proposed Energy Savings A0nnual Goal (GWH/Yr)	Cumulative Energy Savings (GWH)	Proposed Demand Reductions (MW/Yr)	Cumulative Demand Reductions (MW)
2006	2.8	2,775	307	307	63	63
2007	3.1	5,844	337	644	70	134
2008	3.7	9,537	378	1022	80	213

1 ** These goals reflect the annual LIEE energy efficiency goals of 150,000 therms, 6 GWh and 1 MW for
2 2006—2007. SDG&E's assumes the 2008 LIEE goal to be the same as the 2006—2007 goals. The cumulative
3 demand reduction goal does not include the cumulative load impacts from of the 2004-2005 programs.

4
5 Ms. Besa's testimony in Chapter II provides more details on SDG&E's program
6 information.

7 **2. On-Bill Financing**

8 The Commission in D. 04-09-060 stated that IOUs should develop an "on-bill financing
9 ("OBF") option for energy efficiency as part of their program filings for 2006-2008 programs.
10 SDG&E believes that OBF could be a very effective tool for certain market segments to increase
11 the amount of energy efficiency that would not otherwise be achieved. SDG&E's proposed OBF
12 Program incorporates key elements of programs that SDG&E believes are successful and are
13 being implemented in other states.

14 Mr. Spasaro's testimony in Chapter III provides more details on SDG&E's On-Bill
15 Financing Proposal.

16 **3. Continued Support for Codes and Standards**

17 SDG&E is committed to continued support of continuous improvements in building
18 codes and standards as embodied in California's Title 20 and Title 24 standards, in addition to
19 working with its customers and other market participants to ensure the implementation of the
20 current building codes and standards. In October 2005, new Title 24 standards will become
21 effective. SDG&E, together with the other utilities, will provide technical training and

1 recommendations to builders, contractors, local building inspection and permitting departments,
2 etc. to assist in implementing of the new standards.

3 SDG&E has significantly increased its Codes and Standards budget to support continuous
4 improvements to the State's Codes and Standards. As part of the statewide program, SDG&E
5 will fund Codes and Standards Enhancement ("CASE") studies that will target enhancements to
6 the work being done in the CEC's Title 24 Building Energy Efficiency Standard Rulemaking.

7 **4. Rate and Bill Impacts Resulting from the Increased 2006-2008 Energy**
8 **Efficiency Program Budgets.**

9 In order to achieve the aggressive energy savings and demand reduction targets set by the
10 Commission, SDG&E requests approval of increased budgets beyond the current 2004-2005
11 program funding levels. The request for approval of the increased budgets will result in rate and
12 bill impacts for SDG&E's customers. SDG&E has designed programs to achieve the adopted
13 targets in the most cost-effective manner. However, these proposed budgets for 2006 through
14 2008 will result in rate impacts for some customer segments. These impacts are exacerbated by
15 the Commission's interpretation of AB1X which requires total rates be capped for usage up to
16 130% of baseline allowances for residential customers.

17 Ms. Besa's testimony in Chapter II discusses the program budget details. Ms. Davidson's
18 testimony in Chapter IV and Mr. Chen's testimony in Chapter V discuss the details of SDG&E's
19 rate and bill impacts.

20 **E. Energy Efficiency Policy Rules (D.05-04-051)**

21 SDG&E participated in the Commission's public workshops that were held to develop
22 the Energy Efficiency Policy Rules adopted in D.05-04-051. SDG&E's application conforms to
23 the various policy rules contained in the Energy Efficiency Policy Manual ("Policy Manual") for
24 Post-2005 Programs. Discussions in the following section describing SDG&E's Portfolio will

1 demonstrate specifically how it conforms to the Policy Manual. In addition, Ms. Besa's
2 testimony in Chapter II provides the technical details required by the Policy Manual, such as cost
3 effectiveness, evaluation, measurement and verification ("EM&V"), competitive bidding, and
4 partnerships.

5 **F. Performance Incentive Mechanism**

6 SDG&E has proposed an Energy Efficiency performance incentive mechanism in R.04-
7 04-003 that incorporates a performance basis that is a function of program net resource benefits
8 and consistent with the preferred loading order of the Energy Action Plan. Although SDG&E
9 proposed an Energy Efficiency incentive component in R.04-04-003, SDG&E's recommends that
10 the details of the energy efficiency incentive mechanism be developed in this rulemaking as
11 discussed by the Commission in several energy efficiency rulings and decisions in the Energy
12 Efficiency Rulemaking.⁵

13 **G. Program Advisory Group and Peer Review Group Process**

14 **1. Purpose of the Program Advisory Group**

15 The Commission created the PAG in order to:

- 16 • Promote transparency in program administrator's decision-making process.
- 17 • Provide a forum to obtain valuable technical expertise from stakeholders and
18 non-market participants.
- 19 • Encourage collaboration among stakeholders.
- 20 • Create an additional venue for public participation.
- 21 • Create an open exchange of information for administrator, experts, and
22 stakeholders.

⁵ December 22, 2003 Assigned Commissioner's Ruling Scheduling a Further Prehearing Conference to Address Energy Efficiency-Related Incentives and Other Scoping and Scheduling Issues at page 1 that "by Decision (D.) 03-12-062, the Commission referred the issue of energy efficiency incentives to this proceeding. And more recently in D. 04-09-060 at page 36, the Commission will consider "how best to link today's adopted savings goals with the performance basis of a risk/reward mechanism when we address, and in the context of the portfolio of programs being implemented at that time".

- 1 • Provide an independent assessment of utility portfolio design and program
2 selection throughout the funding cycle.

3
4 The PAG is expected to meet at least once every quarter and to provide a joint report to
5 the Energy Division with recommendations on (1) how the IOUs can improve their effectiveness
6 as administrators in managing the portfolio of programs; and (2) how the program selection
7 process can be improved to better meet the Commission’s procurement goals.

8 **2. Program Advisory Group Composition**

9 D. 05-01-055 provides guidance as to the composition of the PAG, and directions on the
10 PAG’s operations. The PAG should consist of market and non-market participants across the
11 full spectrum of program areas and strategies. Energy Division and Office of Ratepayer
12 Advocates (“ORA”) staff are *ex officio* members of each PAG Advisory Group and peer review
13 group (“PRG”). The CEC is also invited to participate as a member. With this guidance,
14 SDG&E invited representatives from various market segments and interested stakeholders to
15 participate in SDG&E’s PAG. The following are the members of SDG&E PAG:

- 16 • Rose Araracap – Military/U.S. Navy
17 • Devra Bachrach –Environmental/NRDC
18 • Alan Ball – Commercial Industrial/Qualcomm
19 • Sylvia Bender – California Energy Commission
20 • Dr. Asfaw Beyene – Academia/SDSU
21 • Tom Blair – Local Government/City of San Diego
22 • Beth Brummitt – EE/DRP Integration/Brummitt and Associates
23 • Jeff Grissom – Local Government/County of San Diego
24 • Rachel Harcharick – EM&V community/ITRON
25 • Marc Hoffman/Ed Wisniewski – Emerging Technology & National
26 Perspective/Consortium for Energy Efficiency
27 • Gary Matthews – Academia/UCSD
28 • Ariana Merlino – Energy Division
29 • Bob Noble – Nonresidential New Construction/Tucker Sadler Noble Castro
30 Architects

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- Bob Pinnegar – Residential Customers(MF) – San Diego County Apartment Association
- Jennifer Porter – Local Government/San Diego Regional Chamber of Commerce
- Rob Rundle – Local Government/SANDAG
- Rich Sperberg – ESCOs/NAESCO
- Irene Stillings – Local Government/SDREO
- Christine Tam – Office of Ratepayer Advocates
- Dr. Mark Thayer – Academia/SDSU
- Ken Willis – Residential Customers (SF) – League of California Homeowners

The Commission also provides guidance on the selection and function of the PRG. The PRG is a sub-group of the PAG and its membership consists of non-financially interested PAG members. The PRG is “expected to review the IOU’s submittals to the Commission and assess the IOU’s overall portfolio plans, their plans for bidding out pieces of the portfolio per the minimum bidding requirement, the bid evaluation criteria utilized by the IOUs and their application of that criteria in selecting third-party programs.”⁶ SDG&E’s PRG is chaired by Ariana Merlino, with the following PAG members serving on the PRG: Devra Bachrach, Sylvia Bender, Rachel Harcharick, Michael Shames, Christine Tam and Dr. Mark Thayer.

3. SDG&E Program Advisory Group Mission Statement

The following Mission Statement was adopted by SDG&E’s PAG at the March 21, 2005 PAG Meeting:

The mission of the Program Advisory Group (PAG) is to advise Administrators on how the energy efficiency portfolio can meet and exceed the California Public Utilities Commission’s (CPUC) energy savings and demand reduction goals and policy objectives, to provide input on customer and stakeholder wants and needs, and to help California

⁶ D.05-01-055 at page 105.

1 achieve leadership in integrating energy efficiency into the procurement
2 portfolio. The PAG supports the CPUC and Administrators in:

- 3 • Creating, building and maintaining a world-class energy efficiency program.
- 4 • Firmly establishing energy efficiency as a reliable resource.
- 5 • Capturing all cost effective energy efficiency savings.

6 The PAG will exist as long as the investor-owned utilities (IOUs) are the
7 portfolio administrators or until such time that the CPUC directs the IOUs
8 to dissolve them. Membership to the PAG maybe revised after each
9 program cycle.

11 **4. PAG and Public Workshop Process**

12 SDG&E conducted a total of 6 PAG meetings, 7 PAG subcommittee meetings and 2
13 public workshops.⁷ SDG&E PAG meetings were open to the public and allowed for public
14 comment during the meetings. SDG&E provided two opportunities for the PAG and the public
15 to attend presentations by national experts: (1) Dr. Amory Lovins' presentation of energy
16 efficiency ideas to stimulate more innovative program ideas; and (2) Marc Hoffman, of the
17 Consortium on Energy Efficiency, presented "Energy Efficiency Opportunities From A National
18 Perspective." SDG&E noticed all its PAG meetings and posted documents on a statewide
19 clearinghouse website www.californiaenergyefficiency.com.⁸ SDG&E also posted other
20 resource materials and websites that were useful to the PAG and the public.

21 In addition to presenting program proposals and soliciting new ideas and feedback from
22 PAG members and the public at PAG meetings, SDG&E provided updates on Commission

⁷ PAG Meetings: February 10, 2005; February 24, 2005; March 1, 2005; April 14, 2005; May 9, 2005.

Public Workshops: March 3, 2005; March 28, 2005

PAG Subcommittee Meetings: March 29, 2005; April 21, 2005; April 25, 2005

⁸ Notice of PAG meetings sent to parties in Rulemaking 01-08-028, 02-06-001, 04-01-006 and 04-04-003.

1 proceedings that were relevant to energy efficiency, e.g., the Avoided Cost Rulemaking, EM&V
2 activities, Energy Efficiency Policy Rules, the Rulemaking to Promote Policy and Program
3 Coordination and Integration in Electric Utility Resource Planning.

4 SDG&E conducted two public workshops to solicit broader public input from non-PAG
5 members concerning program design and implementation. At the first public workshop, SDG&E
6 included a brief presentation on its 2004 Long-Term Resource Plan.

7 In addition, SDG&E participated in two statewide PAG meetings held at the offices of
8 Pacific Gas and Electric Company ("PG&E") to discuss statewide programs and consistency
9 issues. At these meetings, the utilities discussed their individual program portfolios, revisions to
10 the existing statewide programs and their fund shifting and portfolio flexibility proposal.

11 **IV. SDG&E'S ENERGY EFFICIENCY PORTFOLIO DESCRIPTION**

12 **A. SDG&E's Approach to Portfolio Design**

13 SDG&E adopted overarching objectives that guided the development of its 2006-2008
14 program portfolio. These overarching objectives were to:

15 Achieve the energy savings and demand reduction targets established by the Commission and
16 reflected in SDG&E's resource plan;

17 Create innovative offerings that result in future savings streams;

18 Provide programs that integrate energy efficiency, demand response and renewable technologies;

19 Involve communities and valued service providers in the development and implementation of
20 programs; and

21 Make it easy for customers to participate in programs.

1 To increase opportunities for innovation, SDG&E's portfolio provides for 20 percent or
2 more of its program funding to be allocated to non-utility entities through a competitive bidding
3 process. Programs selected through a targeted solicitation and/or open bid for innovative ideas
4 will complement SDG&E's planned programs and represent an integral component of the
5 Company's portfolio.

6 **B. Market Sector Strategies to Meet SDG&E's Portfolio Savings**

7 In designing the portfolio, SDG&E has analyzed the technical potential identified in the "Secret
8 Surplus Energy Study" prepared by Kema-Xenergy. SDG&E has taken a market-based
9 approach and developed specific goals and targets for each of the market segments and end- uses
10 based on this potential. See Ms. Besa's testimony in Chapter II for more details on the market
11 specific goals and objectives.

12 **C. Integration with Demand Response and Renewables Programs**

13 One of the key policy initiatives that SDG&E is pursuing is the integration of Energy
14 Efficiency, Demand Response ("DR") and Renewable technologies into what its considers the
15 "holistic" approach to responding to the customer's energy needs but at the same time ensuring
16 system reliability. By utilizing the synergies between these options, SDG&E believes that
17 customers will be encouraged to address all the opportunities to improve their energy usage and
18 be more willing to continuously participate in these programs as they adopt these measures as
19 part of their overall energy management strategy thereby resulting in significantly higher levels of
20 energy savings and load reduction, and giving the customer more control over how much they
21 pay for energy and how they can respond to changing energy market conditions.

22 As part of its strategy, SDG&E will coordinate its Energy Efficiency programs with its
23 Demand Response programs by ensuring that customer service representatives discuss all

1 options with the customers, thereby providing the customer with more choices. This integrated
2 approach was piloted by the “Rebuild a Greener San Diego” program which represents a
3 collaborative effort between SDG&E, San Diego Regional Energy Office (“SDREO”), the City
4 of San Diego and the County of San Diego to provide assistance to fire victims of San Diego’s
5 2003 fires. This program provides a template for offering residential and small commercial
6 customers incentives by incorporating both energy efficiency and renewable technologies as they
7 rebuild their homes and establishments.

8 SDG&E’s Sustainable Communities and Advanced Home Programs are examples of
9 proposed programs integrated as they encourage customers to install high performance energy
10 efficiency and demand reduction technologies, along with clean on-site generation, water
11 conservation, transportation efficiency and waste reduction strategies.

12 Although, the energy efficiency programs offer incentives for the energy efficiency
13 component of the projects, and the DR programs offer incentives for specific demand response
14 assistance and technologies, SDG&E will assist customers with identifying funding sources for
15 renewable technologies through the CEC or other federal assistance programs.

16 **D. How the Portfolio Differs From Past Program Portfolios**

17 SDG&E’s program portfolio builds on the success of its current program portfolio.
18 SDG&E, however, proposes to improve the programs it seeks to continue into the 2006-2008
19 program cycle. To facilitate residential customer participation, SDG&E has simplified the
20 application process by increasing the number of appliances eligible for point-of-purchase rebates
21 and discounted energy efficiency products through manufacturer buy-downs. SDG&E is also
22 reviewing its verification requirements to minimize customer inconvenience.

1 For its Commercial/Industrial customers, SDG&E will:

2 Consolidate the current program offerings into a smaller number of simplified programs;

3 Modify the customer size eligibility requirements for programs to minimize confusion;

4 Offer incentives to energy service providers to work with customers to increase the number of

5 installed projects resulting from comprehensive audits;

6 Provide targeted outreach efforts to major market segments to identify energy efficiency and DR

7 program opportunities;

8 Consolidate successful 2004-2005 non-utility programs with compatible existing utility programs

9 to leverage opportunities for outreach to increase customer adoption of energy efficiency,

10 demand response and renewable technologies;

11 Review program verification requirements to lessen customer inconvenience;

12 Review existing program installation timelines and contract terms to better align with customer

13 needs (e.g., fiscal year planning versus calendar year planning cycles; customer confidentiality

14 needs, building construction time frames, etc.) and;

15 Provide on-bill financing option to motivate customers to install energy efficiency, demand

16 response and renewable technologies.

17 SDG&E is expanding the upstream programs to include lighting, heating, ventilation and

18 air conditioning ("HVAC") and motors to effectively promote increased floorstock for these

19 energy efficiency products. In addition, SDG&E is introducing several new programs that it

20 believes will stimulate long term energy savings potential. For example, SDG&E's Advanced

21 Home and Advanced Home Remodeling Programs allow new technologies to be tested in the

22 residential sector. This approach is critical as the traditional performance-based approach (i.e.,

23 exceed Title 24 standards by 10 or 15 percent) becomes increasingly non-cost-effective.

1 SDG&E is also partnering with the City of San Diego, City of Chula Vista and County of
2 San Diego to support effective incorporation and implementation of existing energy efficiency
3 Title 24 and Title 20 Codes and Standards (e.g. building permit processing and inspections). The
4 partnerships also encourage higher than standard code installations through activities such as
5 expedited permit processing for construction projects (new and retrofit) that exceed Title 24
6 standards as an alternative to providing incentives to contractors and builders. In addition, local
7 governments can adopt local energy policies that would require implementation of energy
8 efficiency measures beyond the state's Title 24 codes. Local governments can also serve as a
9 model of energy efficiency by adopting best practices and upgrading their facilities to be state-of-
10 the-art buildings and facilities.

11 **E. Discussion of Challenges SDG&E Foresees in Implementing the Proposed Portfolio**

12 Numerous challenges affect today's energy efficiency program planners:

13 Energy efficiency standards, codes, and ordinances are catching up with today's best
14 technologies. As an example, minimum efficiency standards for residential furnaces and boilers
15 could be increased within the next few years.

16 As today's technologies approach "theoretical" maximums, incremental efficiency becomes ever
17 more expensive. SDG&E has been implementing energy efficiency programs for the last 10 years
18 and the proverbial "low hanging fruit" has been harvested making it more difficult and expensive
19 to achieve energy savings.

20 As incremental efficiency gains become more expensive, market-potential total resource net
21 benefits decline.

22 On-site renewable systems cannot be marketed on simple payback.

1 SDG&E’s portfolio addresses these challenges by (1) incorporating flexibility into
2 program design, allocating significant resources towards the identification and development of
3 emerging technologies, and (2) by promoting the “holistic” approach by offering customers a
4 wide range of choices on how best to address their energy needs through the integration of energy
5 efficiency, demand response and renewable technologies as exemplified by the Sustainable
6 Communities and Advance Home programs.

7 In addition to the examples of challenges outlined above, there are other risk factors that
8 can affect any business model, and could impact the state’s ability to reach its energy efficiency
9 targets. Examples are:

10 *The timing of increases in efficiency standards and codes.* The timing for any such changes can
11 affect SDG&E’s ability to incorporate alternative technologies and strategies into its program
12 portfolio. When standards change, industry resources tend to be allocated towards meeting the
13 standard, not pursuing higher efficiency levels.

14 *Expected decreases in production costs for renewable technologies are not realized.* Most
15 projections of adoption rates for renewable technologies incorporate the impact of efficiencies of
16 scale on future production costs. To the extent that these efficiencies are not realized, prices may
17 not fall.

18 *Lack of contractors to service customers.* The “start-stop” approach to programs in the past years
19 has not encouraged the creation of a vibrant and flexible contractor market. It has been
20 SDG&E’s experience in the past that contractors will “migrate” to other service territories to
21 follow the funding. Inadvertent competition between utilities due to varying levels of incentives
22 has resulted in smaller number of contractors able to meet customer demand. The

1 three-year program cycle and added fund shifting flexibility will encourage more contractors to
2 invest in the business and lead to a thriving contractor market.

3 *General economic conditions.* Higher interest rates can reduce industry research and
4 development, limiting investments in new technologies. Real estate prices can decline,
5 discouraging builders and contractors from investing and installing more expensive energy
6 efficiency technologies compared to standard efficiency technologies thereby dampening the
7 savings potential for new construction and remodeling programs. Military base closures can
8 affect local and regional economies. Tax credits for investments in energy efficiency and
9 renewable energy systems can change, reducing the attractiveness of investments in these areas.

10 *Decline in customer perception of need for energy savings.* The energy crisis of 2000-2001,
11 while a recent memory for utility personnel and regulators, may not be as significant to
12 consumers or the media as this competes with other issues such as rising gasoline prices for the
13 summer.

14 SDG&E is confident its program portfolio is sufficiently robust and flexible to meet many
15 of these challenges, and is prepared to shift resources and develop new strategies to address
16 various contingencies and maximize the chances for future success.

17 **F. Description of Proposed Statewide Marketing Effort**

18 SDG&E, together with PG&E, SCE and Southern California Gas Company (SoCalGas),
19 propose to continue and build upon the success of the existing statewide programs, i.e. the
20 Efficiency Partnership, Univision and Runyon Saltzman & Einhorn. The statewide campaign
21 provides high level awareness about energy efficiency and energy and water conservation.
22 Continuation of these statewide programs will build upon their strengths, particularly in the
23 various ethnic communities they serve, allow development of other ethnic group outreach

1 (besides Spanish-speaking) efforts and ensure strong coordination between the statewide
2 marketing outreach efforts and the utility program efforts.

3 In addition, the IOUs are proposing to collaborate with the Energy Coalition on the
4 integrated energy efficiency and demand response PEAK Student Energy Action program. This
5 program is a comprehensive student learning experience intended to teach school children the
6 value of smart energy management.

7 **G. Description of Approach to Portfolio Level Quality Assurance and Inspection**

8 SDG&E currently has quality control procedures in place to verify that measures are
9 installed prior to payment, and in certain programs such as the Standard Performance Contract
10 Program, SDG&E will conduct pre-installation inspections as well. SDG&E conducts on-site
11 inspections at customer sites to ensure that the measures are installed and match the information
12 that is provided in the application. Inspection quantities can vary from a sample to 100 percent
13 of site inspections, depending on the type of measures and/or the amount of the rebates paid.
14 Inspections are managed and conducted by SDG&E staff. As part of its commitment to process
15 improvement, SDG&E continuously evaluates the sample size requirements for the various
16 programs and determines ways to make it convenient for customers.

17 **H. Description of How SDG&E's Portfolio Diversifies Risk in Meeting Savings Goals**

18 A well-considered risk management strategy is as important to utility demand-side
19 planning as it is to supply-side resource planning. The SDG&E portfolio reduces overall risk by
20 diversifying its programs along three principal axes:

- 21 • Technologies
- 22 • Market segments
- 23 • Market channels and agents

1 **1. Technologies**

2 The spectrum of programs in SDG&E’s program portfolio promotes a wide variety of
3 widely-applicable technologies, covering virtually all electric and natural gas end-uses in the
4 residential and non-residential market sectors. SDG&E balances its risk by continuously looking
5 into new technologies and working with the market to remain vigilant regarding changing trends
6 in existing technologies. SDG&E’s Advanced Home and Emerging Technologies Programs and
7 non-utility innovative/emerging technology programs will also help reduce the risks associated
8 with an over-reliance on existing technologies.

9 **2. Market Segments**

10 Diversification across market segments reduces the risks associated with economic or
11 other risk factors. As an example, new construction and/or industrial programs offer an
12 opportunity to capture significant savings, but these market segments are sensitive to economic
13 conditions. Industrial and commercial customers will sharply curtail investments in energy
14 efficiency during economic downturns. Certain other programs, such as the Residential and
15 Non-Residential Energy Efficiency Programs are normally less sensitive to economic
16 fluctuations. Changes in energy efficiency standards or building codes can affect the Advanced
17 Home Program to a greater extent than the third-party Advanced Home Renovation Program
18 concept.

19 **3. Market Channels and Agents**

20 Diversity in market channels can reduce risk within an individual program. For example,
21 upstream incentives have the potential to open new market channels within the Single Family,
22 Multifamily and Non-Residential Energy Efficiency Programs. The third-party Advanced Home
23 Renovation Program concept can open up a new market channel – home remodeling contractors.

1 By utilizing a mix of market agents, SDG&E further reduces program risk. An
2 appropriate level of third-party involvement in the delivery of services can be an effective
3 mechanism for introducing innovative implementation, marketing, and service delivery concepts
4 into existing programs. SDG&E programs that identify new technologies also have the potential
5 to increase the range of market channels and market agents for the entire portfolio.

6 **I. Description of How Portfolio Leverages State, Regional and National Efforts**

7 SDG&E, as in the past several years, has coordinated with PG&E, SCE and SoCalGas,
8 particularly for programs that involve upstream/midstream market actors that operate throughout
9 California. Examples of midstream/upstream market actors are Big Box Retailers, e.g., Home
10 Depot, Costco, etc.; energy service providers that work with large customers that have a
11 statewide presence e.g., banks, grocery chains, etc.; manufacturers and manufacturing trade
12 associations, etc.. Coordinating with the other utilities facilitates the availability of high quality
13 energy efficient products in California. Additionally, the utilities have also coordinated with
14 other municipalities such as Sacramento Municipal Utility District, Los Angeles Department of
15 Water & Power, etc. to promote common products at comparable rebate levels. SDG&E will
16 continue these statewide coordination efforts to continually improve energy efficiency product
17 selection and availability, and standardize efficiency requirements.

18 SDG&E also collaborates with state agencies, particularly the CEC, on such programs as
19 emerging technologies and codes and standard activities. In order to assist the various state
20 agencies in complying with the Governor's Executive Order for Green Buildings, SDG&E will
21 work with various state agencies to increase participation in its energy efficiency programs. On
22 the regional and national front, SDG&E is an active participant in the activities of various entities
23 such as the Department of Energy/Environmental Protection Agency on the ENERGY STAR[®]

1 program, the Consortium for Energy Efficiency, and the American Council for an Energy
2 Efficient Economy. These organizations support and encourage improvements in energy
3 efficiency standards on a national level.

4 **J. Description of How the Portfolio “Plants the Seeds” for a Future Ramp-Up in**
5 **Savings to Meet the More Aggressive Targets Beyond 2008**

6 SDG&E’s portfolio incorporates several strategies to facilitate a ramp-up in savings to
7 meet more aggressive targets beyond 2008. The following are central components of that
8 strategy:

9 **1. Increase the Flexibility of the Core Programs**

10 By building flexibility into the Residential Single Family, Multifamily and Non-
11 residential Energy Efficiency programs, additional technologies, market channels, incentive
12 structures, and delivery mechanisms can be incorporated and the program improved on a
13 continual basis.

14 **2. Leverage Third Party Energy Efficiency Service Providers to Introduce and**
15 **Develop Market Channels for New Technologies**

16 SDG&E’s development strategy envisions a key role for third-parties in reaching beyond
17 the horizon to identify promising new technologies and develop the marketing approaches
18 necessary to gain acceptance for these new products and services. SDG&E, in its role as the
19 Portfolio Manager, will offer considerable support to non-utilities engaged in the development
20 and delivery of innovative products and services, particularly those who are selected through its
21 Competitive Solicitation process. This relationship should allow SDG&E’s customers to
22 overcome the uncertainties due in part to a lack of information associated with new technologies.
23 SDG&E plans to make available additional funds through fund shifting flexibility, for emerging
24 technologies that become available throughout the program cycle.

1 **3. Promote the Convergence of Statewide, and National Green / Sustainable**
2 **Building Initiatives with the SDG&E Program Portfolio**

3 Nationwide, the recent growth in green and sustainable building programs is a strong
4 indicator of future demand for green buildings. In order to maximize the energy savings
5 potential of these homes and buildings, SDG&E is leveraging statewide green initiatives with
6 several of its new programs such as Advanced Home program in addition to expanding its
7 Savings By Design and Sustainable Communities Programs. To expand the market for green
8 building practices beyond the new construction market, the SPC program and the third-party
9 Advanced Home Remodeling Program will target the pre-1970s homes that have been previously
10 identified as a key residential market segment.

11 **4. Invest in Education and Training Programs, to Stimulate the Future Demand**
12 **For Energy Efficiency, and to Help Develop the Skills Needed for 2009 and**
13 **Beyond**

14 For many customers, the residential and non-residential audit programs act as the starting
15 point for outreach and education. The audits leverage participation in other programs in
16 SDG&E's portfolio. SDG&E's partnership with the water agencies in its territory to conduct
17 combined energy and water audits increases the customer's awareness of the importance of their
18 environment and the value of various resources. SDG&E's targeted solicitation for innovative
19 and comprehensive school programs is another important tool for future generations who will
20 have a "green" code of ethics and demand that their appliances and equipment are energy
21 efficient.

22 Training programs, such as the HVAC Certification and Training Program and SDG&E's
23 partnership program with SDREO, through their Energy Resource Center, address the need for
24 continued involvement in building the human resource infrastructure necessary to support new
25 programs and new technologies.

1 **5. Invest Substantial SDG&E Resources in Programs that Identify, Help**
2 **Develop, and Promote the Adoption of New Energy Efficiency Technologies**

3 SDG&E responds to its recognition of the importance of investing in new and emerging
4 technologies by significantly increasing its Emerging Technology Program budget for 2006
5 through 2008. SDG&E also incorporated changes to its existing programs to provide them with
6 the flexibility required to accommodate new technologies, develop new market channels, and
7 create incentive structures that will accelerate the adoption of new technologies. In addition,
8 these and several other programs (such the Advanced Home Program, Emerging Technologies,
9 Sustainable Communities, and the Innovative Solicitation component) will focus on identifying
10 new technologies and developing program implementation strategies for integrating these
11 technologies into SDG&E's future program portfolios. Fund shifting flexibility will allow
12 SDG&E to transfer funds to these programs that provide for future savings potential as these
13 programs mature.

14 **K. Improving the Portfolio During the Program Cycle and What Strategic Planning**
15 **Initiatives Will Continue Beyond June 1, 2005**

16 The current planning cycle, from January through mid-May 2005, was indeed an
17 aggressive schedule. Although, SDG&E, its PAG and public participants had several meetings
18 to discuss and develop this 2006-2008 portfolio of programs, much work still remains to ensure
19 the smooth implementation of these programs.

20 SDG&E is committed to follow-up meetings with its PAG and/or PAG subcommittees to
21 continue to refine program details. An example is the coordination of the expedited permitting
22 program offered by several of SDG&E's partnerships and the new construction programs.

23 Another is the discussion to determine the optimum and most cost effective method to continue

1 offering performance-based incentives for residential new construction in conjunction with its
2 Advanced Home Program.

3 SDG&E will also continue to work with its PRG on the competitive solicitation process.
4 After the selection process of qualified non-utility programs, SDG&E will work with the PRG to
5 ensure that the final portfolio --- SDG&E's core programs and non-utility programs -- is cost-
6 effective and innovative, provides ample opportunities for future savings and will be successful
7 in meeting Commission established goals.

8 On the statewide level, SDG&E is committed to working with the statewide HVAC and
9 Water Heating subcommittees to discuss and refine program requirements and identify
10 opportunities to promote energy efficiency in these end use markets. As the utilities continue to
11 finalize their portfolios, SDG&E will continue to coordinate on statewide program details in
12 areas such as: measures, rebate levels, program participant transparency (i.e., avoid confusion
13 and frustration among customers that are statewide and energy efficiency service providers that
14 seek to serve these customers), and programs that are targeted at upstream market participants
15 such as upstream HVAC, motors and lighting.

16 **L. Description of How Programs Delivered by All Implementers Within the Portfolio**
17 **Will be Coordinated to Ensure Success**

18 Within the long-term perspective that SDG&E is adopting with this program portfolio,
19 third-party/non-utility implementers, marketing and outreach partners, and other market actors
20 have and will continue to benefit from increased program participation and increased roles in the
21 planning and development of new program strategies.

22 In its efforts to cover all market sectors and technologies, SDG&E recognizes that within
23 its portfolio, it is important to incorporate a strategy that minimizes overlap and allows non-

1 utility implementers to participate in the delivery of program services. To the extent that certain
2 programs are intended to leverage customer participation in other programs, a certain amount of
3 overlap is indeed desirable. However, based on experience, overlaps between two or more third-
4 parties, or between SDG&E and third parties can create conflict and customer confusion. In
5 order to maximize the chances for third party implementers to be successful and to minimize
6 customer confusion, markets and program responsibilities have been clearly delineated as part of
7 the process for determining which programs or program components will be competitively bid.

8 Once third-party implementers have been selected, SDG&E will have quarterly
9 conferences including implementers, in order to share experiences, listen to suggestions, develop
10 more consistent communication and marketing strategies, and resolve conflicts.

11 A conference planning committee will be established to formulate agenda items and
12 conference activities. This Committee will be comprised of implementers and SDG&E staff
13 working collaboratively.

14 Through the quarterly conferences of efficiency program implementers, participants will
15 be offered the opportunity to create alliances and cooperative arrangements to improve market
16 performance. For example, installers may arrange with retailers to refer each other's clients, or
17 non-competing implementers may jointly address the same population with sales messages.

18 SDG&E also intends to treat these quarterly conferences as training sessions for the
19 implementers. These sessions will include a focus on continuous customer service
20 improvements leveraging SDG&E's experience in providing customer service as a public utility.
21 Techniques that garnered SDG&E consistently high customer service satisfaction ratings will be
22 shared with emerging providers of energy efficiency services.

1 As part of its Portfolio Management responsibilities, SDG&E's management will also
2 review on a monthly basis the general progress of the utility and non-utility programs, reviewing
3 both expenditures and goal achievement. Programs that appear to have difficulties in penetrating
4 their designated markets will be reviewed and remedial measures, e.g., change in market
5 approach, addition/deletion of measures, incentive changes, etc., will be implemented as
6 necessary. Ultimately, programs that are not successful after a reasonable implementation period
7 in the market and not achieving goal may be replaced or enhanced. On the other hand, programs
8 that are successful and in high demand or if the introduction of new measures will further
9 enhance performance, SDG&E will move quickly to ensure that funds are not depleted and
10 prevent program closures due to lack of funding. Fund shifting and portfolio flexibility
11 mechanisms adopted by the Commission will allow SDG&E, in consultation with its PAG and
12 PRG, to make these changes.

13 **M. Recommendations from PAG, PRG and Public Workshops**

14 SDG&E's PAG and public input process has indeed been a fruitful venture and has
15 resulted in a significantly stronger, more innovative portfolio. SDG&E received a total of 142
16 unique program recommendations from various PAG members and the public. Of these
17 recommendations, SDG&E has incorporated over 100 recommendations and rejected very few.
18 Attached is the list of all the recommendations received, the contributing parties and SDG&E's
19 response to the recommendation.

20 This concludes my prepared direct testimony.

1 **V. QUALIFICATIONS**

2 My name is Patricia Wagner and I am employed by Southern California Gas Company
3 (“SoCalGas”). My business address is 1919 State College Boulevard, Anaheim,, California
4 92806-6114.

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

7 I received a Bachelor of Science degree in Chemical Engineering from California State
8 Polytechnic University. I also earned a Masters degree in Business Administration from
9 Pepperdine University. I joined SDG&E in 1995 as a market advisor in the marketing
10 department, and have since held positions of increasing responsibility. I assumed my current
11 position in April 2002.

12 The purpose of my testimony is to sponsor SDG&E’s proposal to achieve the
13 Commission adopted energy efficiency savings and demand reductions for 2006-2008.

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

Attachment A

Wagner Testimony

San Diego Gas & Electric Company

PAG Recommendations

Consolidated List of PAG Recommendations and SDG&E Responses		Responses	PAG Member	Non-PAG Members
Program Area	Recommendation			
Overarching	Review administration budgets relative to implementation budgets. Need to be effective.	SDG&E is constantly streamlining its budget through the planning process.	UCAN, SDSU (Dr. Thayer)	
Overarching	Programs should capture savings for early replacements and not reflect savings just from the standard equipment. It should be reflected in the cost effectiveness calculations. This issue should also be coordinated with other utility PAGs. Find ways to identify potential customers who are within 5-10 years of replacing equipment.	SDG&E will work through the various regulatory processes (e.g., Policy Rules, Reporting Requirements and Evaluation Measurement & Verification Protocols) to promote this recommendation.	NAESCO, Brummitt	
Overarching	The free-ridership issue should be considered a non-issue.	This is a Commission policy issue that should be revisited through various workshops in the energy efficiency proceeding.	NAESCO, SDSU (Dr. Thayer)	
Overarching	Need for comprehensive approach to various programs: rebates, audits, education that facilitates and encourages customer participation.	SDG&E agrees with this approach and have incorporated this concept throughout the programs.	All	
Overarching	Need to consider messaging approach to encouraging energy efficiency beyond "just dollars saved".	SDG&E will work with different groups on marketing and outreach, particularly with Flex Your Power since this is the statewide marketing outreach program.	Brummitt, SDREO	
Overarching	"Start-Stop" of program due to funding deficiencies needs to be addressed. Incentives are not widely known to users, and it may help to advertise efficiency efforts.	SDG&E will address this issue in its fund-shifting proposal.	NAESCO	
Overarching	I think the report is well designed and it encompasses wide range of opportunities. However, it has become complex, and the user will have to read through hundreds of pages to identify where and what type of opportunity he could qualify and apply for. An easily accessible short description of all the opportunities explaining the differences among the programs stating who may qualify for each particular scenario would be very helpful.	SDG&E will work with different groups on marketing and outreach, particularly with Flex Your Power. SDG&E will create a summary of programs and partnership opportunities offered in 2006-2008.	SDSU (Dr. Beyenne)	
Overarching	We recommend that the Southern California utilities partner with the local water agencies (for example, the Metropolitan Water District) and local governments to do more water efficiency programs that recognize the high avoided cost of energy embedded in water consumption. This is also a good area for local govt partnerships.	SDG&E will work with the SD County Water Authority and the City of SD Water Resources group to leverage the existing voucher system that these water agencies use in providing rebates to customers. This collaboration will also explore other applications that reduce energy consumption and promote water conservation such as pre-ribe spray heads.	SDSU (Dr. Beyenne)	
Overarching	The utilities and implementers should strive to enable program participants to conduct as much of the process online as possible.	SDG&E agrees with this approach and will move toward having more processes interactive.	NRDC	
Overarching	As much as possible, all programs should be tiered to continue pushing the envelope and encourage the next level of efficiency.	SDG&E agrees with this approach.	NRDC	
Overarching	The utilities could begin building a database of information about customers to more effectively target programs.	SDG&E currently uses a customer database to target programs.	NRDC	

Consolidated List of PAG Recommendations and SDG&E Responses				
Program Area	Recommendation	Responses	PAG Member	Non-PAG Members
Overarching	Provide information in a customer-centered manner (eg. I'm a local gov't, what should I do?) rather than with a long list of program options. Look at targeting programs to particular areas or sectors. For example, with the new avoided costs, consider emphasizing outreach in areas that have high T&D avoided costs. Also consider sectors that are experiencing high growth, for example, the biotech and medical industries. (May be good areas to bid out.)	SDG&E agrees with this recommendation and will be working on developing online tools to assist customers. These tools will also be available for our customer service center representatives.	NRDC	
Overarching	Follow up with customers to see if they implemented the recommendations and remind them to do it; also use it to track program success. Also, include direct installation of low-cost measures with on-site audits. Link audit recommendations to both rebate offerings and information on how to / where to buy recommended items (e.g. how do I find a contractor to get my ducts tested and sealed?). For example, for each recommendation provided to the customer, allow the customer to enter zip code and search for the nearby contractors that they can use.	SDG&E will continue to do industry-specific marketing. Segments targeted are Hospitality, Scientific, Military, Food Service Businesses, and Small Mini-Markets.	NRDC	
Overarching	Look at making higher tiers consistent with the proposed federal tax incentives.	SDG&E agrees with this recommendation and will look at ways to incorporate it into the programs.	NRDC	
PAG Process	Public should be invited to participate in an active way at the PAG.	SDG&E will explore this recommendation. SDG&E will need to gather more information on the proposed federal tax incentives.	NRDC	
PAG Process	Minimize presentations at the PAG meetings to maximize discussion opportunities.	Public Workshops were held on March 3rd, and March 28th. Notices of these meetings were posted on SDG&E's website.	All	
Codes & Standards	Potential CASE Study: Commercial HVAC for large buildings (not the rooftop units) retrofit/new construction + commissioning: are more creative ideas needed to develop system specs for the 2008 code?	SDG&E scheduled specific time for discussion/feedback opportunities at each PAG meeting. In cases where time ran out, PAG members were asked to e-mail or call SDG&E directly with suggestions.	UCAN	
Codes & Standards	Support NBI's efforts to develop the next generation of programs and codes beyond T24.	SDG&E is participating with the California Commissioning Collaborative for 2008 code enhancements incl. HVAC.	NRDC	
Codes & Standards	Consider new standards that would effectively ban incandescent bulbs. Also investigate ability to effectively ban T12 lamps based on current federal standards.	SDG&E works closely with NBI on codes projects.	NRDC	
Competitive Bid	Since it is most likely that the bid budget will increase over the three year period, consider setting aside bid funds for additional solicitations in the second and third years.	SDG&E will work with the CEC and the other IOUs to explore opportunities to accomplish this.	NRDC	
Competitive Bid	Consider tree programs for climates with high AC load in partnership with cities or other entities that promote tree programs for their other benefits (e.g. property values). (May be good area to bid out.)	SDG&E believes there is potential for conducting additional solicitations. Will discuss criteria further with PRG.	ORA	
Competitive Bid	Pursue efficient computers - both the power supply and power management software. (May be good area to bid out.)	SDG&E will consider in the Bid. SDG&E will address this technology in Emerging Technologies.	NRDC	

Consolidated List of PAG Recommendations and SDG&E Responses			
Program Area	Recommendation	Responses	PAG Member
Competitive Bid	Time of sale - incentivize home inspectors (during home sale process) to identify energy saving opportunities and link to other EE programs. (May be good area to bid out.)	SDG&E will consider in the Bid.	NRDC
Competitive Bid	LED holiday lights - plans for public showcases, make available at Xmas tree lots, etc. Investigate whether quality testing is needed. (May be good area to bid out.)	LED Holiday lights will be incorporated as part of the Upstream Lighting program	NRDC
Competitive Bid	Pilot educational component along with programmable thermostats. (May be good area to bid out.)	SDG&E will include programmable thermostat educational piece in the Education and Training program.	NRDC
Competitive Bid	Building commissioning/recommissioning (May be good area to bid out.)	SDG&E has included this recommendation within the Partnership Programs with local governments and State Institutions.	NRDC
Emerging Technologies	RASS shows that TVs, PCs and office equipment are 15% of average residential usage & we currently don't go after that. There should be an accelerated effort to develop a test method and gather data to lay the groundwork for an Energy Star spec for TVs and set-top boxes.	We will work with Energy Star to encourage development of labeling for these products.	NRDC
Emerging Technologies	Improve Solar Pathway lights as replacement for outdoor lighting	This is part of SDG&Es work with CLTC and the CEC.	NRDC
Emerging Technologies	Ensure close coordination between PIER and the programs	This work is currently underway.	NRDC
Emerging Technologies	Build a better set-top box	See response to item #34.	NRDC
Emerging Technologies	Hotels in other countries use key cards to activate the lighting and potentially the HVAC system in hotel rooms. Explore the possibility of using the technology here.	This is addressed in the Emerging Technologies program.	NRDC
Emerging Technologies	Look into new roofing materials.	This is addressed in the Emerging Technologies program.	CEE
Nonres Audit/Education	There are opportunities for third parties without financial interest to conduct customer audits. However, there should be more interaction between the auditor and the contractor to facilitate the implementation process for the customer.	SDG&E has addressed this recommendation within the Small Business Super Saver, Express Efficiency, and SPC programs.	SDREO
Nonres Audit/Education	Consider having account representatives for small to mid-size businesses participate in trade associations shows to disseminate program information.	SDG&E currently has field representatives that work with small/medium customers. SDG&E also participates in various trade association meetings and shows.	
Nonres Audit/Education	Every program and process needs an education component; provide customers with education & information on new technologies.	SDG&E will incorporate this recommendation into its education & outreach efforts.	SDREO
Nonres Audit/Education	Encourage more energy service company (ESCO) outreach and customer interaction so that more comprehensive retrofit projects can be developed.	These program design issues will be considered in the 2006-2008 program planning. There is current consideration for streamlining and simplifying the application process.	NAESCO
Nonres Audit/Education	Recommend building commissioning be given consideration as part of the energy efficiency programs for commercial and industrial customers.	This program will be incorporated in the Competitive Bid.	NRDC
Nonres Audit/Education	Develop ENERGY STAR and CEE Tiered specs into the large scale purchasing specs and RFPs that large corporations and institutions use.	SDG&E can coordinate with other entities (e.g., CEE) to assist in developing these materials.	NRDC

Consolidated List of PAG Recommendations and SDG&E Responses			
Program Area	Recommendation	Responses	PAG Member
Nonres Audit/Education	Conduct Best Practices Workshops to Improve Productivity by Investing in Energy Efficiency	These workshops can be incorporated through the proposed Energy Resource Center.	CEC
Nonres Overarching	Leverage the Energy Star partners program as a way to market to motivated customers. Consider building rating system.	SDG&E can incorporate this as one of the outreach methods.	CEE, KEMA, SDREO
Nonres Overarching	Work with the Chamber of commerce to reach out to HTR business	SDG&E will continue to work with the Chambers of Commerce and other trade associations to work with the small/medium customers	Chamber of Commerce
Nonres Overarching	Incorporate the Governor's Executive Order for Green Buildings in program offerings.	SDG&E is incorporating this into its programs.	NAESCO
Nonres Rebates	Need to address the split-incentive issue and determine a means to create incentives for building owners to put in more energy efficiency measures	SDG&E will explore incentive mechanisms that will encourage both building owners and renters to invest in energy efficiency. Currently SDG&E has requested that the Commission to approve increasing rebates for renters/owners in its Express Efficiency program as a way of overcoming this split incentive issue.	NAESCO, Qualcomm
Nonres Rebates	Consider providing premiums for comprehensive energy efficiency projects (compared to single end use applications) in the Express Efficiency program.	SDG&E will provide premiums for comprehensive projects.	NAESCO
Nonres Rebates	Consider addressing the following large customer issues: (a) protection for proprietary information gathered during audits and (b) indemnification issues and (c) time frames need to be more flexible to accommodate the customer decision-making timeframes.	SDG&E will consider contract terms to best meet installation timeframes of different market sectors (e.g., local governments, military, etc.).	US Navy, Qualcomm
Nonres Rebates	One of the upstream market participants that SDG&E should work with manufacturers of industrial grade appliances (e.g., commercial refrigeration, cooking, etc.)	This will be addressed in the Upstream Program as a competitive bid.	Qualcomm
Nonres Rebates	Sub-metering or individual metering should be looked at as a means to address the split-incentive issue between building owners and tenants	This should be addressed at the legislature to change existing laws and regulations on metering.	NAESCO
Nonres Rebates	Reconsider specific focus on "food service" market.	SDG&E feels the best approach is to include specific food service measures in the Small Business Super Saver and the Express Efficiency Programs. Marketing efforts will be industry specific to include this segment.	SDSU (Dr. Beyenne)
Nonres Rebates	Consider expanding the recycling program to include A/Cs and small commercial refrigerators.	SDG&E has incorporated those components into its recycling concept.	ORA
Nonres Rebates	Consider simplifying program offerings by segmenting the market by customer size with 100 kW or 24,000 therms as the cut-off.	SDG&E programs are segmented by size and do not overlap. (SBSS under 100kW, Express >100 kW, SPC = all customer sizes)	SDSU (Dr. Thayer), NAESCO, KEMA, SDREO
Nonres Rebates	For small customers (below 100 kW), offer sliding or tiered approach for rebates together with on-bill financing.	The small customer will be able to receive the highest rebate available with the on bill financing option. This keeps the program simple for the customer and eliminate the need for a tiered approach.	SDSU (Dr. Thayer), NAESCO, KEMA, SDREO
			City of Chula Vista
			City of Chula Vista

Consolidated List of PAG Recommendations and SDG&E Responses		Responses	PAG Member	Non-PAG Members
Program Area	Recommendation			
Nonres Rebates	In several cases, the utility incentives are offered based on peak electric demands. A customer with an idling kW that runs occasionally may therefore qualify for incentives. There is hardly any benefit of offering incentives to or based on equipment that are, say stored as a backup. If the data allow, I think all incentives should be offered based on kWh, not just kW.	The current design of the 2006 - 2008 incentive programs pays rebates or incentives based on the kWh saving.		
Nonres Rebates	As observed during the last PAG meeting, there have been some initiatives to offer incentives for piping, primarily to reduce friction losses. This is an element of proper and good engineering that should not be given any incentive. There are several textbooks on friction losses in piping systems and the technology is widely known. In fact, I teach a class where piping losses are one significant chapter of the course. However, I support educational measures such as workshops and seminars to better educate HVAC technicians.	Program incentives are designed to be paid based on energy savings from installation of a more energy efficient equipment. Educational seminars, especially the Building Operator Certification program, are designed to help educate facility managers on energy efficiency and building system operations.		
Nonres Rebates	The existing document has done a very good job of addressing residential and small business such as restaurants. However, medium sized manufacturing, some where between 500 kW and 2000 kW are addressed poorly. Manufacturing has a highly concentrated energy use, and offers an easy target for conservation, efficiency, and demand reduction. They often have qualified personnel who understand the ideas, and the growing pollution restrictions and energy demand has put constraints on their ability to compete nationally and internationally. I think a lot can be done to serve this market segment.	SDG&E will target the manufacturing segment within the Energy Savings Bid program.	SDSU (Dr. Beyenne)	
Nonres Rebates	Consider power strip occupancy sensors for office buildings	SDG&E Express Efficiency and Small Business Super Saver will have software plug load sensors in their programs.	NRDC	
Nonres Rebates	Allow programs to count savings for early replacements for certain measures (e.g. upgrades of T12 to efficient T8s). Focus on making Super T8 and Programmed Rapid Start Ballasts available in the market, and provide higher rebates for these measures than for standard T8s and fixtures.	SDG&E Express Efficiency and Small Business Super Saver will have tiered rebates for T12 to Super T8 retrofits in the program. The energy savings is still being researched.	NRDC	
Nonres Rebates	Target refrigerated beverage vending machines to enable low power mode feature and to retrofit lamps.	SDG&E C & I has incorporated this idea in to the program planning and is awaiting additional energy savings information.	NRDC	
Nonres Rebates	Consider Hotel/Assisted Living Bathroom Light products in retrofit and new construction programs.	SDG&E Express Efficiency and Small Business Super Saver will have vending machine controllers in the program. The two program teams are still researching energy savings for vending machines, controllers for reach-in coolers and snack machines.	NRDC	
Nonres Rebates	Target EE efforts to hospital retrofits and new construction as due to the renovations that are occurring to comply with seismic upgrade regulations.	SDG&E Express Efficiency and Small Business Super Saver is still researching the energy savings for this measure and hope to add it to the programs.	NRDC	
Nonres Rebates	Target EE efforts to hospital retrofits and new construction as due to the renovations that are occurring to comply with seismic upgrade regulations.	SDG&E will continue to work with hospitals as they retrofit their existing facilities and build new facilities.	NRDC	

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Program Area	Recommendation			
Nonres Rebates	Develop a tailored program to ensure that the conversions from diesel engines to electric motors are as energy efficient as possible. There will be a need to reduce the impact of new demand on the system. The tailored program should include a pump test to be conducted while the diesel engine is still operational, determine the proper size of the electric motor to be installed and ensure the motor is new premium efficiency Express Efficiency Program - strongly endorse removal of the 500 kW limit	This will be considered together with the Distributed Generation program and DRP programs. Express will be open to qualifying customers above 100kW monthly demand.	CEC	
Nonres Rebates	Eliminating the Customer Bid program would be a mistake. There should be opportunities for Energy Service Companies (ESCOs) and third parties to propose focused market- or technology-type approaches to offset some outreach efforts to stimulate market response.	SDG&E will not eliminate the Customer Bid program. Currently SDG&E is going to implement a program very similar to SCE's IDEEA to solicit innovative energy savings programs.	US Military	
Nonres SPC	Target SPC program to small-medium businesses with on-billing financing options.	SDG&E is open to all nonresidential customers for calculated or measured energy savings. SDG&E has proposed an On Bill Financing pilot for 2006.	NAESCO	
Nonres SPC	Recommend that a more comprehensive approach be developed for the nonresidential sector (including a SPC program for small customers) be developed to expand beyond lighting measures.	SDG&E is open to all nonresidential customers for calculated or measured energy savings. SPC is a comprehensive program that incentivizes many measures beyond lighting.	ORA	
Nonres SPC	Program design should consider installation deadlines and availability of funding relative to the customer's planning cycles (e.g., difference between program cycles and fiscal year cycles).	SPC projects incorporate multi-year timelines extending beyond the year the application was submitted.	Qualcomm, U.S. Navy	
Nonres SPC	The various nonres rebates/incentive programs are confusing (no clear distinction). Need to ensure that the SPC and Customer Bid programs do not conflict with each other.	The Bid program is designed for projects or programs with a minimum of 500,000 kWh and the SPC does not.	KEMA, NAESCO, ORA, CEC	
Nonres SPC	During general customer outreach meetings (present various programs), consider ways to bring customers and ESCOs/and other service providers together so that customers can meet potential providers in a general setting. Consider a "facilitator" that will place customers who have been audited with contractors.	SDG&E will continue to work with various ESCO's and service providers to promote this program.	NAESCO	
Nonres SPC	Currently, I am not sure if a defined guideline to add remove a new energy saving measure or equipment to the list of incentives exists. Such addition and removal should be based on market penetration and cost benefit of the proposed item or measure. In the long run, it will help to have such a specific guideline. For example, some States offer incentives on compressor VSDs. However VSD technology applies on selected compressor technologies only, such as the screw types. The reciprocating compressor can not use VSDs by its design. It can be fairly argued that offering incentives on compressor VSDs puts some compressor technologies at a disadvantage since they can compete better without VSDs.	The 2006 SPC itemized list of measure and fixed incentive have been in removed to eliminate overlap with the Express Efficiency program.	SDREO, NAESCO	
Nonres SPC			SDSU (Dr. Beyenne)	

Consolidated List of PAG Recommendations and SDG&E Responses			
Program Area	Recommendation	Responses	PAG Member
NRNC	Consider targeting restaurants for energy efficiency opportunities (e.g., halogen lighting); Need to educate designers and interior decorators.	SDG&E will propose targeted outreach efforts (retrofit and new construction) to address this target customer's energy needs.	UCAN, SDREO
NRNC	There is a need to work with more upstream market participants such as lending institutions to influence the incorporation of energy efficiency in new construction.	SDG&E will incorporate this recommendation into its education & outreach efforts.	NAESCO
NRNC	Consider offering one program to the market to minimize confusion between SBD and Sustainable Communities	SBD is a statewide program. The SCP also includes a residential component. Including the SCP within SBD will create inconsistency within the statewide NRNC program. Integration will be considered if SCP goes statewide or SBD is localized. Marketing will be improved to reduce confusion.	NRDC, Brummitt
NRNC	Consider providing the design incentives through a phased approach rather than waiting until the project has completed. It can take years before the design team receive their incentive.	SDG&E will consider the best way to provide installment payments for design incentives and already offers an option for design teams to do modeling work and provide reports to receive half the incentive upon customer commitment. This approach will continue and be fine-tuned in 2006-08.	Brummitt
NRNC	Provide a higher tier for the New Construction program, so that it continues to push the envelope. Consider a green building component for the higher tiers.	SDG&E will continue to structure its nonres new construction incentives to be progressively higher as the percentage better than code increases, to pull the market to be innovative. The Sustainable Communities program has green building components and offers LEED certification cost-offsetting incentives.	NRDC
NRNC	Just like with the Residential New Construction program, tie this program to the efficiency of the non-shell items that draw power as well. And for multi-family new construction (e.g. condos or apartments) tie to the appliances just like for the residential program.	SDG&E's nonres new construction program addresses all aspects of building energy use, looking beyond code limitations (such as process loads and industrial energy usage that are not controlled by codes). Connections with other programs offer opportunities for efficient equipment rebates; multi-family buildings are covered through a combination of Nonres and Res New Construction programs.	NRDC
NRNC	Provide a higher tier for the New Construction program, so that it continues to push the envelope, and ensure it's consistent with the proposed federal tax incentives. Consider a green building component for the higher tiers.	SDG&E will continue to structure its nonres new construction incentives to be progressively higher as the percentage better than code increases, to pull the market to be innovative. The Sustainable Communities program has green building components and offers LEED certification cost-offsetting incentives.	NRDC
NRNC	Allow commercial tenants who are renovating existing spaces (e.g. new HVAC and lighting, without touching shell) to participate.	SDG&E will continue to work with this type of new construction project and address them in the Savings By Design program (as they have been eligible in the existing program)	NRDC

Consolidated List of PAG Recommendations and SDG&E Responses			
Program Area	Recommendation	Responses	PAG Member
On-bill Financing	Consider offering some type of financing options to residential customers.	SDG&E plans to offer on-bill financing to Multi-Family OWNERS, and will be investigating whether to include other residential customers in a later phase of the program. In the meantime, there is an off-bill financing program already being promoted to residential customers (VolvVIEW Tech).	Kramer; Landmark Brokerage
On-bill Financing	Consider small commercial programs offered in other states.	SDG&E has looked into various financing programs offered in other states and has included "lessons learned" in the OBF proposal.	Hank Ryan
On-bill Financing	Consider on-bill financing options for new construction. I wanted to encourage you to look at this PAYS concept. It's the type of strategy that should be considered alongside on-bill financing because it could require similar types of infrastructure changes.	SDG&E will consider this recommendation for a later phase of the OBF program.	UCAN, SDSU (Dr. Thayer)
On-bill Financing	Explore idea of PAYS (Pay-As-You-Save) in concert with on-bill financing. PAYS is a financing agreement tied to the premises so if an occupant leaves the building, the next occupant takes over. Helps overcome split incentive problem, and has been implemented in New Hampshire. See http://www.paysamerica.org/	SDG&E will be reviewing the PAYS concept as part of Phase 1 implementation of OBF for possible inclusion in a later phase of the program.	NRDC
On-bill Financing	Promote Energy Efficient Mortgages (EEM), and get Jumbo market to offer them.	SDG&E will be reviewing the PAYS concept as part of Phase 1 implementation of OBF for possible inclusion in a later phase of the program.	NRDC
On-bill Financing	Consider the Self-sustaining EE Loan Account for California	SDG&E is exploring how it might include information on EEMs offered by others in its Educational & Outreach program.	NRDC
Partnerships	Consider consolidating partnerships that are similar and can benefit from administration cost efficiencies.	SDG&E will consider this concept during its Phase 1 OBF program.	CEC
Partnerships	There are a wide variety of service providers that can potentially offer program designs that can be more effective.	As a result of ongoing meetings, SDG&E and the various partners recommended consolidation and streamlining of various programs to include Education and Training, Expedite and City facilities.	SDSU (Dr. Thayer)
Partnerships	Work with local governments to use expedited permitting to provide additional incentive for efficiency new construction and remodeling, and have local govt help provide leads to projects.	As a result of this recommendation, SDG&E will offer a school education component as part of a competitive bid process.	SDSU (Dr. Thayer)
Partnerships	Help local governments establish local ordinances that require efficiency upgrades when a building is sold (i.e. CECO and RECO assistance).	The City of SD, the City of Chula Vista and the County of SD in conjunction with SDG&E will offer expedited permitting through each of the local governments current permitting venues.	NRDC
Partnerships		SDG&E will discuss this recommendation with it's local government partners. The partnerships currently have a component for expediting permits if energy efficiency and other DSM efforts are adopted by builders.	NRDC

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Program Area	Recommendation	Responses	PAG Member / Non-PAG Members
Res Appliances	Consider smart appliances for future applications that will work with real time metering.	In 2006, SDG&E will demonstrate "Smart Appliances" in its Advanced Home Renovation program. As more experience with real-time metering is gained and smart appliances become available in the market, SDG&E will consider offering them in either its energy efficiency program portfolio or demand response program portfolio in 2007 and 2008.	UCAN
Res Appliances	Home appliance installation verification process is cumbersome, too lengthy and takes more administrative time than necessary.	In order to address this problem, SDG&E is working with the City of San Diego and the San Diego County Water Authority to convert traditional appliance rebate programs to "point of purchase" under the Residential Rebate program.	SDREO; Qualcomm
Res Appliances	Consider solar water heating as one of the measures for residential energy efficient appliances.	SDG&E is considering offering a comprehensive package of energy efficiency, demand response and renewable information and measures by coordinating different sources of funding to better serve the customer. Currently the Policy Rules require that this measure be cost effective on a "stand alone basis" which it currently is not. The ET program will serve as the vehicle to determine how to make this measure cost effective in this market segment.	ORA; SDREO, UCAN, Qualcomm, other PAG members also support this.
Res Appliances	Consider coordinating or cost-sharing to minimize overheads with water utilities that are also offering water efficiency rebates for energy efficient appliances.	SDG&E in conjunction with the San Diego County Water Authority and the City of San Diego, is proposing a Clothes Washer Voucher Incentive partnership which will leverage existing rebates now offered by all three agencies.	NRDC, CEE
Res Appliances	Legislation that only energy efficient appliances be sold and rebated in California.	Current Title 20 and 24 standards already require that a certain level of efficiency be the minimum requirement for sale and installation in California. These standards are reviewed and updated on a regular basis through the CEC. Utility programs currently provide rebates for appliances and equipment that exceed the current standards.	
Res Appliances	Provide incentives to refrigerator manufacturers to build refrigerators that have coils that are easier to clean to improve performance and efficiency.	SDG&E will work with manufacturers/trade allies to encourage the offering of enhanced coils to customers.	
Res Appliances	Condo conversions are potential opportunities for incorporation of energy efficiency upgrades.	SDG&E in conjunction with the City of SD, the City of Chula Vista, the County of SD, and SDREO will offer a condo conversion expedite/incentive program in 2006 - 2008.	City of SD, SDREO
Res Appliances	Reconsider the "co-pay" aspect to the Limited income program. If doing an entire complex, consider on-bill financing option.	SDG&E's Limited income program will provide "no cost" refrigerator replacement to limited income customers who do not qualify for LIEE. (Section 5)	NAESCO

Consolidated List of PAG Recommendations and SDG&E Responses				
Program Area	Recommendation	Responses	PAG Member	Non-PAG Members
Res Appliances	Consider expanding early retirement or replacement programs to include room AC, central air conditioners, clothes washers, and dishwashers. Also consider expanding to small non-res customers. Mobile homes have a higher proportion of room AC, electric water heating, and electric well pumps. Consider programs to specifically target these opportunities.	SDG&E will solicit bids for an Appliance Recycling program which will offer early retirement and or replacement for room a/c's and central air conditioners.	NRDC	
Res Appliances	Look at aggressive new efficiency levels for dishwashers and clothes washers based on the CEE tiers or the Oregon tax credits.	Residential Rebate Program will increase marketing efforts to hard to reach customers including mobile homes. CEE Tier two are the base levels for rebates offered under the Residential Rebate program.	NRDC	
Res Appliances	Ensure that Energy Star new homes also get Energy Star appliances installed, for example through tiered rebates or welcome kits with rebates etc. (May be good area to bid out)	Beginning in 2006 Residential Rebates will actively promote high efficiency appliance rebates to ES Homeowners.	NRDC	
Res Appliances	Develop Domestic Hot Water Heating Savings Programs	SDG&E will evaluate solar heating options through the Advanced Home Renovation program demonstration in 2006. Future rebate applications will be based on cost effectiveness outcomes.	CEC	
Res Appliances	Address problems relating to EE programs as they affect low-income customers: lack of awareness of EE programs; lack of outreach by gov't, utilities and community groups; lack of education on the value of EE; financial barriers to participating in EE rebate programs.	Residential Rebates customers are offered various options for participating in Energy Efficiency programs and services to include Outreach and Education, Multi-Family Rebates, Limited Income Refrigerator Rebates, and Hard To Reach Lighting. Additionally, these customers are specifically targeted through SDG&E's DAP program.		Greenlining Institute Sierra Club, TURN (also provided a preliminary analysis of SDG&E portfolio based on concept papers)
Res Appliances-HVAC	Suggest having certified and qualified contractor to deliver services and check ups. Ramp up HVAC training to devir these services.	HVAC tune-ups services and duct sealing will be incorporated under the Upstream HVAC/Motors Distributor Rebate program.	ORA, SDSU (Dr. Beyenne),UCAN, SDSU (Dr. Thayer)	
Res Appliances-HVAC	Need to consider whole house approach but higher incentives will be necessary to attract customers. Consider night cooling strategies also. Consider pre-inspection or quality control to ensure the actual delivery of savings and to minimize risks associated with programs such as HVAC diagnostics.	Comprehensive approaches are being addressed under the Multi Family and Affordable Homes programs. SDG&E will incorporate a pre-inspection component in the bid for the Upstream HVAC/Motors Distributor Rebate program.	SD City, UCAN, Brummitt	
Res Appliances-HVAC	Consider offering a home "tune-up" for things like HVAC, analogous to 30,000 mile service for car, every so often.	Rebates for tuneup diagnostics will be offered through the Upstream HVAC/Motors Distributor Rebate program.	NRDC	
Res Appliances-HVAC	For HVAC - provide a higher rebate if done in combination with quality installation	SDG&E will solicit proposals for an Upstream HVAC/Motors Distributor Rebate program which will maximize rebates for customers who perform quality installations.	NRDC	

Consolidated List of PAG Recommendations and SDG&E Responses			
Program Area	Recommendation	Responses	PAG Member / Non-PAG Members
Res Appliances-HVAC	Provide assistance and quality assurance to any homeowner replacing their HVAC system on their own or as part of a remodel to their dwelling subject to the condition that the homeowner seek and receive a building permit	SDG&E will be incorporate quality installations and the need for permits in the HVAC contractor training under the Upstream HVAC/Motors Distributor Rebate program. CEC	CEC
Res Appliances-Lighting	Consider carefully the mix of measures. Diversification beyond lighting important to spread the savings risk factor. Look at other options aside from CFLs for lighting, HVAC, pool pump potential	Additional Specialty lighting will be offered under the Upstream Lighting program. Pool pump potential is addressed under the Residential Rebate program. HVAC potential will be addressed under the Upstream HVAC/Motors Distributor Rebate program.	
Res Appliances-Lighting	Target food and drug stores to stock and sell CFLs. The California Lamp Report 2003 shows that a higher proportion of incandescents relative to CFLs are sold in food and drug stores. (May be good area to bid out.)	SDG&E has expanded targeting efforts to food and drug stores under the Upstream Lighting Program.	NRDC
Res Appliances-Lighting	Expand availability of dimmable CFLs, ceiling fan light kits, and energy efficient recessed cans.	SDG&E has expanded availability of dimmable cfl's and recessed cans under the Upstream Lighting Program.	NRDC
Res Appliances-Lighting	Provide Up or down stream rebates for fans sold with lights with more efficient designs use a central dome approach and use a dedicated pin based lamp of up to 60W and for replacement light kits should be considered.	SDG&E provides rebates for ceiling fan lighting kits as a component of the Upstream Lighting program.	NRDC
Res Appliances-Lighting	Move customers to EE pin based lamp system developed by the California lighting technology center, which uses 26W lamps and delivers the same amount of light.	SDG&E will be increasing rebates for pinned based fixtures under the Upstream Lighting program but will manage the continued marketing of these products as new alternative lighting technologies become widely available (LED lights, cool cathode).	NRDC
Res Appliances	Consider shifting more budget dollars to MF sector compared to SF appliances since more cost effective and more potential.	SDG&E is constantly streamlining its budget through the planning process.	UCAN, SDSU (Dr. Thayer)
Res Appliances	Consider increasing the number of pool pump/motor rebates in the Residential Rebate Program.	SDG&E increased the quantity of pool pump/motor rebates available to customers.	UCAN, SDSU (Dr. Thayer)
Res Audit/Education	Recommendations for audit programs/education and information components: (a) offer "opt out" or "opt in" options to customers; (b) utility bill could provide comparison information (e.g., individual usage relative to the average in the area); (c) more effective use of the bill to provide better information	SDG&E is offering a bill comparison under the Home Energy Consumption Tool / HEES program.	U.S. Military, CEC, UCAN, NRDC
Res Audit/Education	School programs could be effective in educating children and children in turn influencing their parents	SDG&E will be soliciting proposals for a school/education program under its Competitive Bid programs.	Alliance to Save Energy
Res Audit/Education	Focus information at point-of-purchase where customers are making purchase decisions	SDG&E will incorporate P.O.P marketing under its program strategy in the 2006 Education & Outreach program.	SDREO, City of SD
Res Audit/Education	Experiment with local community groups to do neighborhood sweeps that do door-to-door customer outreach, education and installation of no-cost/low cost measures (e.g., clean refrigerator coils, pipe wrapping). This type of outreach may be more effective than direct mail and advertising.	SDG&E will also pursue coordination with local organizations to identify opportunities to conduct energy and water conservation "neighborhood sweeps"	UCAN

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Program Area	Recommendation			
Res Audit/Education	Recommend development of strong education programs (e.g., K through 12 school education programs) to educate children to develop environmental ethic and pass on the information to their parents	SDG&E will be soliciting proposals for a school/education program under its Competitive Bid programs.	SDREO	
Res Audit/Education	Concern about discontinuing mail-in audit, need to insure that hard-to reach customer needs are addressed.	SDG&E will maintain a "by request only" component under the Home Energy Consumption Tool/HEES program.	SDREO	
Res Audit/Education	The recommended web based comparative tool of energy use can be useful if there is some sort of recognition or reward that follows. Otherwise, the average energy use of the neighborhood will be targeted by the users. My concern is that it may relax those who use below average kWh.	SDG&E may implement a reward system to include various financial and or non-financial incentives under the HECT program.	SDSU (Dr. Beyenne)	
Res Audit/Education	Take advantage of the utility's contact with customers when they hookup for service. Consider requiring an audit (and follow-up with rebates) and requiring customers who opt out to pay a fee (i.e. a fee-bate model). Track whether a home or business has been audited and only require an audit every so often.	SDG&E will offer a new customer kit in Education and Training under the competitive bid program.	NRDC	
Res Audit/Education	Provide all new hookups with a welcome kit with rebates and information on programs. Have utility rep provide information about programs by phone when customer calls in.	SDG&E will offer a new customer kit in Education and Training under the competitive bid program.	NRDC	
Res Audit/Education	Provide benchmarking information on customer bills, so they can see if they have higher use than average	The Home Energy Efficiency Consumption Comparison Tool will provide this information.	NRDC	
Res Audit/Education	Expand use of in-store promotion and information at point of purchase. Could include representatives at store home improvement events on in-store kiosks to provide information to customers about efficiency and what particular products to buy.	P.O.P. outlets have been expanded under the Residential Rebate component.	NRDC	
Res Lighting Turn-in	Consider promoting other technologies such as LED lights, incorporating with a school outreach	SDG&E will incorporate alternatives such as LED holiday lighting in its 2006-2008 Turn In program.	Energy Division	Alliance to Save Energy
Res Overarching	Consider time-of-sale inspections, efficient mortgages and a rating system for home buyers (HERS) Need long-term strategic plans for various measures or end-uses, for example: Strategy to take over the lighting market with CFLs; need to work on the availability of pin-based CFLs and replacement ballasts; plan for solid-state lighting and dimmable CFLs, Residential HVAC, Solar hot water heating	SDG&E has identified Time-of-Sale inspections in the Competitive Bid category. SDG&E has developed long-term strategic goals and objectives for several end uses including lighting, HVAC and motors. SDG&E will continue to actively participate in statewide teams interested in pursuing advances in these end uses.	ORA	Sierra Club, Landmark Brokerage
Res Overarching	Consider direct install implementation approach particularly for the residential and other hard-to-reach market where cost sharing is unlikely. Comprehensive and qualified contractors may be a cost effective approach to these sectors. SPC may be a means to handle this implementation approach.	SDG&E will consider this implementation approach in its portfolio development for residential sector. May also be a potential area for the competitive bid portion of its portfolio. SDG&E is proposing the Limited Income Ref program which addresses some of the concern. Currently SDG&E uses the direct install approach for its small commercial customers (Small Business EZ Turnkey).	NRDC	NAESCO, ORA,UCAN, SDSU (Dr. Thayer), Energy Division
Res SPC				

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Program Area	Recommendation	Responses	PAG Member	Non-PAG Members
RNC	Investigate how to leverage the building permitting process to incorporate energy efficiency applications and expedite the permitting process for those who are building beyond Title 24 standards. Work with cities to assist in the process (expedited permitting). Recommend development of local ordinances in San Diego County to mandate standards above Title 24 & 24.	SDG&E has worked with different local agencies in the past through its Local Government Initiatives (working with SD REO) on this issue and also to incorporate energy efficiency through code changes or their energy strategies. SDG&E will work with local agencies on how best to encourage builders/contractors to incorporate energy efficiency in their buildings. One of the proposed strategies is the expedited permit processing.	NRDC, NAESCO, Brummitt	
RNC	Consider opportunities in new high rise residential market.	SDG&E has a multifamily component in its RNC program.	TSNC Architects	
RNC	If the current RNC program is not going to be cost effective, consider targeting specific strategies, e.g., all systems strategies, alternative building materials or promote specific technologies that we need to promote. Consider packaging renewable options also. Consider shifting the budget in favor of the Advanced Home program if maintaining traditional program.	The SDG&E RNC program will incorporate elements that recognize energy savings based on T24 modeling. This includes prescriptive measures taking buildings above T24 minimum requirements as well as buildings modeled in the performance methodology exceeding T24 by 15%. Other design approaches including demonstrations and pilot projects including emerging/underutilized technologies will also be included in the Advanced Home Program.	UCAN, NAESCO, CEE, SDSU (Dr. Thayer, Dr. Beyenne)	
RNC	Need to consider a balanced approach between promoting performance base for the new T24 standards (traditional program) and Advanced Home program.	The SDG&E RNC program will incorporate elements that recognize energy savings based on T24 modeling. This includes prescriptive measures taking buildings above T24 minimum requirements as well as buildings modeled in the performance methodology exceeding T24 by 15%. Other design approaches including demonstrations and pilot projects including emerging/underutilized technologies will also be included in the Advanced Home Program.	Brummitt	
RNC	Consider design incentives that tries to eliminate A/C systems where not necessary, particularly in Downtown MF buildings. However, need to consider that these systems are put in place to mitigate other issues, e.g., noise, allergies, etc so should still consider recommending the most efficient equipment.	Advanced Home Program design options would support this type of building plan.	Energy Division, Brummitt, SDREO	
RNC	There are tremendous energy saving and renewable opportunities in new construction. This growing housing market offers even a greater opportunity to build homes and buildings with very little grid energy need. I think the interest will be much higher if incentives are tied to cost of housing. For example, since house prices are high = down-payments too, the buyer will be more motivated and opt for a PV if the incentive goes towards assisting in the down-payment.	The Advanced Home Program is exploring integration of different DSM options including DRP, AMI and renewable technologies. Program incentive development will be considered further as more information on the Advanced Home Program is gathered.	SDSU (Dr. Beyenne)	
RNC	Consider a program targeted at manufactured homes. Consider leveraging the Northwest Energy Efficiency Alliance's program.	Manufactured housing is not governed by T24. The applicability of the program to manufactured housing continues to be reviewed.	NRDC	
RNC	Work with the CEC to structure incentives for photovoltaics that are tied to how efficiency a home is beyond T24.	Codes and Standards and Emerging Technology teams have identified this as an opportunity and are in discussion with the CEC.	NRDC	

Consolidated List of PAG Recommendations and SDG&E Responses			
Program Area	Recommendation	Responses	PAG Member
RNC	If possible, continue to use the Energy Star brand. Keep a placeholder in the program proposal to use the brand if discussions with Energy Star are successful.	To the extent possible, SDG&E plans to continue the CA Energy Star New Homes Program. Discussions continue with the EPA on their new requirements.	NRDC
			Non-PAG Members

