

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



March 19, 2008

Advice Letter 3085-E

Brian K. Cherry
Vice President, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

Subject: Creation of the Demand Response Cafeteria Style
Menu Program

Dear Mr. Cherry:

Advice Letter 3085-E is effective March 13, 2008.

Sincerely,

A handwritten signature in black ink, appearing to read "Sean H. Gallagher".

Sean H. Gallagher, Director
Energy Division

July 13, 2007

Advice 3085-E
(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: Creation of the Demand Response Cafeteria Style Menu Program

Pacific Gas and Electric Company (PG&E) respectfully submits this advice letter for approval of a Cafeteria Style Demand Response Program to augment its demand response (DR) portfolio. This advice letter responds to the California Public Utilities Commission's (Commission) call for increased DR in PG&E's service area.¹ The Commission and the California Energy Commission (CEC) have stated their common objective to adopt cost-effective DR programs that improve system reliability and mitigate utility system costs. In an effort to meet that objective as well as provide greater flexibility for customers, PG&E has designed an innovative DR program.

Purpose

The Cafeteria Style Menu (CSM) Program has been developed to gain greater customer enrollment and actual load reduction in DR programs by providing a series of options to allow customers to tailor their participation in DR to meet their operational needs and capabilities. PG&E intends to fund the program with funds previously approved for its 2006 - 2008 demand response portfolio.²

PG&E requests that the Commission consider and approve this advice letter by October 31, 2007, through a resolution that explicitly includes the following findings:

1. PG&E's proposed budget of approximately \$4,000,000 is reasonable;
2. The CSM may be funded by transfers of up to 50% of the funds approved for other programs, pursuant to D.06-03-024, p. 13; and
3. The CSM counts towards PG&E's resource adequacy requirements.

Program Goals and Targeted Customer Categories

The purpose of the CSM is to increase enrollment in DR programs and to increase actual load reduction during an event, compared to existing DR programs. PG&E expects to enroll a total of 42 megawatts (MW) in the CSM by summer 2008 (including customers currently participating in DR programs who switch to the CSM) at a cost that is competitive with existing DR programs. The CSM targets

¹ August 6, 2006, Assigned Commissioner's Ruling in Application 05-06-006

² Pursuant to D.06-03-024, p. 13, PG&E may request approval by advice letter of new demand response programs to be funded using existing DR funding.

commercial, industrial, and agricultural customers with maximum peak loads greater than 200 kilowatts (kW). However, customers with maximum peak loads of less than 200 kW are eligible to participate, as well. All customers must be able to reduce their demand by a minimum of 10 kW in order to participate.

Customer Input Is a Driving Factor in the CSM Program Design

PG&E reviewed extensive research and conducted focus groups to identify the requirements of large commercial and industrial customers to participate in a DR program. PG&E learned that these customer classes prefer flexibility in DR program operating features to a series of DR programs with fixed features. According to the research and customer input, the needs of many customers participating in DR programs are only being partially met because no single DR program accommodates every participating customer's needs. The program features for which these customers most prefer flexibility are:

- 1) *Load Reduction*: The amount of load reduction required during a DR event;
- 2) *Event Window*: The time of day during which events are called;
- 3) *Event Duration*: The length of time during which load is to be curtailed;
- 4) *Event Notification Time*: The amount of notice the customers receive prior to a DR event; and
- 5) *Consecutive Events*: The number of consecutive days DR can be called.

Another high customer priority is to link the incentive rates associated with DR programs with the customers' perceived risk of participation. Focus group participants appeared to view participation "risk" as being largely based on the event notification time before their load must be curtailed.

The CSM Program Design Provides Customers with Flexibility to Encourage Participation

The CSM combines the event triggers of price responsive and reliability programs and allows each customer to create a semi-custom program by selecting options among each program feature. This program design aligns risks and rewards with the options selected by each customer. For example, the compensation increases as Event Notification Time decreases. PG&E expects that aligning customer reward with customer risks, combining event triggers, and the introduction of customer-selected operating parameters will result in a greater rate of response during events compared to that currently observed in existing DR programs. Customer Baselines for customers selecting an Event Window of 1:00 p.m. – 7:00 p.m. are calculated using a methodology that is identical to that used for the Demand Bidding Program (DBP), the exception being that the Event Window for the DBP is 12:00 p.m. – 8:00 p.m. The Customer Baseline for CSM participants selecting an Event Window of

24/7 is calculated in a similar manner except for the fact that the Event Window for a given day is the entire day (24 hours).

CSM Program Features and Options

The chart below provides the options available to participating customers for each program feature. The two options for the Load Reduction feature result in different types of payments. Those selecting Best Effort Reduction will receive an energy payment based on the kilowatt hours (kWh) of reduced energy consumption between 50% and 150% of a participating customer’s nominated load, without having to commit to a specific amount of load reduction. Customers will only be paid if they reduce their load by at least 50% and up to 150% of their nominated load. Those selecting Committed Reduction will receive a monthly capacity payment based on the number of kW of load reduction committed by the customer, in addition to an energy payment based on the actual load reduction delivered.

Table 1: Cafeteria Style Menu Program Features and Options

	<u>Features</u>	<u>Options</u>			
Feature Group A	Notification Lead Time	2 days ahead	1 day ahead	4.5 hours ahead	0.5 hours ahead
Feature Group B	Event Duration (min-max)*	2 – 3 hours	3 – 5 hours	4-6 hours	
	Max. No. of Events / Summer Season*	3 – 25			
	Max. No. of Consecutive Days	One Day	Two days	Three Days	
	Event Window	1 p.m. – 7 p.m., weekdays except PG&E holidays	24/7, except PG&E holidays		
Feature Group C	Commit a Load?	No	Yes	Yes, plus Best Effort	
	Load Reduction	Best Effort Reduction	Committed Reduction	Committed Plus Best Effort Reduction	
	Method of Payment	Performance Payment (\$/kWh)	Capacity Payment (\$/kW) + Energy Payment (\$/kWh)	Capacity Payment + Energy Payment + Best Effort Payment	

* The product of maximum duration and maximum number of events gives the maximum event hours. Please see rate Schedule E-CSM for multipliers.

There are three categories of features depicted above (noted as Feature Groups A, B and C). Customers must select an option within each feature during the enrollment process. Customers may reconfigure their program features or opt out of the CSM during the period between November 1 and March 31 of each year. The combination of these types of features determines the payment for load reduction and operating parameters for participation. Below is a description of the three feature groups.

- *Feature Group A: Primary Risk and Reward Driver*
 - **Notification Lead Time** allows customers to select the minimum amount of notice they require in advance of a CSM event that reflects the amount of risk they are willing to bear.
- *Feature Group B: Program Operating Parameters*
 - **Event Duration** offers multiple minimum and maximum ranges of event durations.
 - **Maximum Number of Events per Summer Season** allows the customer to select the number of events in which they are willing to participate over the Summer Season. Participants are limited to 75 event hours per Summer Season.
 - **Maximum Number of Consecutive Days** allows the customer to select the number of consecutive days they will be called upon to reduce load.
 - **Event Window** allows customers to select the times during which they are willing and able to curtail their load.
- *Feature Group C: Commitment Level and Payment Types*
 - **Best Effort Reduction** entitles the customer to energy payments based on the load reduction during an event. The usage reduction may vary from hour to hour during an event. The energy payment is determined by the amount of Notification Lead Time for that event.
 - **Committed Reduction** entitles the customer to monthly capacity payments with penalties for non-compliance. The payments are based on the amount of committed load reduction (kW). Energy payments are made in addition to capacity payments, based on the actual load reduction during an event. The capacity payment will be a function of the Notification Lead Time, Event Duration, and Maximum Number of Events per year. Customers will be required to reduce their load by the committed amount when notified. Customers failing to reduce load by the committed amount during an event will receive reduced capacity and energy payments and are subject to penalties.

- Combination of **Committed with Best Effort Load Reduction** allows customers to make a conservative estimate of their committed load and yet continue to be paid for load reduction beyond the committed amount if they reduce their load by more than the commitment level. Customers selecting this option will be required to meet their committed load first. Reductions beyond the committed level, where a Best Effort Load was also confirmed, will be paid an energy payment at the Best Effort rate for the Notification Lead Time given for that event.

The CSM Program Combines Event Triggers to Maximize Utility

Price responsive and reliability programs differ in that they are each triggered by a different set of events. Price responsive event triggers tend to be based on more easily predicted conditions, whereas reliability event triggers tend to be based on more acute system emergencies. The CSM blends both types of event triggers so as to allow PG&E to call on at least a portion of the CSM participants regardless of the nature of the event. PG&E may trigger a CSM event when any of the following conditions are met:

- The California Independent System Operator (CAISO) or PG&E forecasts indicate that the CAISO system load will meet or exceed 43,000 MW;
- The CAISO issues, or PG&E expects the CAISO to issue, a Stage 2 or Stage 3 emergency;
- PG&E expects the procurement for its electric customers to require the dispatch of electric generation facilities with heat rates of 15,000 BTU/kWh or greater for the day-ahead or hour-ahead market;
- An actual or anticipated localized emergency, including but not limited to loss of generation or transmission resources;
- The average forecasted peak temperature of San Jose, Concord, Redding, Sacramento, and Fresno meets or exceeds 94 degrees Fahrenheit on a program day; or
- PG&E may call one (1) test event per year per customer at its discretion to test the program. Test events will be treated as actual CSM events, including payments and penalties, and will count towards the product limits.

Resource Adequacy

Under the Resource Adequacy (RA) counting rules adopted by the Commission in Decision (D.) 03-06-072 and confirmed in D.05-10-042, the DR obtained by PG&E from the CSM should count towards PG&E's RA requirements. As required by D.04-10-035 (the first RA Decision), the portfolio of service agreements that will be enrolled in the CSM will provide at least 48 hours of demand reduction for the Summer Season (May through October). PG&E requests that the Commission specifically find that the CSM program's effective capacity be eligible for counting for RA purposes.

Estimated Enrollment and Load Reduction for the CSM

The CSM will complement current DR programs by capturing DR in 2008 from customers who would otherwise not participate in DR. PG&E also anticipates that some customers currently enrolled in DR programs will switch to the CSM.

PG&E's estimates of enrolled load are based on historical trends in DR program enrollment. In a report entitled, "The Evaluation of Statewide Large Non-Residential Day-Ahead and Reliability Demand Response Programs", Quantum Consulting estimated that PG&E is capable of enrolling 400 customers per year into a DR program. Assuming that the CSM is approved by October 2007, PG&E expects to have the IT infrastructure for the CSM completed in time to begin enrollment and operation in June 2008. PG&E expects that the shortened enrollment window will result in an enrollment factor of 54%.³ Using Quantum's estimate and considering the abbreviated enrollment period, PG&E estimates that it will enroll approximately 216 customers currently not participating in a DR program plus another 20 customers currently participating in a DR program that will switch over, in summer 2008. Table 2 provides PG&E's estimated enrolled and effective load reduction for CSM by Load Reduction.

Table 2: Estimated Enrolled and Effective MW

	<u>Committed Reduction (MW)</u>	<u>Best Effort Reduction (MW)</u>	<u>Total (MW)</u>
Enrolled	27	15	42
Effective	24	2.5	26.5

Implicit in PG&E's expected enrolled load is the assumption that 40% of participating customers will make minimal selections for Event Duration, Number of Events (total and consecutive) and Event Window. Another 40% is assumed to make mid-range selections for these features. PG&E assumes that only 20% of customers will commit to maximum Event Durations, Number of Events (total and consecutive) and Event Window.

Cost Effectiveness Analyses

PG&E used the Total Resources Cost (TRC) test specified in the California Standard Practice Manual to evaluate the expected cost effectiveness of this program through the end of the 2008 season.⁴

³ Based on enrollment for CPP, DBP, DRP and BEC from June 1 – October 31 in 2005 and 2006.

⁴ The TRC test is explained in detail in the direct testimony of Dr. Bruce Perlstein, Chapter 6, pp. 6-1 to 6-5 filed in A.07-04-009, PG&E's Application for Approval of Air Conditioning Direct Load Control Program.

The costs of the CSM program can be divided into three categories:

- (1) costs participating customers will incur in 2008;
- (2) recurring costs PG&E will incur in 2008; and
- (3) non-recurring costs PG&E has already incurred and will incur, in order to design, develop and implement the CSM.

Table 3 below provides PG&E's non-recurring start up costs and recurring operating costs (including incentive payments) associated with the CSM.

Table 3: Recurring and Non-Recurring PG&E Costs Due to CSM

	Annual Nominal Dollar-Denominated Costs				Present Value of Costs as of 5/4/07			
	2006	2007	2008	Total	2006	2007	2008	Total
				(1)+(2)+(3)				(5)+(6)+(7)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
IT Costs		\$1,105,000	\$1,105,000	\$2,210,000		\$1,092,213	\$1,014,864	\$2,107,076
Design & Development	\$37,500	\$612,750	\$176,250	\$826,500	\$39,883	\$605,659	\$161,873	\$807,415
Operations – Program Administration			\$300,000	\$300,000			\$275,529	\$275,529
Operations – Incentive Payments			\$652,785	\$652,785			\$595,724	\$595,724
Total Program Operations			\$952,785	\$952,785			\$871,253	\$871,253
Total Design, Development, and Operations	\$37,500	\$1,717,750	\$2,234,035	\$3,989,285	\$39,883	\$1,697,872	\$2,047,990	\$3,785,744

Under the TRC test, the incentives that PG&E will pay to customers in 2008 would normally be treated as transfer payments, and therefore would not be included in the recurring costs PG&E will incur in operating this program.

However, PG&E has no reliable estimates of the participation costs customers will incur. Because participation in this program is voluntary, it is reasonable to assume that customers would not participate unless the present value of the incentive payments they expect to receive is at least equal to the present value of the “out of pocket” and “loss of service” costs that they expect to incur due to participation in that program. Therefore, in applying the TRC test, PG&E assumed that the costs that participating customers expect to incur due to this program will equal:

- (a) the capacity incentives that PG&E will pay those customers for making demand reductions available under this program; plus,
- (b) the energy incentives that PG&E will pay those customers for their actual reductions in demand during CSM program events called by PG&E.

Benefit/Cost Ratios⁵

Table 4 reports two different benefit/cost (B/C) ratios for the CSM, based on the present values of the benefits and costs reported in Table 3 above, with and without the avoided CO₂ emissions benefit.⁶

Table 4: CSM Program Benefit/Cost Ratios

	Excluding Non-Recurring Costs (1)	Including Non-Recurring Costs (2)
Excluding Avoided CO₂	1.79	0.41
Including Avoided CO₂	1.79	0.41

- (1) The costs used in calculating the first B/C ratio (1.79) include those 2008 incentive payments as well as the recurring operating costs that PG&E will incur in 2008 while implementing the CSM. Assuming that all of PG&E's assumptions and estimates are correct, this is close to the cumulative B/C ratio the program will achieve if it remains in operation after 2008.
- (2) The costs used in calculating the second B/C ratio (0.41) include the 2008 incentive payments, PG&E's recurring operating costs, and the non-recurring startup costs PG&E has already incurred or will incur designing and developing the program, including information technology (IT) costs. Because it includes non-recurring start-up costs, this B/C ratio is much lower than the ratio the program can achieve after the start-up phase. Therefore, the longer the lifetime of the CSM, the closer its B/C ratio will approach 1.79.

The Cost for Developing and Implementing the CSM is Moderate

PG&E's proposed CSM program budget of \$3,989,285 includes an Information Technology budget of \$2,210,000, a Program Design and Development budget of \$826,500 and an Operations budget of \$952,785. Information Technology includes the design, development, testing, and deployment of the enrollment, operations (notification, compliance, and settlement), and reporting systems. Program Design and Development includes external contractors that were engaged to conduct focus groups, program design & prototyping, test and validation, marketing and sales development. Operations costs include project deployment and incentive payments. PG&E anticipates that the final expenses may vary to a small degree; if the CSM proves to be more successful than expected, incentive costs will be greater than forecasted.

⁵ A complete description of the confidential cost-effectiveness analysis supporting PG&E's estimates of the cost/benefits of this program is available upon request to Commission staff and interested parties who have signed non-disclosure agreements with PG&E.

⁶ The avoided CO₂ benefit is so small in this case, it changes the B/C ratio by less than 0.01. The Commission's rules for including CO₂ emissions in sensitivity analyses of the cost-effectiveness of alternative resources are discussed in the direct testimony of Dr. Bruce Perlstein, Chapter 6, p. 6-11, filed in A.07-04-009, PG&E's Application for Approval of Air Conditioning Direct Load Control Program.

Cost Recovery Mechanism

Costs associated with the CSM will be recorded in the Demand Response Expenditures Balancing Account (DREBA). Pursuant to Decision (D.) 06-03-024, PG&E plans to use existing DR funds to develop and implement the CSM by shifting funds from other DR programs in amounts that do not exceed the 50% threshold.⁷

Tariff Changes

PG&E provides in Attachment 1, new Rate Schedule E-CSM – *Cafeteria Style Menu Program*.

Protest Period

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, by facsimile or electronically, any of which must be received no later than **August 2, 2007**, which is 20 days after the date of this filing.

CPUC Energy Division
Tariff Files, Room 4005
DMS Branch
505 Van Ness Avenue
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: jjn@cpuc.ca.gov and mas@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest should be sent via both e-mail and facsimile to PG&E on the same date it is mailed or delivered to the Commission at the address shown below.

Brian K. Cherry
Vice President, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-7226
E-mail: PGETariffs@pge.com

⁷ See D.06-03-024, p. 13.

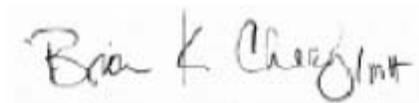
Effective Date

In order for PG&E to have the CSM operational by July 2008, PG&E requests that this advice letter be approved through a resolution no later than October 31, 2007, in order to allow sufficient time to install the IT necessary infrastructure.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the service lists for A.05-06-006. Address changes to the General Order 96-B service list should be directed to Rose de la Torre at (415) 973-4716. Advice letter filings can also be accessed electronically at:

<http://www.pge.com/tariffs>

A handwritten signature in black ink that reads "Brian K. Chappell". The signature is written in a cursive style and is positioned above the typed name.

Vice President - Regulatory Relations

Attachments

cc: Service List – A.05-06-006

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No. **Pacific Gas and Electric Company (ID U39 M)**

Utility type:

ELC GAS
 PLC HEAT WATER

Contact Person: Megan Hughes

Phone #: (415) 973-1877

E-mail: mehr@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas
PLC = Pipeline HEAT = Heat WATER = Water

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: 3085-E

Tier: 3

Subject of AL: Creation of the Demand Response Cafeteria Style Menu Program

Keywords (choose from CPUC listing): Demand Side Management

AL filing type: Monthly Quarterly Annual One-Time Other _____

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #:

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL¹: _____

Is AL requesting confidential treatment? If so, what information is the utility seeking confidential treatment for: No

Confidential information will be made available to those who have executed a nondisclosure agreement: Yes No

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information:

Resolution Required? Yes No

Requested effective date: October 18, 2007

No. of tariff sheets: 13

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: New Electric Rate Schedule E-CSM

Service affected and changes proposed¹: N/A

Pending advice letters that revise the same tariff sheets: N/A

Protests, dispositions, and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division

Tariff Files, Room 4005

DMS Branch

505 Van Ness Ave.,

San Francisco, CA 94102

jnj@cpuc.ca.gov and mas@cpuc.ca.gov

Pacific Gas and Electric Company

Attn: Brian K. Cherry

Vice President, Regulatory Relations

77 Beale Street, Mail Code B10C

P.O. Box 770000

San Francisco, CA 94177

E-mail: PGETariffs@pge.com

**ATTACHMENT 1
Advice 3085-E**

Cal P.U.C. Sheet No.	Title of Sheet	Cancelling Cal P.U.C. Sheet No.
26446-E	Schedule E-CSM--Cafeteria Style Menu Program	New
26447-E	Schedule E-CSM (Cont.)	New
26448-E	Schedule E-CSM (Cont.)	New
26449-E	Schedule E-CSM (Cont.)	New
26450-E	Schedule E-CSM (Cont.)	New
26451-E	Schedule E-CSM (Cont.)	New
26452-E	Schedule E-CSM (Cont.)	New
26453-E	Schedule E-CSM (Cont.)	New
26454-E	Schedule E-CSM (Cont.)	New
26455-E	Schedule E-CSM (Cont.)	New
26456-E	Schedule E-CSM (Cont.)	New
26457-E	Table of Contents -- Rate Schedules	25993-E
26458-E	Table of Contents -- Title Page	26230-E



Schedule E-CSM—Cafeteria Style Menu Program

(N)

APPLICABILITY: The Cafeteria Style Menu Program (CSM) is a demand response program that offers customers flexibility and incentives to reduce demand when requested by PG&E.

TERRITORY: This schedule is available throughout PG&E's electric service territory.

ELIGIBILITY: The CSM is available to PG&E electric bundled service customers billed on a commercial, industrial, or agricultural demand-based time-of-use electric rate schedule subject to the limitations specified below.

A customer, or service agreement (SA), cannot be on Schedule E-CSM and participate in any other demand response program except for E-OBMC or E-POBMC. An eligible customer must continue to take service under the provisions of its otherwise applicable schedule (OAS).

Customers billed via net-metering (NEM, NEMFC, NEMBIO, etc.), and customers billed for standby service (either full or partial) are not eligible for the CSM. In addition, Medical Baseline customers are not eligible to participate in this program.

Each participating SA must reduce a minimum of ten (10) kilowatts (kW).

FLEXIBLE FEATURES AND OPTIONS: The program season is May 1 through October 31 (Summer Season). The program does not operate on PG&E holidays during the Summer Season, which are the days the following are legally observed: Memorial Day, Independence Day, and Labor Day.

There are two ways a customer may participate in this program: (1) Committed Load basis; and (2) Best Efforts basis. Customers electing to participate on a Committed Load basis may also elect to nominate additional load to participate on a Best Efforts basis. Committed Load customers electing to also participate on a Best Efforts basis must first meet their Committed Load obligations before qualifying for any Best Effort payments.

Committed Load – Committed Load customers receive a monthly capacity payment, in addition to an energy payment. Customers are required to curtail their load by the Committed Load amount relative to a baseline when notified of an event (see Customer Baseline section). Committed Load customers are subject to penalties for non-compliance during program events.

Best Effort – Best Effort customers receive incentives for performance and are paid based upon their level of energy reduction during an event. Best Effort customers are not subject to penalties for non-compliance.

Customers electing either basis for participation must designate specific program features to customize this program to meet their operational needs. The following features and options are available. A customer must elect one option from each feature below (Section A to F):

A. Minimum Event Notification Time*

1. Two (2) calendar days-ahead
2. One (1) calendar day-ahead
3. 4.5 hours day-of
4. 30 minutes day-of

* Best Effort only customers may select one or more adjacent notification times.

(N)

(Continued)



Schedule E-CSM—Cafeteria Style Menu Program
(Continued)

(N)

FLEXIBLE
FEATURES AND
OPTIONS:
(Cont'd.)

B. Event Duration

1. Two (2) to Three (3) hours
2. Three (3) to Five (5) hours
3. Four (4) to Six (6) hours

C. Maximum Number of Events per Summer Season

1. Three (3) to Twenty-five (elect any whole number within this range)

D. Maximum Consecutive Event Days

1. One (1)
2. Two (2)
3. Three (3)

E. Event Window (hours when an event may occur)

1. 1 p.m. to 7 p.m., weekdays only, excluding PG&E holidays
2. 24 hours a day, 7 days a week, excluding PG&E holidays

F. Type of Load Commitment (customers may enroll up to 85% of Peak Load)

1. Best Effort Load

Best Effort customers who elect 4.5 hours or more event notification time will be notified of an event and must confirm their load and event participation within 120 minutes of their notification to receive compensation.

Best Effort customers electing 30 minute event notification time will be notified of an event and must confirm their load and event participation within 30 minutes of the notification to receive compensation.

Note, when a customer fails to confirm or nominate load for a notified event, they may not participate in any other events for that same day. Only events when a Best Effort customer has confirmed participation will count towards CSM program limits.

2. Committed Load

Committed Load customers will be notified of an event based on their elected Event Notification Time, but do not need to confirm their participation as they are required to drop their Committed Load.

(N)

(Continued)



Schedule E-CSM—Cafeteria Style Menu Program
(Continued)

(N)

NON-
DISCRETIONARY
PROGRAM
FEATURES:

1. The maximum number of event hours per Summer Season is 75 hours per customer. Customers may elect fewer event hours via their selection of event duration (Feature B) and number of events selected (Feature C).
2. A customer may not enroll more than 85% of its peak load in this program. Peak load is defined as the average of the three highest on-peak monthly billing demands during the most recent past six months of the current and/or previous Summer Season. PG&E reserves the right to review the customer's peak load and adjust the maximum allowable load drop commitment as needed.
3. Each customer may participate in only one event per day for load designated under its SA.
4. Customers must enroll in CSM through PG&E's CSM website.
5. PG&E will credit incentive payments and apply non-compliance penalties, where applicable, within a period no longer than ninety (90) days after each event. These payments and penalties will be reflected in the customer's bill as an adjustment.
6. Customers may change their selected options or unenroll in the program between November 1 and March 31, through PG&E's website.
7. Customers electing a two calendar day-ahead event notification time will be notified by 12 noon two days prior to the event. Customers electing one day-ahead event notification time will be notified by 12 noon one day prior to the event.
8. A customer will not receive payments or owe penalties and will not be obligated to participate in any events until all necessary metering and communications equipment has been installed and all requirements have been met.

CUSTOMER
BASELINE:

A Customer Baseline (CB) will be valid for purposes of participation if there are at least ten (10) similar weekdays of interval data available on PG&E's CSM Website.

The CB on any given day during the program is the hourly average based on the three (3) highest energy usage days of the immediate past ten (10) similar weekdays when a customer is notified of an event. The three (3) highest energy usage days are those days with the highest total kilowatt-hour usages during the event window elected, (i.e., 1 p.m. to 7 p.m., or 24/7). The load during each hour of these selected three days will be averaged to calculate an hourly baseline for each hour. The past ten (10) similar days will include Monday through Friday, excluding PG&E holidays, and will additionally exclude days when the customer was paid to reduce load on another interruptible or other curtailment program or days when a rotating outage is called.

For events that begin on the half-hour, the CB will be the average of the hourly CB of those corresponding hours. For example, the CB for an event hour of 1:30 to 2:30, would be the average of the CB for 1:00 to 2:00 and 2:00 to 3:00.

(N)

(Continued)



Schedule E-CSM—Cafeteria Style Menu Program
(Continued)

(N)

RATES: The payments under this rate schedule will be determined depending on the customer's election of the type of commitment to reduce load and feature selections.

The prices below may be periodically changed with approval from the Commission.

Best Effort Rates and Payments

Customers that have elected to curtail load on a Best Effort basis will receive energy payments for CSM events if they successfully confirmed and reduced at least 50% of their nominated Best Effort Load in any specific hour (BEL_{HR}). Customers will be paid up to a maximum of 150% of their nominated BEL_{HR}.

The Hourly Delivered Load (Delivered Load_{HR}) is equal to the Hourly Customer Baseline (CB_{HR}) minus the average demand during the event hour (Actual Load_{HR}). The average demand is defined as the energy consumed during the event hour converted to demand measured in kilowatts. The Hourly Delivered Load cannot be less than 10 kW.

The Best Effort Hourly Payments are determined as follows:

$$\text{Delivered Load}_{HR} = \text{CB}_{HR} - \text{Actual Load}_{HR}$$

$$50\% \text{ BEL}_{HR} \leq \text{Delivered Load}_{HR} \leq 150\% \text{ BEL}_{HR}$$

$$\text{Best Effort Payment}_{HR} = \text{Delivered Load}_{HR} \cdot \text{Best Effort Rate}_{HR}$$

Best Effort rates are based upon the amount of notification time elected before an event is called. Customers will be paid at the rate for the event they confirmed to participate in and successfully reduced load.

Event Notification Time	Best Effort Rate _{HR}
2 calendar days	\$0.40/kWh
1 calendar day	\$0.50/kWh
4.5 hours	\$0.60/kWh
30 minutes	\$1.00/kWh

(N)

(Continued)



Schedule E-CSM—Cafeteria Style Menu Program
(Continued)

(N)

RATES: (Cont'd.) **Committed Load Rates and Payments**

Committed Load customers receive a Committed Load Payment and Energy Payment. Non-compliance penalties may reduce customer incentive payments or potentially result in amounts owed to PG&E for not curtailing their Committed Load. Payments are due only for the Summer Season months.

A. Committed Load Payment and Penalty

The Committed Load Payment (CLP) is determined on an hour by hour basis relative to how a customer performs in a CSM Event. The CLP is dependent on the calculated Committed Rate (CR), the Committed Load, and any hourly adjustments described below.

The CR is based on the product of each Feature/Option Multiplier and the Committed Load Base Price (CLBP) found in the following tables. The multipliers are determined by the options selected in Features A, B, C, D, and E.

$$CR = CLBP * M_1 * M_2 * M_3$$

Committed Load Base Price

Event Notification Time	\$/kW-month
30 Minutes	\$10.00
4.5 Hours	\$7.00
1 calendar day	\$5.00
2 calendar days	\$4.00

(N)

(Continued)



Schedule E-CSM—Cafeteria Style Menu Program
(Continued)

(N)

RATES: (Cont'd.)

Tables of Multipliers for Customer Specific Elections

Table 1. Product of Maximum Event Duration and Number of Events (Features B and C) (M_1)

*Product Max is determined by multiplying the maximum event duration selected in Feature B and the maximum number of events selected in Feature C. For example, if you elect the 3-5 hour option in Feature B and 10 events in Feature C, you would have a Product Max of $5 * 10 = 50$, and a M_1 multiplier of 0.93. Product Max (total event hours) is limited to 75.*

Product Max	Multiplier	Product Max	Multiplier	Product Max	Multiplier
9	0.55	36	0.87	63	0.97
12	0.58	39	0.88	65	0.975
15	0.61	40	0.89	66	0.98
18	0.64	42	0.90	69	0.985
20	0.67	45	0.91	70	0.99
21	0.70	48	0.92	72	0.995
24	0.73	50	0.93	75	1.0
25	0.76	51	0.94		
27	0.79	54	0.95		
30	0.82	55	0.955		
33	0.85	57	0.96		
35	0.86	60	0.965		

(N)

(Continued)



Schedule E-CSM—Cafeteria Style Menu Program
(Continued)

RATES: (Cont'd.)

Table 2. Maximum Number of Consecutive Days (M2)

Option	Multiplier
1 day	1.0
2 day	1.1
3 day	1.13

Table 3. Event Window (M₃)

Option	Multiplier
1 p.m. to 7 p.m. Weekdays	1.0
24 hours / 7 days per week	1.2

(N)

(N)

(Continued)



Schedule E-CSM—Cafeteria Style Menu Program
(Continued)

(N)

RATES: (Cont'd.)

If no CSM Events were called during the program month, then the CLP for the month will be the product of the Committed Rate and the Committed Load.

$$\text{CLP (\$/month)} = \text{CR (\$/kW-month)} * \text{Committed Load (kW)}$$

If one or more CSM Events were called during the operating month, then the CLP for the operating month is the sum of the Adjusted Hourly CLPs determined as follows:

$$\text{CLP (\$/month)} = \text{CR} * \text{Committed Load} - \sum \text{Adjusted CLP}_{\text{HR}}$$

- 1) The Hourly Delivered Load cannot be less than 10 kW.

$$\text{Delivered Load}_{\text{HR}} = \text{CB}_{\text{HR}} - \text{Actual Load}_{\text{HR}}$$

- 2) The Hourly Delivered Commitment Ratio (Delivered Ratio_{HR}) is the Hourly Delivered Load divided by the Committed Load.

$$\text{Delivered Ratio}_{\text{HR}} = \text{Delivered Load}_{\text{HR}} / \text{Committed Load}_{\text{HR}}$$

- 3) The Unadjusted Hourly CLP equals the customer's total CLP for a Summer Season divided by the Product Max (the product of a customer's selected maximum event duration and number of events).

$$\text{Unadjusted CLP}_{\text{HR}} = (\text{Committed Load} * \text{CR} * 6) / \text{Product Max}$$

- 4) The Adjusted CLP_{HR} is determine as follows:

Delivered Ratio_{HR}	Adjusted CLP_{HR}
=> 0.90 and <= 1	Unadjusted CLP _{HR} * (1 - Delivered Ratio _{HR})
=> 0.50 and < 0.90	Unadjusted CLP _{HR} * 2 * (1 - Delivered Ratio _{HR})
=> 0 and < 0.50	Unadjusted CLP _{HR} * 1.5

(N)

(Continued)



Schedule E-CSM—Cafeteria Style Menu Program
(Continued)

(N)

RATES: (Cont'd.) B. Energy Payment

If no CSM Events were called during the program month, then the monthly Energy Payment is zero (0).

If one or more CSM Events were called during the program month, then the monthly Energy Payment is obtained by summing the Hourly Energy Payments.

$$\text{Energy Payments (\$/month)} = \sum \text{Energy Payments}_{HR}$$

The Hourly Energy Payments are determined as follows:

$$\text{Delivered Load}_{HR} = \text{CB}_{HR} - \text{Actual Load}_{HR}$$

Delivered Load_{HR} must be greater than or equal to 10 kW. In addition, for a customer to receive an Hourly Energy Payment, the Delivered Ratio_{HR} must be equal to or greater than 50%.

$$\text{If Delivered Load}_{HR} \leq \text{Committed Load}_{HR}$$

$$\text{Energy Payment}_{HR} = \text{Delivered Load}_{HR} * \text{Energy Price}_{HR}$$

$$\text{Where the Energy Price}_{HR} = \$0.15/\text{kWh}$$

$$\text{If Delivered Load}_{HR} > \text{Committed Load}_{HR}$$

$$\text{Energy Payment}_{HR} = \text{Committed Load}_{HR} * \text{Energy Price}_{HR}$$

+

$$(\text{Delivered Load}_{HR} - \text{CL}_{HR}) * \text{Best Effort Rate}_{HR}$$

$$\text{Where the Energy Price}_{HR} = \$0.15/\text{kWh} \text{ and}$$

$$50\% \text{ BEL}_{HR} \leq (\text{Delivered Load}_{HR} - \text{CL}_{HR}) \leq 150\% \text{ BEL}_{HR}$$

Best Effort Rate_{HR} is found in the Best Effort Rates and Payments section.

Best Effort payments are only available to customers who reduced at least 50% of their nominated Best Effort Load in any specific hour (BEL_{HR}). In addition, customers will be paid up to a maximum of 150% of their nominated BEL_{HR}. Note, if customer did not nominate a Best Effort Load, only energy payments associated with the Committed Load will be made (Delivered Load_{HR} - CL_{HR} = 0).

(N)

(Continued)



Schedule E-CSM—Cafeteria Style Menu Program
(Continued)

(N)

PROGRAM
TRIGGER:

PG&E may trigger a CSM Event when any of the following conditions are met:

1. Either the California Independent System Operator (CAISO) or PG&E forecasts indicate that the CAISO system load will meet or exceed 43,000 MW.
2. The CAISO issues, or PG&E expects the CAISO to issue, a Stage 2 or Stage 3 emergency.
3. PG&E expects the procurement for its electric customers to require the dispatch of electric generation facilities with heat rates of 15,000 BTU/kWh or greater for the day-ahead or hour-ahead market.
4. An actual or anticipated localized emergency, including but not limited to loss of generation or transmission resources.
5. The average forecasted peak temperature of San Jose, Concord, Redding, Sacramento, and Fresno meets or exceeds 94 degrees Fahrenheit.
6. PG&E may call one (1) test event per year per customer at its own discretion if it deems necessary to test the program. Test events will be treated as actual CSM Events, including payments and penalties, and will count towards the program limits.

(N)

(Continued)



Schedule E-CSM—Cafeteria Style Menu Program
(Continued)

(N)

METERING AND COMMUNICATIONS EQUIPMENT:

Each customer must have an approved interval meter and approved meter communications equipment installed and operating prior to participating in this program in order to establish a valid Customer Baseline.

An approved interval meter is capable of recording usage in 15-minute intervals and being read remotely by PG&E and by PG&E's Program Coordinator.

For customers with a maximum demand of 200 kW or greater for three consecutive months in the past 12 billing months, PG&E will provide and install the metering and communication equipment, if required, at no cost to the customer. For other customers, PG&E will, if required, provide and install the metering and communication equipment at the customer's expense pursuant to Electric Rule 2, Special Facilities.

PROGRAM NOTIFICATION EQUIPMENT:

Customers, at their expense, must have: (1) access to the Internet and an e-mail address to receive notification of a CSM Event; and (2) an alphanumeric pager that is capable of receiving a text message sent via the Internet. A customer cannot participate until all of these requirements have been satisfied.

Customers will be notified using one or more of the above-mentioned systems when a CSM Event occurs.

PG&E will make best efforts to notify customers, however receipt of such notice is the responsibility of the participating customer. In addition, the customer may check PG&E's CSM website to see if a CSM Event has been triggered. PG&E does not guarantee the reliability of the pager system, e-mail system, or website by which the customer receives notification.

PROGRAM RESEARCH AND ANALYSIS:

All customers participating on this program agree to allow personnel from the California Energy Commission (CEC), PG&E, and their contracting agents, reasonable access to conduct a site visit for measurement and evaluation and access to the customer's interval meter data. Participants must also agree to complete any surveys needed to enhance this program.

PROGRAM TERMS:

Customers are allowed to terminate their participation in the program from November 1 through March 31 through PG&E's website.

PG&E may terminate a customer's participation in the program at any time.

TECHNICAL ASSISTANCE AND TECHNOLOGY INCENTIVES:

Technical audit assistance and technology incentives (TA/TI) may be available to enhance the customer's ability to respond to curtailment requests for on-peak demand reductions.

(N)

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A-6	Small General Time-of-Use Service	24871-24872, 26046-26047, 25981, 25486, 24875-E
A-10	Medium General Demand-Metered Service	24876, 26048-26051, 24877, 22874, 25487, 25982, 25488, 24880-E
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**PG&E Gas and Electric
Advice Filing List
General Order 96-B, Section IV**

ABAG Power Pool	Douglass & Liddell	PG&E National Energy Group
Accent Energy	Downey, Brand, Seymour & Rohwer	Pinnacle CNG Company
Aglet Consumer Alliance	Duke Energy	PITCO
Agnews Developmental Center	Duke Energy North America	Plurimi, Inc.
Ahmed, Ali	Duncan, Virgil E.	PPL EnergyPlus, LLC
Alcantar & Kahl	Dutcher, John	Praxair, Inc.
Ancillary Services Coalition	Dynergy Inc.	Price, Roy
Anderson Donovan & Poole P.C.	Ellison Schneider	Product Development Dept
Applied Power Technologies	Energy Law Group LLP	R. M. Hairston & Company
APS Energy Services Co Inc	Energy Management Services, LLC	R. W. Beck & Associates
Arter & Hadden LLP	Exelon Energy Ohio, Inc	Recon Research
Avista Corp	Exeter Associates	Regional Cogeneration Service
Barkovich & Yap, Inc.	Foster Farms	RMC Lonestar
BART	Foster, Wheeler, Martinez	Sacramento Municipal Utility District
Bartle Wells Associates	Franciscan Mobilehome	SCD Energy Solutions
Blue Ridge Gas	Future Resources Associates, Inc	Seattle City Light
Bohannon Development Co	G. A. Krause & Assoc	Sempra
BP Energy Company	Gas Transmission Northwest Corporation	Sempra Energy
Braun & Associates	GLJ Energy Publications	Sequoia Union HS Dist
C & H Sugar Co.	Goodin, MacBride, Squeri, Schlotz &	SESCO
CA Bldg Industry Association	Hanna & Morton	Sierra Pacific Power Company
CA Cotton Ginners & Growers Assoc.	Heeg, Peggy A.	Silicon Valley Power
CA League of Food Processors	Hitachi Global Storage Technologies	Smurfit Stone Container Corp
CA Water Service Group	Hogan Manufacturing, Inc	Southern California Edison
California Energy Commission	House, Lon	SPURR
California Farm Bureau Federation	Imperial Irrigation District	St. Paul Assoc
California Gas Acquisition Svcs	Integrated Utility Consulting Group	Sutherland, Asbill & Brennan
California ISO	International Power Technology	Tabors Caramanis & Associates
Calpine	Interstate Gas Services, Inc.	Tecogen, Inc
Calpine Corp	IUCG/Sunshine Design LLC	TFS Energy
Calpine Gilroy Cogen	J. R. Wood, Inc	Transcanada
Cambridge Energy Research Assoc	JTM, Inc	Turlock Irrigation District
Cameron McKenna	Luce, Forward, Hamilton & Scripps	U S Borax, Inc
Cardinal Cogen	Manatt, Phelps & Phillips	United Cogen Inc.
Cellnet Data Systems	Marcus, David	URM Groups
Chevron Texaco	Matthew V. Brady & Associates	Utility Resource Network
Chevron USA Production Co.	Maynor, Donald H.	Wellhead Electric Company
City of Glendale	MBMC, Inc.	White & Case
City of Healdsburg	McKenzie & Assoc	WMA
City of Palo Alto	McKenzie & Associates	
City of Redding	Meek, Daniel W.	
CLECA Law Office	Mirant California, LLC	
Commerce Energy	Modesto Irrigation Dist	
Constellation New Energy	Morrison & Foerster	
CPUC	Morse Richard Weisenmiller & Assoc.	
Cross Border Inc	Navigant Consulting	
Crossborder Inc	New United Motor Mfg, Inc	
CSC Energy Services	Norris & Wong Associates	
Davis, Wright, Tremaine LLP	North Coast Solar Resources	
Defense Fuel Support Center	Northern California Power Agency	
Department of the Army	Office of Energy Assessments	
Department of Water & Power City	OnGrid Solar	
DGS Natural Gas Services	Palo Alto Muni Utilities	