

Proceeding No.: A.10-07-
Exhibit No.: _____
Witness: William G. Saxe

Application of San Diego Gas & Electric
Company (U 902 E) for Approval of its
Proposals for Dynamic Pricing and Recovery
of Incremental Expenditures Required for
Implementation.

**PREPARED DIRECT TESTIMONY OF
WILLIAM G. SAXE
CHAPTER 3
SAN DIEGO GAS & ELECTRIC COMPANY**

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA
July 06, 2010**



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1 PREPARED DIRECT TESTIMONY OF

2 WILLIAM G. SAXE

3 CHAPTER 3

4 I. OVERVIEW AND PURPOSE

5 The purpose of my testimony is to propose optional electric time-variant commodity rates
6 for San Diego Gas & Electric Company’s (SDG&E) residential customers. Specifically, my
7 testimony proposes the following optional Electric Energy Commodity Cost (EECC) rates for
8 residential customers:

- 9 • Optional EECC PeakShift at Home for residential customers (EECC-PSH or PSH);¹ and
- 10 • Optional EECC TimeOfDay (TOD) for residential customers (EECC-DR-TOD-C).²

11 These two time-differentiated commodity rate options are opt-in rates; therefore,
12 residential customers must affirmatively elect to switch from their current rate structure to one of
13 these optional rate structures. Both PSH (which is a dynamic pricing rate) and EECC-DR-TOD-
14 C will be available to residential customers after deployment of Advanced Metering
15 Infrastructure (AMI) meters (*i.e.*, smart meters), as approved by the California Public Utilities
16 Commission (Commission) for SDG&E in Decision (D.) 07-04-043. Smart meters will provide
17 residential customers with energy use information on hourly intervals and thus, deployment of
18 these meters establishes the foundation for offering residential customers time-variant
19 commodity rate options.

20 In support of the Commission’s goal to offer dynamic pricing rates to all customer
21 classes, SDG&E is proposing the PSH rate option for residential customers in this Application.
22 In addition, SDG&E is proposing EECC-DR-TOD-C as another commodity rate option available

¹ PeakShift refers to what is commonly known as Critical Peak Pricing (CPP) rates. SDG&E is proposing to use the term “PeakShift at Home” (PSH) to refer to the opt-in dynamic pricing rate being proposed for residential customers in this Dynamic Pricing Application (Application).

² TimeOfDay (TOD) refers to what is commonly known as Time-of-Use (TOU) rates. The term TOD will be used in my testimony when referring to TOU-type pricing.

1 to residential customers. Adoption of PSH and EECC-DR-TOD-C rates will provide SDG&E's
2 residential customers with electric commodity rate options that reflect more accurate price
3 signals compared to the flat commodity rates that most residential customers pay today.
4 Introduction of these time-variant commodity rate options, including the online tools and
5 resources to support these rates, will enable residential customers to better manage their energy
6 bills by reducing electricity usage when energy prices are high, along with improving system
7 reliability and lowering system costs by decreasing usage during high system peak days.

8 In addition, my testimony proposes reductions to the Peak-Time-Rebate (PTR) program
9 credit levels in 2013, the year PSH is scheduled to be implemented, to transition residential
10 customers to the PSH rate. Finally, my testimony presents the incremental Customer Service-
11 related direct costs needed to implement and manage PSH for which SDG&E is seeking recovery
12 in this Application.

13 My testimony is organized as follows:

- 14 • **Section II - Background:** describes the dynamic pricing rates/programs currently
15 adopted for SDG&E customers and recent Commission/legislative direction issued on
16 time-variant pricing for residential customers;
- 17 • **Section III - Residential Dynamic Pricing and Time-Variant Rates/Programs**
18 **Roadmap:** describes the various dynamic pricing and time-variant rates/programs
19 SDG&E has proposed or plans to propose and implement for residential customers in
20 the future, and provides a projected timeline for implementing these rates;
- 21 • **Section IV – Applicability for Optional PeakShift at Home (PSH) and**
22 **Residential TimeOfDay (EECC-DR-TOD-C) Commodity Rate Options:** states
23 which residential customers are eligible to take service on PSH or EECC-DR-TOD-
24 C;

- 1 • **Section V – PeakShift at Home (PSH) Tariff Provisions:** presents and discusses
2 key PSH tariff provisions;
- 3 • **Section VI – Residential TimeOfDay (EECC-DR-TOD-C) Tariff Provisions:**
4 presents and discusses key EECC-DR-TOD-C tariff provisions;
- 5 • **Section VII – Peak-Time-Rebate (PTR) Tariff Provisions:** presents the proposal
6 to reduce PTR credit levels in 2013;
- 7 • **Section VIII – Close Schedules DR-TOU and DR-TOU-DER:** presents the
8 proposal to close Schedules DR-TOU and DR-TOU-DER to new customers effective
9 on the date EECC-DR-TOD-C is implemented;
- 10 • **Section IX – Incremental PeakShift at Home (PSH) Customer Service-Related**
11 **Costs:** presents the estimated incremental Customer Service-related direct costs to
12 implement and manage PSH, including outreach and education costs, proposed for
13 recovery in this Application;
- 14 • **Section X – Summary of Recommendations:** provides a summary of
15 recommendations;
- 16 • **Statement of Qualifications:** presents my qualifications; and
- 17 • **Attachment A – PeakShift at Home (PSH) Outreach and Education Plan:**
18 presents the PeakShift at Home (PSH) Outreach and Education Plan.

19 **II. BACKGROUND**

20 In D.08-02-034, the Commission’s decision approving the Settlement Agreement in
21 SDG&E’s 2008 General Rate Case (GRC) Phase 2 proceeding, dynamic pricing rates/programs
22 were adopted for SDG&E customers. Specifically, the Commission adopted: (a) a new CPP rate
23 as the default rate (CPP-D) for medium and large non-residential customers with demand equal
24 to or greater than 20 kilowatts (kW); and (b) the PTR program for small customers (*i.e.*,

1 residential customers and non-residential customers with demand less than 20 kW).^{3,4} CPP-D is
2 a time-variant dynamic pricing rate with a significantly higher price during CPP event hours (11
3 a.m. to 6 p.m.) to encourage customers to reduce load during these hours of high system peak
4 days when CPP events are triggered. PTR is a dynamic pricing program that provides a bill
5 credit to customers for each kilowatt-hour (kWh) reduction in energy consumption below an
6 established customer-specific reference level during the high system peak days when PTR events
7 are called, but no penalties are imposed for consumption during these events (*i.e.*, a “carrot-only”
8 type program).

9 Time-variant pricing such as CPP rates cannot currently be implemented as the default
10 rate for residential customers because Assembly Bill (AB) 1X, signed into law in 2001, requires
11 the total rates for residential usage up to 130 percent of the baseline usage to be capped. In light
12 of the AB1X rate cap requirements, SDG&E proposed PTR to introduce the concept of dynamic
13 pricing (*i.e.*, the benefits of reducing energy usage during high system peak days) to residential
14 customers until such time that a dynamic pricing rate such as CPP is adopted for these
15 customers.

16 In D.08-07-045, the Commission’s *Decision Adopting Dynamic Pricing Timetable and*
17 *Rate Design Guidance for Pacific Gas and Electric Company*, a timetable was adopted
18 specifying when Pacific Gas & Electric Company (PG&E) would be required to propose and
19

³ See D.08-02-034 (mimeo), p. 19.

⁴ Pursuant to D.09-09-036, the Commission’s decision adopting the Settlement Agreement in SDG&E’s Rate Design Window (RDW) Application (A.) 08-11-014, PTR was eliminated for small non-residential customers (Attachment A of D.09-09-036, Appendix A, p. 6 of 20, term 11). As discussed in the direct testimony of SDG&E witnesses Joseph S. Velasquez (Chapter 1) and Glen C. Breed (Chapter 2), SDG&E is proposing a default CPP rate referred to as PeakShift at Work rate (PSW) for small non-residential customers in this Application.

1 implement certain dynamic pricing rates for its customers, including an optional CPP rate with a
2 TOD rate design structure for residential customers.^{5,6} The Commission stated that dynamic
3 pricing rates can only be offered to residential customers today on a voluntary basis; however, if
4 circumstances change to allow dynamic pricing rates to be offered to residential customers on a
5 default basis before AB1X rate protection is eliminated, the Commission would re-examine the
6 issue of implementing default dynamic pricing rates for residential customers.⁷ The decision did
7 not require SDG&E or Southern California Edison Company (SCE) to adhere to the timetable or
8 rate design guidance adopted in the PG&E decision but rather recommended that SDG&E and
9 SCE take the decision into consideration when proposing rates for its customers.⁸ Subsequently,
10 the Commission issued D.09-08-028 in SCE's 2009 GRC Phase 2 proceeding, directing SCE to
11 follow the rate design guidance established in D.08-07-045. SCE is required to file dynamic
12 pricing rates for its customers, including an optional CPP rate with a TOD rate design structure
13 for residential customers, no later than September 1, 2010.⁹

14 On October 11, 2009, Senate Bill (SB) 695 was signed by the Governor, which added
15 Section 745 to the Public Utilities Code (PUC). Section 745 of the PUC allows the Commission
16 to approve time-variant pricing (*e.g.*, CPP or TOD rates) with bill protection on a default basis
17 for residential customers as early as January 1, 2013.¹⁰ In addition, Section 745 states that the
18 Commission, at any time, can adopt optional time-variant pricing for residential customers.¹¹

⁵ See D.08-07-045 (mimeo), p. 38 and Ordering Paragraph 5, p. 98.

⁶ D.10-02-032 issued on February 25, 2010, approved the dynamic pricing type rates (Peak Day Pricing or PDP rates) proposed by PG&E in its 2009 RDW, pursuant to D.08-07-045, including a PDP rate with a TOD rate design structure for residential customers (Ordering Paragraph 2, p. 180).

⁷ See D.08-07-045 (mimeo), p. 37.

⁸ See *Id.* p. 83.

⁹ See D.09-08-028 (mimeo) pp. 45-47.

¹⁰ See PUC Section 745(b)(1). Time-variant pricing may be offered on a default basis without bill protection beginning January 1, 2014, pursuant to PUC Section 745(b)(2).

¹¹ See PUC Section 745(c).

1 Given this statutory authority as well as the Commission's goal to move all customers
2 towards dynamic pricing rates, as expressed in D.08-07-045, SDG&E is hereby proposing the
3 optional PSH rate for residential customers in this Application.

4 **III. RESIDENTIAL DYNAMIC PRICING AND TIME-VARIANT**
5 **RATES/PROGRAMS ROADMAP**

6 Most SDG&E residential customers currently pay flat electric commodity rates, which,
7 unlike dynamic pricing and time-variant rates/programs, do not provide customers with an
8 incentive to reduce energy usage during high cost hours. The billing of dynamic pricing and
9 time-variant rates/programs will be made possible by the deployment of smart meters that will
10 measure and report residential customer energy usage on hourly intervals. For this reason,
11 SDG&E has proposed or plans to propose and implement the following dynamic pricing and
12 time-variant rate/program options for residential customers: (a) PTR (as currently adopted for
13 residential customers except for the change to the PTR credit levels in 2013 as proposed in this
14 Application); (b) optional PSH (as proposed in this Application); (c) optional EECC-DR-TOD-C
15 (as proposed in this Application); (d) default PSH; and (e) optional Real-Time Pricing (RTP).
16 Each time-variant commodity rate option is described below, along with the tentative timeline
17 for implementing these rate options:

18 **A. Peak-Time-Rebate (PTR)**

19 SDG&E proposed, and the Commission adopted in D.08-02-034, PTR as a dynamic
20 pricing program for residential customers because the AB1X rate cap requirement prevented
21 time-variant dynamic pricing rates such as PSH from being implemented as a default rate for
22 residential customers. Residential customers that are individually metered by SDG&E will
23 automatically be enrolled in the PTR program as soon as smart meters are deployed and PTR
24 billing on those meters is possible, which is projected to occur in 2011. PTR is being
25 implemented as a transitional mechanism until a dynamic pricing rate can be implemented for

1 residential customers. For this reason, as discussed in Section VII of my testimony, SDG&E
2 proposes reductions to the PTR credit levels in 2013, the year PSH is scheduled to be
3 implemented, to transition residential customers from PTR to PSH.

4 **B. Optional PeakShift at Home (PSH)**

5 SDG&E is proposing PSH as an optional dynamic pricing rate for residential customers
6 in this proceeding for two reasons. First, as stated earlier, the Commission adopted dynamic
7 pricing guidelines for PG&E in D.08-07-045, and expressly encouraged both SDG&E and SCE
8 to propose an optional dynamic pricing rate with a TOD rate design structure for residential
9 customers consistent with the optional dynamic pricing requirement adopted for PG&E. Second,
10 as indicated above, SB 695 allows the Commission to implement time-variant pricing on a
11 default basis for residential customers, including default dynamic pricing rates, as early as 2013.
12 Because residential customers are less familiar with the concept of time-variant energy pricing,
13 SDG&E believes educating these customers on this concept will take time. Thus, by
14 implementing PSH today SDG&E can begin the process of exposing residential customers to the
15 concept of time-variant pricing in preparation for implementing PSH as the default rate for these
16 customers in the future. Furthermore, implementing the optional PSH rate, including the
17 information technology system enhancements and applications needed to support this rate,¹²
18 should provide for a more seamless transition to a default PSH rate for the residential class in the
19 future. For this reason, SDG&E is proposing PSH to satisfy the Commission's objective to have
20 an optional dynamic pricing rate available for residential customers and to set the foundation for
21 educating SDG&E's residential customers on time-variant pricing. If adopted, PSH will be
22 available to residential customers as soon as smart meters are installed and PSH billing on those

¹² Information technology system enhancements and applications needed to support the PSH rate are addressed in the direct testimony of SDG&E witness Daniel J. Shulman (Chapter 5).

1 meters is possible, which is projected to occur by the summer of 2013. The proposed PSH tariff
2 provisions are provided in Section V of this testimony.

3 **C. Optional Residential TimeOfDay (EECC-DR-TOD-C)**

4 SDG&E is proposing EECC-DR-TOD-C as a new optional TOD rate in this proceeding
5 for two reasons. First, unlike certain existing optional TOD rates that are only available to a
6 small subset of the residential class (*e.g.*, Schedule DR-SES is only available to customers with
7 solar energy systems, EV schedules are only available to customers with Electric Vehicles, and
8 DR-TOU-DER is only available to customers that have qualifying operational distributed energy
9 resources), EECC-DR-TOD-C will be available to all residential customers that are individually
10 metered by SDG&E. Also, Schedules DR-TOU, which is available to all individually metered
11 residential customers, and DR-TOU-DER, will continue to have a 4-tier total rate structure
12 whereas customers that take service under EECC-DR-TOD-C will have a 3-tier TOD total rate
13 structure, as explained in the direct testimony of SDG&E witness Robert W. Hansen (Chapter 4).
14 The proposed modified total rate structure under EECC-DR-TOD-C and PSH should make it
15 easier for customers to understand the savings that can be realized by shifting usage from on-
16 peak to either semi-peak or off-peak hours. EECC-DR-TOD-C is being proposed as an option
17 for customers who have an interest in paying time-variant pricing but are not ready to take
18 service on a dynamic pricing rate such as PSH. Risk-averse customers may wish to pay higher
19 TOD energy prices under EECC-DR-TOD-C compared to PSH in order to avoid being charged
20 significantly higher energy prices during high system peak days when PSH events are called
21 (*i.e.*, ReduceYourUse Days). Customers taking service on EECC-DR-TOD-C will continue to
22 be offered incentives under PTR to provide demand response during high system peak days.
23 Second, the introduction of EECC-DR-TOD-C, like PSH, will begin the process of exposing
24 customers to the time-variant pricing concept in preparation for introducing PSH or TOD as the
25 default rate for residential customers in the future. If adopted, EECC-DR-TOD-C will be

1 available to residential customers as soon as smart meters are installed and TOD billing on those
2 meters is possible, which is projected to occur by the summer of 2013. The proposed EECC-
3 DR-TOD-C tariff provisions are provided in Section VI of this testimony.

4 **D. Default PeakShift at Home (PSH)**

5 While not proposed in this Application, SDG&E will consider proposing a PSH rate as
6 the default rate for residential customers in a future rate design application. As stated earlier, the
7 signing of SB 695 allows the Commission to consider implementing time-variant pricing such as
8 PSH or TOD as the default rate for residential customers as early as 2013. Although the ultimate
9 goal might be to default residential customers to a PSH rate, the timing of when a PSH rate
10 should be implemented as the default rate for residential customers does not need to be decided
11 at this time. SDG&E believes the knowledge and experience it gains from introducing PTR,
12 PSH and EECC-DR-TOD-C to residential customers, along with implementing PSW as the
13 default rate for small non-residential customers, will provide valuable information for
14 determining the timing and transition plan to implement a default PSH rate for residential
15 customers. Defaulting residential customers to a PSH rate will be a big endeavor and thus,
16 SDG&E believes it is important to leave open the possibility that residential customers should
17 first be defaulted to a TOD rate before being defaulted to a PSH rate.

18 **E. Optional Real-Time-Pricing (RTP)**

19 Consistent with the optional RTP rate requirements adopted for PG&E¹³ and SCE,¹⁴
20 SDG&E is tentatively planning to file optional RTP rates for all customer classes, including
21 residential customers, in its 2012 GRC Phase 2 Application, or alternatively, in a future rate
22 design application. The earliest date that optional RTP rates will be available to customers is as

¹³ See D.08-07-045 (mimeo), Ordering Paragraph 7, p. 99.

¹⁴ See D.09-08-028 (mimeo), p. 47.

soon as smart meters are installed and RTP billing on those meters is possible, which is projected to occur no sooner than the summer of 2013.

F. Residential Dynamic Pricing and Time-Variant Rates/Programs Timeline

Table WGS-1 below presents the tentative timeline for implementing PTR, Optional EECC-DR-TOD-C, Optional PSH, Default PSH or Default EECC-TOD, and Optional RTP for residential customers.

TABLE WGS-1: RESIDENTIAL DYNAMIC PRICING AND TIME-VARIANT RATES/PROGRAMS TIMELINE ESTIMATED IMPLEMENTATION DATES					
Tariff	Rate Design Application	2011	2012	2013	2014
PTR	2008 GRC Phase 2 filed on January 31, 2007 and approved in D.08-02-034.	PTR will begin for customers once their smart meter is installed and PTR billing is possible on their meter.		Reduction in PTR incentive credits.	
Optional EECC-DR-TOD-C	2010 Dynamic Pricing Application filed on July 6, 2010.			EECC-DR-TOD-C available as an option for customers once their smart meter is installed and TOD billing is possible on their meter.	
Optional PSH	2010 Dynamic Pricing Application filed on July 6, 2010.			PSH available as an option for customers once their smart meter is installed and PSH billing is possible on their meter.	
Default PSH or Default EECC-TOD	Future Rate Design Application				Earliest date Default PSH or even a Default TOD rate considered for implementation.
Optional RTP	2012 GRC Phase 2 Application or Future Rate Design Application			Earliest date RTP available as an option for customers once their smart meter is installed and RTP billing is possible on their meter.	

IV. APPLICABILITY FOR OPTIONAL PEAKSHIFT AT HOME (PSH) AND RESIDENTIAL TIMEOFDAY (EECC-DR-TOD-C) COMMODITY RATE OPTIONS

Table WGS-2 below identifies the applicability for PSH and EECC-DR-TOD-C. The proposed PSH and EECC-DR-TOD-C commodity rate options are available to residential service customers that are individually metered and take bundled service from SDG&E (*i.e.*, customers

that purchase their electric commodity from SDG&E).¹⁵ The rate options are not available to customers taking service on one of SDG&E’s multi-family rate schedules (Schedules DM, DS, DT, and DT-RV) where a single meter measures the combined energy of multiple tenants.

Customers choosing to take service on PSH or EECC-DR-TOD-C can also participate in demand response programs such as SDG&E’s Summer Saver Program, as long as the customer does not receive more than one incentive payment for the same kWh reduction. For this reason, customers choosing to take service on PSH will also be choosing to opt-out of the PTR program since participation on both PSH and PTR would provide customers with double incentives for the same kWh reduction.

TABLE WGS-2: APPLICABILITY OF EECC-PSH AND EECC-DR-TOD-C COMMODITY RATES

Service Type	Existing Tariff/Program	EECC-PSH	EECC-DR-TOD-C
Domestic Service	Schedules DR (includes DR-LI rates)	Yes	Yes
Multi-Family Service	Schedules DM, DS, DT and DT-RV	No	No
Domestic Time-Of-Use (TOU) Service	Schedules DR-TOU, DR-TOU-DER, DR-SES, EV-TOU, EV-TOU-2 and EV-TOU-3	Yes	Yes
Net Energy Metering	Schedule NEM	Yes	Yes
Non-Bundled Service	Schedules DA (Direct Access) and CCA (Community Choice Aggregation)	No	No
Transitional Bundled Service	Schedule EECC-TBS	No	No
Summer Saver Program	AC Cycling Program	Yes	Yes
Peak-Time-Rebate Program	Schedule PTR	No	Yes

Notes:
 (1) Yes - Customer taking service under the identified existing tariff/program is allowed to take service on the proposed optional commodity rate (EECC-PSH or EECC-DR-TOD-C).
 (2) No - Customer taking service under the identified existing tariff/program is not allowed to take service on the proposed optional commodity rate (EECC-PSH or EECC-DR-TOD-C).

V. PEAKSHIFT AT HOME (PSH) TARIFF PROVISIONS

The tariff provisions of the PSH program are very similar to the provisions of CPP-D and proposed PSW. The PSH provisions will be detailed in a newly-created PSH tariff schedule.

The key tariff provisions of PSH are discussed below:

A. PSH Applicability

As shown in Table WGS-2, PSH is applicable to bundled service customers that are individually metered by SDG&E. For instance, a customer taking service under DR (Schedule

¹⁵ Residential customers not taking bundled service such as customers taking direct access (DA), Community Choice Aggregation (CCA), or transitional bundled (EECC-TBS) service will need to switch to bundled service to be eligible for PSH or EECC-DR-TOD-C commodity rates.

1 DR for Utility Distribution Company (UDC) rates¹⁶ and Schedule EECC-DR for commodity
2 rates), could choose to take commodity service on PSH. This customer will be billed commodity
3 rates on PSH and UDC rates under a new TOD rate schedule (DR-TOD-C), as presented in the
4 direct testimony of Hansen (Chapter 4). The proposed new TOD UDC rate (DR-TOD-C)
5 reflects a modified rate structure that provides PSH customers with similar AB1X and SB695
6 rate capping benefits. Although optional rates such as PSH are not necessarily required to
7 include AB1X and SB695 benefits, SDG&E believes it is important for the PSH rate structure to
8 contain these rate capping benefits in order for PSH to be a legitimate commodity rate option for
9 low-use residential customers and thus, be applicable to a larger number of customers.

10 **B. PSH Rate Design**

11 The direct testimony of Hansen (Chapter 4) presents the proposed PSH total rate design,
12 which consists of Schedule DR-TOD-C UDC rates, Schedule EECC-PSH (PSH) commodity
13 rates, and Schedule DWR-BC Department of Water Resources bond charges. Consistent with
14 the Commission's dynamic pricing rate design guidance adopted for PG&E and SCE (D.08-07-
15 045 and D.09-08-028, respectively), PSH includes a TOD rate structure. The PSH rate structure
16 consists of TOD energy rates that vary by time period (on-peak, semi-peak and off-peak) and by
17 season (summer and winter). In addition, during critical peak hours (11 a.m. to 6 p.m.) when
18 PSH events are called (*i.e.*, ReduceYourUse Days), PSH energy rates will be significantly higher
19 by the amount of the PeakShift Period Adder.¹⁷ During ReduceYourUse Days, PSH customers
20 will pay both the applicable TOD energy rate and the PeakShift Period Adder during critical
21 peak hours. The proposed PSH commodity rates are presented in Table WGS-3 below.

¹⁶ UDC rates recover non-commodity costs such as transmission and distribution costs to deliver electric commodity to customers.

¹⁷ Unlike the default CPP-D rate for medium and large non-residential customers, the opt-in PSH rate does not include a capacity reservation charge (CRC) component, which provides a hedge against ReduceYourUse Day pricing.

TABLE WGS-3: PSH COMMODITY RATES	
	EECC-PSH Rate
	<u>\$/kWh</u>
PeakShift Period Adder	\$0.91000
Summer	
On-Peak	\$0.08500
Semi-Peak	\$0.07146
Off-Peak	\$0.05570
Winter	
Semi-Peak	\$0.06899
Off-Peak	\$0.06421

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The PSH rate is designed to provide customers with more accurate energy price signals to encourage reductions in energy usage during higher priced hours. The main objective of the PSH rate is to encourage demand response during high system peak days when ReduceYourUse Days are triggered. Customers will pay significantly higher energy rates during the relatively few critical peak hours of ReduceYourUse Days in exchange for paying lower energy rates during all remaining hours of the summer period. The other objective of the PSH rate structure is to encourage customers to use less energy during peak hours year-round by charging higher energy rates during on-peak and semi-peak hours compared to off-peak hours.

Since PSH is an opt-in rate, SDG&E is proposing that the PeakShift Period Adder be set at its full cost-based level of \$0.91 per kWh to be competitive with the demand response incentives provided under the PTR program. Table WGS-4 below provides support for setting the PeakShift Period Adder at its full cost-based level by comparing the bill savings from reducing one kWh during a weekday summer PTR/PSH event under both PSH and PTR. What this table shows is that the PeakShift Period Adder needs to be set at its full cost-based level to encourage customers to move from PTR to PSH. The top comparison in the table shows that PSH, even with the PeakShift Period Adder set at its full cost-based level, will have a difficult if not impossible time competing with the current PTR credit levels of \$0.75 per kWh and \$1.25

1 per kWh for customers without and with qualifying enabling technology, respectively, which
 2 supports the need to reduce the PTR credit levels when PSH is introduced. The bottom
 3 comparison in the table shows that PSH, on paper at least, can compete with the proposed
 4 reduced PTR credit levels of \$0.50 per kWh and \$0.75 per kWh for customers without and with
 5 qualifying enabling technology, respectively. However, the question that remains to be
 6 answered is whether these rates provide enough of an incentive to encourage customers to take
 7 on the risk of moving from the “carrot only” feature of PTR to the “carrot and stick” feature of
 8 PSH. Only time will tell if the PTR credit levels need to be reduced further to encourage
 9 participation on PSH. The proposal to reduce the PTR credit levels in 2013 is discussed further
 10 in Section VII, PTR Tariff Provisions.

TABLE WGS-4: DEMAND RESPONSE INCENTIVES					
(Commodity Incentive for Reducing 1 kWh during Summer Weekday Non-Holiday PSH/PTR Events)					
PSH versus PTR with Adopted Credit Levels					
<u>EECC Rate Schedules</u>	<u>Demand Response (kWh Reduction)</u>	<u>EECC Price (\$/kWh)</u>	<u>DR Incentive PeakShift Period Adder or PTR Credit</u>	<u>Bill Savings</u>	
PSH	1 kWh	\$0.08500	\$0.91000	(\$0.99500)	
DR-TOD-C with PTR (non-Tech)	1 kWh	\$0.16464	\$0.75000	(\$0.91464)	
DR with PTR (non-Tech)	1 kWh	\$0.08978	\$0.75000	(\$0.83978)	
DR-TOD-C with PTR (Tech)	1 kWh	\$0.16464	\$1.25000	(\$1.41464)	
DR with PTR (Tech)	1 kWh	\$0.08978	\$1.25000	(\$1.33978)	
PSH versus PTR with Proposed Reduced Credit Levels					
<u>EECC Rate Schedules</u>	<u>Demand Response (kWh Reduction)</u>	<u>EECC Price (\$/kWh)</u>	<u>DR Incentive PeakShift Period Adder or PTR Credit</u>	<u>Bill Savings</u>	
PSH	1 kWh	\$0.08500	\$0.91000	(\$0.99500)	
DR-TOD-C with PTR (non-Tech)	1 kWh	\$0.16464	\$0.50000	(\$0.66464)	
DR with PTR (non-Tech)	1 kWh	\$0.08978	\$0.50000	(\$0.58978)	
DR-TOD-C with PTR (Tech)	1 kWh	\$0.16464	\$0.75000	(\$0.91464)	
DR with PTR (Tech)	1 kWh	\$0.08978	\$0.75000	(\$0.83978)	

11 Note: Schedule EECC-DR rates shown are rates effective 5/01/10.

12 In addition, the PSH summer TOD energy prices are being set at their full cost-based
 13 levels to provide participating customers with a strong incentive to shift load out of on-peak
 14 summer hours. As shown in Table WGS-5 below, even at full cost-based levels the PSH

1 summer on-peak commodity rate is still less than the summer flat commodity rate in effect under
 2 the standard residential rate, EECC-DR. For this reason, SDG&E believes that it is appropriate
 3 to set the PSH summer TOD energy rates at full cost-based levels since these rates will provide
 4 strong energy conservation incentives without discouraging customers with higher percentages
 5 of on-peak usage from participating on PSH.

TABLE WGS-5: RESIDENTIAL COMMODITY RATE COMPARISON			
	EECC Rate (\$/kWh)		
	<u>EECC-PSH</u>	<u>EECC-DR-TOD-C</u>	<u>EECC-DR</u>
PeakShift Period Adder	\$0.91000	NA	NA
Summer			
On-Peak	\$0.08500	\$0.16464	\$0.08978
Semi-Peak	\$0.07146	\$0.07806	\$0.08978
Off-Peak	\$0.05570	\$0.06126	\$0.08978
Winter			
Semi-Peak	\$0.06899	\$0.07632	\$0.06655
Off-Peak	\$0.06421	\$0.05718	\$0.06655

Note: EECC-DR rates shown are rates effective 5/01/10.

6
 7 However, SDG&E is proposing that the PSH winter TOD energy prices not be set at their
 8 full cost-based levels to minimize the winter bill impacts that customers will experience. As
 9 shown in Table WGS-5, the proposed PSH rate has winter TOD semi-peak commodity rates that
 10 are approximately \$0.0025 per kWh higher than the winter flat commodity rate in effect under
 11 the standard residential rate, EECC-DR. At full cost-based levels the difference would be closer
 12 to \$0.01 per kWh, as shown by comparing the EECC-DR-TOD-C winter semi-peak rate to the
 13 EECC-DR winter rate in Table WGS-5. SDG&E is concerned that setting the semi-peak rate too
 14 high compared to the EECC-DR commodity rate could result in a disincentive for customers to
 15 take service on PSH. For this reason, SDG&E is proposing PSH rates with more minimal winter
 16 TOD differentials to hopefully increase the pool of customers that may have an interest in taking
 17 service on PSH.

As explained in the direct testimony of SDG&E witness Daniel J. Shulman (Chapter 5), SDG&E will be implementing a New Online Presentment and Rate Analysis Tool that will provide customers with the opportunity to compare estimated electric bills under PSH versus their otherwise applicable rate (OAR) (e.g., Schedule DR for UDC rates and Schedule EECC-DR for commodity rates) or EECC-DR-TOD-C to determine whether PSH is the right rate for them. This tool will also provide residential customers with additional usage and bill analytics features to assist them in managing their energy bills.

C. PSH Time Periods

The PSH time periods are shown in Table WGS-6 below:

TABLE WGS-6: PSH TIME PERIODS	
PeakShift Period	11 a.m. - 6 p.m. any day of the year on ReduceYour Use Days
Summer (May 1 - October 31)	
On-Peak	11 a.m. - 6 p.m. weekdays, excluding holidays
Semi-Peak	6 a.m. - 11 a.m. and 6 p.m. - 10 p.m. weekdays, excluding holidays
Off-Peak	10 p.m. - 6 a.m. weekdays, and all hours on weekends and holidays
Winter (November 1 - April 30)	
Semi-Peak	6 a.m. - 10 p.m. weekdays, excluding holidays
Off-Peak	10 p.m. - 6 a.m. weekdays, and all hours on weekends and holidays

PSH reflects a three (3) period summer TOD rate structure (on-peak, semi-peak and off-peak) and two (2) period winter TOD rate structure (semi-peak and off-peak), along with a seven (7) hour PeakShift Period (11 a.m. to 6 p.m. any day of the year) during ReduceYourUse Days.

D. ReduceYourUse Days and Triggers

During a given calendar year under the PSH program a maximum of eighteen (18) ReduceYourUse Days can be called any day of the week, year-round. PSH rates are designed based on the assumption that nine (9) ReduceYourUse Days will be called in a calendar year but the number can actually range from zero (0) to a maximum of eighteen (18) ReduceYourUse Days in a calendar year. Also, while ReduceYourUse Days can be called year-round these days are most likely to occur in summer months (May through October) when hot weather prompts

1 high air-conditioning use. The ReduceYourUse Day and trigger provision is identical to the
2 provision adopted for CPP-D in D.08-02-034, as modified by D.09-09-036,¹⁸ and proposed for
3 PSW.

4 **E. PSH Customer Notification**

5 Consistent with notification requirements adopted for CPP-D in D.08-02-034 and
6 proposed for PSW, customers on PSH will be notified no later than 3 p.m. the day before a
7 ReduceYourUse Day. Customers may elect to be notified of a ReduceYourUse Day by email
8 message, text message, or alphanumeric pager. Notification will also be posted on the SDG&E
9 website. SDG&E will work with customers to maintain accurate and current PSH customer
10 notification information.

11 **F. PSH Term of Service**

12 In accordance with SDG&E Electric Rule 12 – Rates and Optional Rates, customers
13 opting to take commodity service on PSH must remain on this rate schedule for at least 12
14 consecutive months before requesting service on another applicable commodity rate schedule.

15 **G. Bill Protection**

16 In its dynamic pricing rate design guidance, the Commission stated that default dynamic
17 pricing rates should include optional Bill Protection for the first year on the default rate.¹⁹ Since
18 PSH is an optional dynamic pricing rate, Bill Protection is not required. However, SDG&E
19 understands that one of the main obstacles in getting customers to participate on PSH will be
20 their uncertainty in whether they can benefit on the PSH rate. For this reason, to encourage
21 participation SDG&E will include 12 months of Bill Protection for the first year a customer takes
22 service under PSH. The Bill Protection will be based on the customer's bill under the PSH rate
23 compared to their OAR. As explained in the direct testimony of Shulman (Chapter 5), SDG&E
24 will implement a Shadow Billing process to track and record revenue differences collected under

¹⁸ See Attachment A of D.09-09-036 (mimeo), Appendix A, p. 6 of 20, term 9.

¹⁹ See D.08-07-045 (mimeo), Attachment A, p. 1.

1 PSH compared to the customer's OAR on an ongoing basis, and implement a Bill Protection
2 process to provide a credit for the annual bill difference if the customer would have realized a
3 lower annual bill under their OAR.

4 **H. PSH Revenue Under-/Over-Collection Treatment**

5 SDG&E is proposing to track and record differences in annual revenues collected under
6 PSH compared to the customer's OAR, and to allocate and recover these revenue differences in
7 the commodity rates of the residential class. By allocating the revenue differences resulting from
8 PSH to only the residential class, the customer class that is eligible to take service on PSH,
9 SDG&E will ensure that no class cross-subsidization occurs from PSH. Similar treatment was
10 adopted for handling revenue differences resulting from CPP-D (*i.e.*, revenue differences from
11 CPP-D allocated only to the medium and large non-residential class since this class is eligible to
12 take service on CPP-D) and PTR (*i.e.*, revenue differences from issuing PTR credits will only be
13 allocated to the residential class since PTR is a program for residential customers), and is being
14 proposed in this proceeding for handling revenue differences resulting from PSW (*i.e.*, revenue
15 differences from PSW will only be allocated to the small non-residential class since this class is
16 eligible to take service on PSW).

17 **VI. RESIDENTIAL TIME-OF-DAY (EECC-DR-TOD-C) TARIFF PROVISIONS**

18 The EECC-DR-TOD-C provisions will be detailed in a newly-created UDC tariff
19 schedule (*i.e.*, DR-TOD-C) that applies to customers taking EECC-DR-TOD-C commodity
20 service as explained in the direct testimony of Hansen (Chapter 4). The key EECC-DR-TOD-C
21 tariff provisions are discussed below:

22 **A. EECC-DR-TOD-C Applicability**

23 As shown in Table WGS-2, EECC-DR-TOD-C is applicable to customers that are
24 individually metered by SDG&E. For instance, a customer taking service under DR (Schedule
25 DR for its UDC rates and Schedule EECC-DR for its commodity rates), could choose to take

1 commodity service on EECC-DR-TOD-C. This customer will be billed commodity rates on
 2 EECC-DR-TOD-C and UDC rates under a new TOD rate schedule (DR-TOD-C), as presented in
 3 the direct testimony of Hansen (Chapter 4). The proposed new TOD UDC rate (DR-TOD-C)
 4 reflects a modified rate structure that provides EECC-DR-TOD-C customers with similar AB1X
 5 and SB695 rate capping benefits. Although optional rates such as EECC-DR-TOD-C are not
 6 necessarily required to include AB1X and SB695 benefits, SDG&E believes it is important for
 7 the EECC-DR-TOD-C rate structure to contain these rate capping benefits in order for EECC-
 8 DR-TOD-C to be a legitimate commodity rate option for low-use residential customers and thus,
 9 be applicable to a larger number of customers.

10 **B. EECC-DR-TOD-C Rate Design**

11 The direct testimony of Hansen (Chapter 4) presents the DR-TOD-C total rate design,
 12 which consists of Schedule DR-TOD-C UDC rates, Schedule EECC-TOD-C commodity rates,
 13 and Schedule DWR-BC Department of Water Resources bond charges. The EECC-DR-TOD-C
 14 rate structure consists of TOD energy rates that vary by time period (on-peak, semi-peak and off-
 15 peak) and by season (summer and winter). Since EECC-DR-TOD-C is an optional rate,
 16 SDG&E is proposing that the TOD energy pricing differentials be set at full cost-based levels to
 17 provide residential customers with strong price incentives to use energy efficiently. The
 18 proposed EECC-DR-TOD-C commodity rates are presented in Table WGS-7 below:

TABLE WGS-7: EECC-DR-TOD-C COMMODITY RATES	
	EECC-DR-TOD-C Rate
	<u>\$/kWh</u>
Summer	
On-Peak	\$0.16464
Semi-Peak	\$0.07806
Off-Peak	\$0.06126
Winter	
Semi-Peak	\$0.07632
Off-Peak	\$0.05718

1 **C. EECC-DR-TOD-C Time Periods**

2 The EECC-DR-TOD-C time periods are shown in Table WGS-8 below:

TABLE WGS-8: EECC-DR-TOD-C TIME PERIODS	
Summer (May 1 - October 31)	
On-Peak	11 a.m. - 6 p.m. weekdays, excluding holidays
Semi-Peak	6 a.m. - 11 a.m. and 6 p.m. - 10 p.m. weekdays, excluding holidays
Off-Peak	10 p.m. - 6 a.m. weekdays, and all hours on weekends and holidays
Winter (November 1 - April 30)	
Semi-Peak	6 a.m. - 10 p.m. weekdays, excluding holidays
Off-Peak	10 p.m. - 6 a.m. weekdays, and all hours on weekends and holidays

3
4 EECC-DR-TOD-C reflects a three (3) period summer TOD rate structure (on-peak, semi-peak
5 and off-peak) and two (2) period winter TOD rate structure (semi-peak and off-peak).

6 **D. EECC-DR-TOD-C Term of Service**

7 In accordance with SDG&E Electric Rule 12 – Rates and Optional Rates, customers
8 opting to take commodity service on EECC-DR-TOD-C must remain on this rate schedule for at
9 least 12 consecutive months before requesting service on another applicable commodity rate
10 schedule.

11 **VII. PEAK-TIME-REBATE (PTR) TARIFF PROVISIONS**

12 The PTR program provides customers with a bill credit for each kWh of measured
13 reduction in energy consumption during PTR events. Customers can only benefit under PTR
14 since, unlike a PSH-type dynamic pricing rate, customers are not charged higher prices for
15 energy consumed during PTR events but receive bill credits for reductions in energy
16 consumption during these events (*i.e.*, a “carrot only” type program). Since PTR does not
17 provide customers with accurate energy price signals during these events, PTR is essentially
18 considered a transitional mechanism until a dynamic pricing rate can be implemented for
19 residential customers.

20 With the introduction of the optional PSH rate for residential customers by the summer of
21 2013, SDG&E proposes that PTR credits be reduced to lower levels in 2013 to transition

1 customers from PTR to the PSH rate by making the PSH pricing more attractive to customers
2 that can provide demand response. The PTR credit levels adopted in D.08-02-034 are \$0.75 per
3 kWh and \$1.25 per kWh for customers without and with qualifying enabling technology,
4 respectively. SDG&E proposes that in year 2013 the PTR credit levels be reduced to \$0.50 per
5 kWh for customers without enabling technology and \$0.75 per kWh for customers with enabling
6 technology. The plan is to keep the PTR credits at these levels until a default PSH rate is
7 implemented for residential customers, at which time SDG&E may propose additional reductions
8 to the PTR credit levels with the eventual goal of eliminating the PTR program once a default
9 PSH rate is implemented for all residential customers.

10 **VIII. CLOSE SCHEDULES DR-TOU AND DR-TOU-DER**

11 As discussed in Section III.C of my testimony and as further presented in the direct
12 testimony of Hansen (Chapter 4), SDG&E is proposing a new optional TOD commodity rate for
13 residential customers (EECC-DR-TOD-C) with a modified total rate structure that should make
14 it easier for customers to understand the energy rates paid during given hours of the day and thus,
15 the savings that can be realized by shifting usage from high priced hours. The existing DR-TOU
16 and DR-TOU-DER rate schedules that are available to individually metered SDG&E residential
17 customers have a combined 4-tier and 2-TOU period rate structure that makes it difficult for
18 customers to understand the savings that can be realized by using less energy during on-peak
19 hours. For this reason, SDG&E proposes that Schedules DR-TOU and DR-TOU-DER be closed
20 to new customers on the date EECC-DR-TOD-C is implemented.

1 **IX. INCREMENTAL PEAKSHIFT AT HOME (PSH) CUSTOMER SERVICE-**
2 **RELATED COSTS**

3 This section presents the estimated \$10,105,000 in incremental²⁰ Customer Service-
4 related direct costs²¹ to implement and manage PSH for which SDG&E is seeking recovery in
5 this Application. These costs consist of outreach and education activities (outreach, direct
6 communications, research and website) needed to educate customers on the PSH rate option,
7 along with operations costs to implement and manage the rate.

8 Table WGS-9 below summarizes the projected incremental operations & maintenance
9 (O&M) and capital costs proposed for recovery during the 6-year timeframe, 2010-2015.

ACTIVITY	2010	2011	2012	2013	2014	2015	TOTAL
<u>PSH Outreach & Education Costs</u>							
O&M Costs							
Outreach	\$0	\$0	\$469	\$549	\$449	\$319	\$1,786
Direct Communications	\$0	\$143	\$281	\$1,036	\$1,376	\$1,486	\$4,322
Research	\$0	\$116	\$153	\$153	\$236	\$236	\$895
Website	\$0	\$165	\$25	\$151	\$163	\$113	\$616
Sub-Total O&M Costs	\$0	\$424	\$928	\$1,889	\$2,224	\$2,154	\$7,619
Capital Costs							
Website	\$0	\$260	\$140	\$0	\$0	\$0	\$399
Sub-Total Capital Costs	\$0	\$260	\$140	\$0	\$0	\$0	\$399
Total PSH Outreach & Education Costs	\$0	\$683	\$1,068	\$1,889	\$2,224	\$2,154	\$8,019
<u>PSH Operations Costs</u>							
O&M Costs	\$62	\$148	\$249	\$469	\$504	\$654	\$2,086
Capital Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total PSH Operations Costs	\$62	\$148	\$249	\$469	\$504	\$654	\$2,086
TOTAL CUSTOMER SERVICE PSH COSTS	\$62	\$831	\$1,316	\$2,358	\$2,729	\$2,809	\$10,105

²⁰ These costs are incremental since funding to implement a standard dynamic pricing rate option such as PSH has not been approved in previous SDG&E proceedings.

²¹ Direct costs do not include overhead loaders or escalation factors. The direct testimony of SDG&E witness Frederick W. Myers (Chapter 6) describes the overhead loaders and escalation factors applied to the direct costs to calculate the proposed revenue requirement.

1 **A. Outreach & Education Costs**

2 The goal of the PSH outreach and education efforts will be to achieve customer
3 participation and demand response on PSH by educating customers on the benefits of PSH,
4 including the actions they can take to benefit on this rate through effective energy management.
5 Since most residential customers currently pay flat electric commodity rates, significant effort is
6 planned to design and test the outreach and education efforts needed to achieve customer
7 awareness and understanding of time-variant pricing such as PSH. SDG&E is planning a
8 comprehensive campaign to educate customers on fundamentals such as the tiered UDC and flat
9 commodity rate structures that most customers pay today, interval electric metering under their
10 smart meter that will allow customers to take service on time-variant rates such as PSH, EECC-
11 DR-TOD-C and PTR, and energy conservation measures customers can initiate to benefit under
12 time-variant rates. One important part of this campaign effort will be to educate customers on
13 the support and assistance available to help them make an informed rate selection decision such
14 as website tools and resources, along with call center specialists to answer their questions and
15 provide ongoing support. A critical element of the outreach and education campaign will be to
16 conduct ongoing qualitative and quantitative research to assess the effectiveness of these efforts.
17 Customer input and participation will be sought throughout all stages of the campaign efforts for
18 the purpose of designing and testing the outreach and education efforts since SDG&E realizes
19 that PSH can only be implemented successfully with customer involvement.

20 As discussed below, the outreach and education campaign will consist of outreach, direct
21 communications, research, and website activities. Attachment A is a summary of the PSH
22 outreach and education plan that provides a list of education goals, marketing tactics, and a
23 timeline for PSH outreach and education activities.

24 **1. Outreach**

SDG&E estimates incremental PSH outreach costs of approximately \$1,786,000 over the 6-year timeframe, 2010-2015, as presented in Table WGS-10. The goal of the outreach efforts is to drive PSH enrollment of customers who will benefit from the rate option, and create awareness around strategies and actions customers can take to increase their benefits from the rate option. SDG&E will use multiple customer communications channels such as bill inserts, paid media, direct mail, e-mail and outreach events to deliver information about PSH to residential customers. Customers will be directed to the SDG&E website to get more detailed information on PSH and to sign up for My Account. Because the opt-in PSH dynamic pricing rate proposed for residential customers is generally similar to the default PSW dynamic pricing rate proposed for small non-residential customers, SDG&E will leverage the outreach efforts occurring for PSW to help educate residential customers on dynamic pricing rates. In addition, SDG&E plans to leverage other outreach efforts occurring in the company (e.g., PTR outreach) to ensure customers are getting a comprehensive view of the rates and programs available to the residential class. Delivering PSH information across multiple channels and over different time periods will increase customer exposure to PSH information, which is expected to lead to higher customer participation on PSH. On a going-forward basis, SDG&E will evaluate the effectiveness of the communication channels being used to determine changes needed.

TABLE WGS-10: INCREMENTAL PSH OUTREACH COSTS
(Direct Costs in 2009 Thousands of Dollars)

ACTIVITY	2010	2011	2012	2013	2014	2015	TOTAL
O&M Non-Labor Costs							
Paid Media	\$0	\$0	\$450	\$450	\$350	\$250	\$1,500
Event Materials	\$0	\$0	\$0	\$30	\$30	\$0	\$60
Media/Public Relations	\$0	\$0	\$0	\$10	\$10	\$10	\$30
SDG&E Bill Inserts	\$0	\$0	\$0	\$20	\$20	\$20	\$60
SDG&E Outreach Campaign Partnerships	\$0	\$0	\$0	\$20	\$20	\$20	\$60
Subtotal - O&M Non-Labor Costs	\$0	\$0	\$450	\$530	\$430	\$300	\$1,710
O&M Labor Costs							
Energy Program Advisor	\$0	\$0	\$19	\$19	\$19	\$19	\$76
Subtotal - O&M Labor Costs	\$0	\$0	\$19	\$19	\$19	\$19	\$76
TOTAL PSH OUTREACH O&M COSTS	\$0	\$0	\$469	\$549	\$449	\$319	\$1,786

2. Direct Communications

SDG&E estimates incremental PSH direct communications costs of approximately \$4,322,000 over the 6-year timeframe, 2010-2015, as presented in Table WGS-11. These costs consist of five different campaigns to educate, recruit, convert and maintain customers on PSH: (a) Education & Recruitment Campaign, (b) Opt-in Confirmation & Welcome Kit Campaign, (c) Care & Maintenance Campaign, (d) Anniversary Campaign, and (e) Win-Back Campaign.

The Education & Recruitment Campaign, the largest part of the direct communications budget, involves recruiting customers to PSH by delivering PSH educational material directly to specific customers via direct mail and other direct response channels. With this effort, SDG&E will provide more details on PSH directly to customers identified to be more likely to take service on PSH because of their ability to provide significant demand response (*e.g.*, higher-use residential customers living in the warmer climate zones that have more air conditioning use) and thus, customers that can benefit under the PSH rate structure. The plan is provide PSH direct educational material to approximately 125,000 customers in 2013, 175,000 customers in 2014, and 200,000 customers in 2015. The number of customers that ultimately will be provided PSH direct communications will be decided once the residential load shapes and demand response results achieved under PTR can be analyzed to determine the number of customers that can actually benefit under the PSH rate structure, which is expected to occur beginning in 2011 once interval data from smart meters is available. The communication channel used to deliver PSH information to specific customers through the education & recruitment campaign will initially consist mainly of direct mail and e-mail. Over time the marketing channels SDG&E uses to deliver PSH information directly to customers are likely to change based on the research and testing it conducts to measure the effectiveness of these marketing efforts.

The Opt-in Confirmation & Welcome Kit Campaign will involve designing and developing the welcome kit packet used to convert customers over to PSH. A packet will be sent

via mail or e-mail to each customer that indicates a willingness to enroll in PSH. The packet will reinforce the benefits of their enrollment and educate customers about all the tools and resources available to help them most effectively manage demand response under their new rate.

The Care & Maintenance Campaign will engage customers in PSH by establishing ongoing communications with participating customers through quarterly e-newsletters on PSH-related topics such as load reduction strategies. The goal of this campaign effort is to provide participating customers with ongoing communications to enhance their experience and satisfaction on the rate.

The Anniversary Campaign will be designed to provide participating customers with information, including online tools, to help them make the decision on whether to remain on PSH in the upcoming year.

The Win-Back Campaign will be launched to win-back customers that opted out of PSH after initially taking service on the rate, especially customers that realized benefits while on the rate. Customer feedback received during this campaign effort could be useful in determining program changes needed to improve customer satisfaction with the PSH program.

TABLE WGS-11: INCREMENTAL PSH DIRECT COMMUNICATIONS COSTS
(Direct Costs in 2009 Thousands of Dollars)

ACTIVITY	2010	2011	2012	2013	2014	2015	TOTAL
O&M Non-Labor Costs							
Education & Recruitment Campaign	\$0	\$0	\$30	\$765	\$1,065	\$1,215	\$3,075
Opt-in Confirmation & Welcome Kit Campaign	\$0	\$0	\$70	\$10	\$20	\$20	\$120
Care & Maintenance Campaign	\$0	\$0	\$0	\$114	\$74	\$74	\$262
Anniversary Campaign	\$0	\$0	\$0	\$0	\$35	\$15	\$50
Win-Back Campaign	\$0	\$0	\$0	\$0	\$35	\$15	\$50
Subtotal - O&M Non-Labor Costs	\$0	\$0	\$100	\$889	\$1,229	\$1,339	\$3,557
O&M Labor Costs							
Market Advisors	\$0	\$38	\$76	\$76	\$76	\$76	\$341
Communication Advisor	\$0	\$67	\$67	\$34	\$34	\$34	\$235
Load Research Advisor	\$0	\$38	\$38	\$38	\$38	\$38	\$189
Subtotal - O&M Labor Costs	\$0	\$143	\$181	\$147	\$147	\$147	\$765
TOTAL PSH DIRECT COMMUNICATIONS COSTS	\$0	\$143	\$281	\$1,036	\$1,376	\$1,486	\$4,322

3. Research

1 SDG&E estimates incremental PSH research costs of approximately \$895,000 over the 6-
2 year timeframe, 2010-2015, as presented in Table WGS-12. The research activities SDG&E
3 plans to undertake during different stages of the outreach and education campaign to get
4 customer feedback on the PSH outreach and education efforts include focus groups, online co-
5 design panels, and customer surveys. First, SDG&E plans to conduct four focus groups in 2011
6 (rate education research) to get initial feedback from customers on rate education and dynamic
7 pricing for the purpose of designing the education material. Second, SDG&E will conduct four
8 focus groups and online co-design panels in 2012 and again in 2014 (education & recruitment
9 research) to test the design and content effectiveness of PSH education materials being delivered,
10 including the communication channels used to deliver this material. Third, SDG&E plans to
11 conduct four focus groups and online co-design panels in 2013 and again in 2015 (care &
12 maintenance research) to test the design and effectiveness of ongoing PSH communications on
13 topics such as load-shedding strategies. Fourth, SDG&E will conduct customer surveys and
14 online co-design panels in 2014 and again in 2015 (overall customer experience assessment &
15 satisfaction research) to assess customer experience and satisfaction with different PSH
16 processes (*e.g.*, opt-in process, ongoing communications, and event notification) for the purpose
17 of identifying areas to improve. Fifth, SDG&E will conduct customer surveys in 2014 and 2015
18 (customer non-conversion research) with customers that were provided direct communications
19 on PSH but did not select the rate to determine why these customers did not opt-in to PSH. The
20 purpose of this research is to discover, what if any, changes need to be made to the PSH program
21 to get more customers to participate on PSH.

22 SDG&E understands that customer involvement in designing, testing and refining the
23 outreach and education campaign is vital to the success of PSH. For this reason, SDG&E's
24 research activities will seek customer input and participation during every stage of the outreach
25 and education campaign.

TABLE WGS-12: INCREMENTAL PSH RESEARCH COSTS
(Direct Costs in 2009 Thousands of Dollars)

ACTIVITY	2010	2011	2012	2013	2014	2015	TOTAL
O&M Non-Labor Costs							
Rate Education Research	\$0	\$40	\$0	\$0	\$0	\$0	\$40
Education & Recruitment Research	\$0	\$0	\$78	\$0	\$78	\$0	\$155
Care and Maintenance Research	\$0	\$0	\$0	\$78	\$0	\$78	\$155
Overall Customer Experience Assessment	\$0	\$0	\$0	\$0	\$72	\$72	\$144
Customer Non-Conversion Research	\$0	\$0	\$0	\$0	\$11	\$11	\$23
Subtotal - O&M Non-Labor Costs	\$0	\$40	\$78	\$78	\$161	\$161	\$517
O&M Labor Costs							
Customer Research Analyst	\$0	\$76	\$76	\$76	\$76	\$76	\$379
Subtotal O&M Labor Costs	\$0	\$76	\$76	\$76	\$76	\$76	\$379
TOTAL PSH RESEARCH COSTS	\$0	\$116	\$153	\$153	\$236	\$236	\$895

4. Website

SDG&E estimates incremental PSH website costs of approximately \$1,016,000 over the 6-year timeframe, 2010-2015, as presented in Table WGS-13. These costs consist of website enhancements to provide customers with PSH online education material, online support tools, video tutorials, and other web solutions. The online support tools will be available to assist customers in managing their energy usage and resulting energy bills by allowing customers to view and analyze their usage and billing data, set usage and bill thresholds and be notified when these thresholds are met, and perform rate analysis between PSH and their OAR to determine if PSH is the right rate for them. The goal of these enhancements is to improve the functionality of SDG&E's website so that, over time, the website will be the primary vehicle for customers to learn about and choose to take service on PSH. The majority of the capital expenditures for these website enhancements are addressed in the direct testimony of Shulman (Chapter 5).

Because the opt-in PSH rate being implemented for residential customers is generally similar to the default dynamic pricing rate being implemented for small non-residential customers (*i.e.*, PSW), SDG&E plans to leverage the PSW website work as much as possible when developing the PSH website enhancements. Leveraging the PSW website activities should ensure consistency in the information being delivered across SDG&E customers on dynamic

1 pricing-related issues, and should reduce the incremental costs needed to implement the PSH
 2 website enhancements. For example, when designing the PSH website enhancements SDG&E
 3 plans to draw from the expertise of the consultants and employees hired to design and develop
 4 the PSW website enhancements. Also, SDG&E will utilize much of the educational material
 5 included in the PSW online library when developing the PSH online library.

ACTIVITY	2010	2011	2012	2013	2014	2015	TOTAL
O&M Non-Labor Costs							
Web Architecture	\$0	\$35	\$0	\$20	\$20	\$20	\$95
Web Tutorial Productions	\$0	\$0	\$0	\$30	\$30	\$30	\$90
Test Web Design With Customers	\$0	\$50	\$0	\$0	\$50	\$0	\$100
Modifications to Customer Preference Center	\$0	\$80	\$0	\$0	\$0	\$0	\$80
Web Analytics	\$0	\$0	\$25	\$25	\$25	\$25	\$100
Subtotal - O&M Non-Labor Costs	\$0	\$165	\$25	\$75	\$125	\$75	\$465
O&M Labor Costs							
Website Project Manager	\$0	\$0	\$0	\$76	\$38	\$38	\$151
Subtotal - O&M Labor Costs	\$0	\$0	\$0	\$76	\$38	\$38	\$151
TOTAL PSH OPERATIONS O&M COSTS	\$0	\$165	\$25	\$151	\$163	\$113	\$616
Capital Non-Labor Costs							
Web Architecture	\$0	\$64	\$64	\$0	\$0	\$0	\$128
Web Tutorial Productions	\$0	\$120	\$0	\$0	\$0	\$0	\$120
Subtotal - Capital Non-Labor Costs	\$0	\$184	\$64	\$0	\$0	\$0	\$248
Capital Labor Costs							
Website Project Manager	\$0	\$76	\$76	\$0	\$0	\$0	\$151
Subtotal - O&M Labor Costs	\$0	\$76	\$76	\$0	\$0	\$0	\$151
TOTAL PSH OPERATIONS CAPITAL COSTS	\$0	\$260	\$140	\$0	\$0	\$0	\$399
TOTAL PSH WEBSITE COSTS	\$0	\$425	\$165	\$151	\$163	\$113	\$1,016

B. Operations

8 SDG&E estimates incremental PSH operations costs of approximately \$2,086,000 over
 9 the 6-year timeframe, 2010-2015, as presented in Table WGS-14. These operations costs consist
 10 mainly of incremental labor costs needed to implement and manage PSH as a rate option for
 11 residential customers. These labor costs consist of customer service representatives to answer
 12 customer inquiries about PSH, billing analysts to handle billing activities and exceptions
 13 associated with PSH, and various customer programs staff to perform general PSH project
 14 support activities such as managing contact information needed for PSH event (ReduceYourUse

Day) notifications and processing customer contact and account updates. In addition, non-labor costs are needed to provide internal PSH training to employees involved in implementing and managing the PSH rate option, especially customer service representative that will need to provide support to customers interested in PSH.

**TABLE WGS-14: INCREMENTAL PSH OPERATIONS COSTS
(Direct Costs in 2009 Thousands of Dollars)**

ACTIVITY	2010	2011	2012	2013	2014	2015	TOTAL
O&M Non-Labor Costs							
Employee Training on PSH	\$0	\$0	\$0	\$50	\$10	\$10	\$70
Other PSH Customer Program Costs	\$0	\$10	\$10	\$0	\$0	\$0	\$20
Subtotal - O&M Non-Labor Costs	\$0	\$10	\$10	\$50	\$10	\$10	\$90
O&M Labor Costs							
Customer Service Representatives	\$0	\$0	\$0	\$76	\$114	\$190	\$380
Billing Analysts	\$0	\$0	\$37	\$74	\$111	\$186	\$408
Customer Programs Staff	\$62	\$138	\$202	\$269	\$269	\$269	\$1,208
Subtotal - O&M Labor Costs	\$62	\$138	\$239	\$419	\$494	\$644	\$1,996
TOTAL PSH OPERATIONS COSTS	\$62	\$148	\$249	\$469	\$504	\$654	\$2,086

One PSH operational activity that is not addressed in this Application is the PSH Demand Response Measurement and Evaluation (M&E) process, including the M&E budget for PSH. Because PSH will not be implemented until 2013, SDG&E plans to propose the M&E process and budget for PSH in the 2012-2014 Demand Response Application scheduled to be filed in January 2011. The M&E evaluation process and budget for PSH will follow the DR load impact protocol adopted in D.08-04-050.

X. SUMMARY OF RECOMMENDATIONS

Consistent with the dynamic pricing guidelines established in D.08-07-045, SDG&E recommends that the Commission adopt the optional PSH commodity rate proposed for residential customers. Adoption of PSH will provide SDG&E's residential customers with the option to take service on the PSH rate after their smart meter is installed, and once PSH billing is possible on their smart meter. The PSH pricing option is designed to promote demand response from the largest customer class during high system peak days, and to produce lower energy bills for those customers who can modify their energy usage accordingly. In addition, SDG&E

1 recommends that the Commission adopt the optional EECC-DR-TOD-C commodity rate
2 proposed since, like PSH, it will provide residential customers with more accurate energy price
3 signals that will allow customers to better manage their electric usage and resulting energy bills.
4 Adoption of optional PSH and EECC-DR-TOD-C rates will also begin the process of educating
5 residential customers on the benefits of time-variant pricing in preparation for introducing a
6 default PSH rate for this customer class in the future. The Commission should also adopt the
7 PTR credit level reductions proposed for 2013 to transition customers to the PSH rate. In
8 addition, as proposed the Commission should close Schedules DR-TOU and DR-TOU-DER to
9 new customers on the date EECC-DR-TOD-C is implemented. Finally, the Commission should
10 approve recovery of up to \$10,105,000 in incremental Customer Service-related direct costs that
11 SDG&E projects it will incur to implement and manage PSH over the 6-year timeframe, 2010-
12 2015.

13 This concludes my direct testimony.

1 **XI. STATEMENT OF QUALIFICATIONS**

2 My name is William G. Saxe. My business address is 8326 Century Park Court, San
3 Diego, California 92123. I am employed as the Customer Services Pricing & Rates Manager in
4 the Market Services Department of SDG&E. I have worked for SDG&E since February 2001.
5 Prior to joining SDG&E, I was employed by Sempra Energy, the parent company of SDG&E,
6 from April 1999 through January 2001. In addition, I was employed by the Illinois Commerce
7 Commission (ICC) from September 1990 through April 1999 where I submitted expert testimony
8 on rate design and financial issues before the ICC.

9 I received a Bachelor of Science degree in Economics from the University of Wisconsin-
10 Madison in 1985. I received a Master of Business Administration degree, with a concentration
11 in Finance, from the University of Wisconsin-Madison in 1990.

12 I have previously testified before this Commission on rate design, marginal cost and other
13 issues.

ATTACHMENT A
PEAKSHIFT AT HOME (PSH) OUTREACH AND EDUCATION PLAN

Education Goals

1. Educate residential customers on how electricity is billed today and introduce them to time-variant pricing under the new PSH rate.
2. Communicate specific benefits of the PSH rate to targeted residential customers based on SDG&E customer segmentation analysis.
3. Create a positive customer experience that will ensure continued high levels of customer satisfaction with the PSH program.
4. Drive enrollment within the customer population that would most benefit from PSH.
5. Achieve a high retention rate for customers enrolled on PSH.
6. Create and maintain high levels of public awareness of the PSH program to mitigate misinformation.
7. Provide customers with information on Energy Efficiency/Demand Response programs that can enhance their energy efficiency efforts.

Marketing Tactics

1. Conduct market research to query customers on their knowledge of utility rates, billing methods, and overall energy usage and energy efficiency.
2. Utilize the SDG&E Residential segmentation profiles to research and market the PSH program to customers who have the propensity to enroll and benefit from the rate.
3. Develop a unique website portal for the PSH program and drive customers to the website for information and education.
4. Utilize print, broadcast and internet advertising to promote the website portal to customers.
5. Develop a comprehensive media/public relations campaign to educate customers about the PSH program.
6. Use segment focused direct mail with specific messaging to reach target customers.
7. Use outreach events to promote PSH to target customer segments.
8. Develop channel partnerships with other programs such as Smart Meter, Home Area Network (HAN), Energy Efficiency and Demand Response programs, Income-Based

assistance programs (*e.g.*, California Alternate Rates for Energy or CARE) and Residential New Construction.

9. Use regular SDG&E customer communications channels to continue communicating the PSH program to customers after initial launch.
10. Use the SDG&E website to promote the PSH program on various program pages.
11. Create channel distribution partners with Public Affairs & External Affairs.
12. Create external channel partners with local community groups, Realtors, and other “green” or energy focused groups.

Timeline for PSH Outreach and Education Activities

Phase 1: Pre-Implementation – (2010 – 2012): period of time from PSH program start-up until PSH implemented, covering the design, development and construction of all elements of the initial outreach and education campaign.

- Website Enhancements: launch SDG&E website enhancements to provide education material, online tools, video tutorials on PSH and other rate options available to customers, along with web analytics to track use of education and video components. Initial launch of website enhancements in 4th Quarter 2012 will provide customers with general information on PSH.

- Customer Research: perform customer research to design and test rate education and recruitment messaging through focus groups and online co-design panels. Also, perform customer research to test web designs, user experience, and accessibility of website.
- Outreach and Education Campaign: launch PSH outreach campaign by educating and recruiting customers to PSH through paid media and other communication channels. Customers will be directed to the SDG&E website to get more information on PSH and to sign up for MyAccount.
- Targeted Direct Communications: design the PSH direct mail education and recruitment material to provide targeted customers expected to benefit under PSH. Also, analyze interval load data of residential customer to identify customers for targeted PSH direct communications.
- Welcome Kit: design PSH e-welcome kit, including web services for online welcome kit.

Phase 2: Implementation - (2013): period around the 2013 implementation date of PSH that covers the education and conversion of customers onto the PSH rate.

- Launch Online Presentment and Rate Analysis Tool: by PSH implementation date launch online tool to allow customers to compare bills under PSH and other rate options to help determine whether PSH is the right rate for them.
- Website Enhancements: launch additional SDG&E website enhancements to provide education material, online tools, video tutorials on PSH and other rate options available to customers, along with web analytics to track use of education and video components.

Full launch of website enhancements, including online tools and resources, will occur prior to PSH being implemented.

- Customer Research: get customer feedback on outreach and education efforts by testing design and content of ongoing communication efforts via focus groups and online co-design panels. Also, continue to assess customer impressions of web designs and accessibility, as well as measure their overall user experience.
- Outreach and Education Campaign: deliver information about PSH to residential customers through bill inserts, paid media, direct mail, e-mail, PSH outreach events, public relations campaigns, and partnering with other SDG&E outreach campaigns. Customers will be directed to the SDG&E website to get more information on PSH and to sign up for MyAccount.
- Targeted Direct Communications: recruit customers to PSH by delivering PSH educational material to specific customers via direct mail and other direct response channels.
- Internal Training: launch internal PSH training for employees involved in managing the PSH rate option such as customer program staff, customer service representatives and billing analysts.
- Customer Conversion: manage and support customer conversions to PSH, including providing ongoing communication and education, event notification, load shedding

strategies to provide customers with a positive experience on the PSH rate, customer exception issues and enrollment confirmation packages.

- Care & Maintenance Campaign: design and issue quarterly newsletters on PSH-related topics such as load shedding strategies.

Phase 3: Post-Implementation - (2013 and beyond): period after customers complete the PSH conversion process and begin receiving PSH bills.

- Website Enhancements: ongoing website monitoring, upgrades and refinements through analytics and site usage resulting in enhancements to information and functionality.
- Customer Research: get feedback from customers on education and recruitment efforts by testing design and changes to the education and recruitment messages/platforms. Also, gain customer feedback on ongoing communications around education and load shedding strategies through focus groups and online co-design panels. Continue to perform ongoing customer research to test web designs, user experience, and accessibility of website. Finally, conduct surveys to better understand the impressions and concerns of customers who were targeted for PSH but did not opt-in.
- Outreach and Education Campaign: continue to deliver information about PSH through bill inserts, paid media, direct mail, e-mail, PSH outreach events, public relations campaigns, and partnering with other SDG&E outreach campaigns. Customers will be directed to the SDG&E website to get more information on PSH and to sign up for MyAccount.

- Targeted Direct Communications: continue efforts to recruit customers to PSH by delivering PSH educational material to specific customers via direct mail and other direct response channels.
- Monitor and Refine Outreach and Education Campaigns: monitor and refine outreach and education efforts going forward based on customer feedback received from various customer research and testing activities.
- Internal Training: continue internal PSH training for employees involved in managing the PSH rate.
- Customer Conversion: manage and support customer decision to convert to PSH, including providing ongoing communication and education, event notification, load shedding strategies to provide customers with a positive experience on the PSH rate, customer exception issues and enrollment confirmation packages.
- Care & Maintenance Campaign: issue quarterly newsletters on PSH-related topics such as load shedding strategies.
- Anniversary Campaign: launch anniversary campaign by designing and updating annually e-anniversary packets, and implementing web services for online e-anniversary kit. Also, handle customer turnover and anniversary date processing.
- Win-Back Campaign: launch campaign to win-back customers that opted out of PSH after initially taking service on the rate.

- Assess Customer Overall Satisfaction: measure customer satisfaction with PSH by assessing their experience with the PSH opt-in process, ongoing communications, event notification, event performance, and why certain customers that were targeted for PSH did not opt-in through surveys and online co-design panels. Also, measure and monitor key performance indicators such as number of customers converting to PSH, turnover on PSH, number of hits on website, use of online tools, and demand response provided during PSH events.