

Application of)
SAN DIEGO GAS & ELECTRIC COMPANY)
For Authority to Update)
Cost Allocation And Electric Rate Design)
(U 902-E))

Application No. 08-11-_____
Exhibit No.: (SDGE-04) _____

**PREPARED DIRECT TESTIMONY
OF JAMES SPURGEON
ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY**

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

NOVEMBER 14, 2008

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1 **PREPARED TESTIMONY**
2 **OF**
3 **JAMES SPURGEON**
4 **CHAPTER 4**

5 **I. INTRODUCTION**

6 In Decision (D.) 08-07-045, the Commission’s “Decision Adopting Dynamic Pricing
7 Timetable and Rate Design Guidance for Pacific Gas and Electric Company”, the California
8 Public Utilities Commission (Commission) established specific dynamic pricing implementation
9 timing requirements and rate design guidance for Pacific Gas & Electric (PG&E), and suggested
10 that San Diego Gas and Electric (SDG&E) and Southern California Edison (SCE) take this
11 decision into consideration in their respective rate design proceedings. While SDG&E believes
12 its current approach to dynamic pricing rate design and implementation timing, in large part,
13 adheres to the guidance set forth by the Commission, this testimony identifies and presents
14 several specific proposed changes to SDG&E’s default Critical Peak Pricing (CPP) and Peak
15 Time Rebate (PTR) rates to more closely align these rates with the guidance adopted by the
16 Commission in D.08-07-045. Additionally, this chapter will briefly address SDG&E’s future
17 plans for implementing a default CPP rate for small, non-residential customers,¹ and eliminate
18 the planned implementation of PTR for these customers.

19
20 **II. CHANGES TO SDG&E’S EXISITNG DEFAULT CPP RATE**

21 **A. CPP Events**

22 SDG&E’s current and effective default CPP rate is designed based on the activation of 9
23 CPP events, and provides for the activation of CPP events during only the summer months (i.e.
24 May through September). CPP events can occur on non-holiday weekdays and Saturdays
25 between the hours of 11:00a.m. – 6:00p.m. The CPP rate also includes “soft triggers” that
26 provide SDG&E with the flexibility to call CPP events only when they are necessary.
27 Depending on forecasts of weather conditions and SDG&E’s system load, potential local electric
28 system emergencies, or broader statewide system emergencies called by the California

¹ Small, non-residential customers are Commercial and Agricultural customers with demands less than 20 kW.

1 Independent System Operator (CAISO), under the “soft trigger” mechanism, the number of CPP
2 events during a summer season can vary from zero events to no more than 18 events.

3 In D.08-07-045, the Commission stated²:

4 “.....CPP events should not be limited to summer weekday afternoons. While
5 tight supply and demand conditions are most likely to occur on summer
6 weekday afternoons, tight conditions or high wholesale energy prices can also
7 occur on weekends and holidays, and potentially at other times of year. The
8 increasing role of intermittent renewable resources like wind can also
9 contribute to a tight supply-demand balance at any time of day, year-round.
10 A study issued by the CAISO last year highlights how the addition of
11 intermittent renewable resources can contribute to wholesale market
12 volatility. The CAISO has identified demand response as a critical
13 dependency that needs to be addressed to integrate renewables. Furthermore,
14 transmission and generation outages and natural disasters affecting the
15 electric system can occur at any time.” (footnote omitted)

16 The Commission went on to conclude that CPP rates should include additional flexibility
17 with regard to when a CPP Event can be called and adopted the following³:

18 “The utilities should be able to call a variable number of events each year,
19 and the rate should be designed based on the number of events that would be
20 called during a typical year” and “The utilities should be able to call critical
21 peak events any day of the week, year round.”

22 SDG&E agrees with the Commission’s assessment and requests Commission approval to
23 specifically modify its CPP rate so that CPP events can be called any day of the week, year
24 round.

² D.08-07-045, pg. 71.

³ D.08-07-045, pg. 72.

1
2 **B. Default CPP for Medium-sized Non-residential Customers**

3 During May 2008, SDG&E implemented default CPP for all medium and large non-
4 residential⁴ customers whose facilities were equipped with the appropriate electric metering.⁵ As
5 a key component of CPP customer outreach and education efforts, SDG&E developed an online
6 CPP rate analysis tool for use directly by customers. Since these customers' facilities are
7 equipped with Interval Data Recorder (IDR) metering, customers can use the tool to calculate
8 their estimated annual bills based on their individual customer-specific historical 15-minute
9 interval usage data and current electric rates. When customers use the CPP rate analysis tool to
10 calculate estimated bills under the CPP rate, customers can input a variety of different
11 assumptions, such as various levels of capacity reservation, an estimated number of CPP events,
12 and an estimated level of electric load reduction customers think they can achieve during CPP
13 events. Most large non-residential customers can make effective use of the CPP rate analysis
14 tool because they have 12 months of historical interval usage data.

15 On the other hand, as it is currently written, SDG&E's default CPP rate schedule requires
16 default CPP for medium-sized non-residential customers no sooner than 90 days after receiving
17 an Advanced Metering Infrastructure (AMI) meter. As a result, customers could end up
18 defaulting to CPP with only three or four months of 15-minute interval data provided by the new
19 AMI meter. SDG&E intends to make an online CPP rate analysis tool, similar to the one
20 described above, available to the remaining medium-sized customers as they begin the process of
21 defaulting to the CPP rate. While these customers currently receive service under time-of-use
22 (TOU) rates, their meter data is based on monthly meter readings and provides aggregated
23 monthly usage by TOU period. Because the CPP rate is event based, 15-minute interval data is
24 required to determine the energy charges for usage above a customer's level of reserved capacity

⁴ Medium and large non-residential customers are commercial, industrial and agricultural customers with demand equal to or greater than 20 kW.

⁵ SDG&E's rate, Schedule EECC-CPP-D, Special Condition 19 – Appropriate Electric Metering: A fifteen-minute interval data recording meter with related telecommunications capability, compatible with the Utility's meter reading, time-of-use billing, and telecommunications systems. For customers whose demand for electricity is equal to or greater than 20 kW for twelve consecutive months or is expected to equal or exceed 20 kW, and whose maximum demand is less than 200 kW, with facilities that are not currently equipped with the Appropriate Electric Metering, service under this schedule shall become effective no sooner than 90 days from the date of installation of an AMI meter, unless the Utility and the customer mutually agree to an earlier date.

1 on each specific CPP event day. SDG&E believes that in order to provide customers with the
2 most accurate CPP analyses possible, at least 12 months of 15-minute interval data is required.

3 Therefore, and consistent with the Commission’s order that PG&E wait until customers
4 have at least 12 months of interval data prior to defaulting to CPP⁶, SDG&E seeks Commission
5 approval to modify its CPP rate so that its customers will similarly default to CPP only after
6 SDG&E’s billing and systems upgrades have been completed and customers have had an AMI
7 meter for at least 12 months.⁷

9 **III. RESIDENTIAL PTR CUSTOMER REFERENCE LEVEL**

10 In D.08-02-034⁸, the Commission adopted a methodology for calculating bill credits for
11 residential customers under SDG&E’s PTR rate which provides customers with rebates if their
12 total usage during all PTR events that occurred over the course of a particular billing period was
13 lower than the sum of the customer reference levels during the same billing period.

14 While SDG&E continues to believe that this monthly average methodology is
15 explainable to customers and is a strong predictor of actual usage, upon further analyses and for
16 several other reasons, SDG&E has concluded that providing customers with bill credits based on
17 their per-event contributions to demand response is a far better approach. SDG&E prefers this
18 alternative approach because it is easier to explain to customers, which should lead to greater
19 customer acceptance, demand response performance and persistence. Under the current monthly
20 average approach, multiple events occurring during the same billing period may be problematic.
21 For instance, a customer may take specific steps and make a real effort to reduce consumption
22 during a first event but, for whatever reason, is unable to reduce during a subsequent event.
23 Under the current method, this customer could end up losing the entire credit it would have
24 earned for the first event if a per-event rebate calculation approach was in place. SDG&E is
25 concerned that a customer under these circumstances will not make the same efforts to reduce
26 consumption during events in subsequent billing periods because the customer’s credit could be
27 eliminated, rendering the customer’s initial efforts effectively meaningless. Another equally

⁶ D.08-07-045, pg. 23 – “PG&E should propose that after 12 months of experience with the new AMI meter customers should be defaulted to a TOU/ CPP rate.....”

⁷ Customers will, nevertheless, have the option to take service under CPP upon receiving an AMI meter.

⁸ “Opinion Addressing the Application and Motion to Adopt the All Party and All Issue Settlement” in Phase 2 of SDG&E’s 2008 GRC, Application (A.) 07-01-047.

1 important concern is that if a customer's usage exceeds its reference level on the first peak day in
2 a billing period, the economic motivation to participate in any future events during the same
3 billing period is significantly diminished. These concepts are not only difficult for customers to
4 understand, they defeat the primary objective of PTR, which is to encourage customers by
5 providing an incentive to reduce their demand for electricity at very specific times. SDG&E
6 believes that continued customer participation in, and acceptance of, PTR will be significantly
7 increased by moving to a per-event incentive mechanism. Another advantage to the per-event
8 methodology is that SDG&E would have the ability, with online usage data presentment and
9 emails, to provide customers with next-day performance feedback. If a customer is able to
10 reduce consumption during an event to a level below its reference level, SDG&E could notify the
11 customer that it will receive a bill credit since the credit will not be impacted by the customer's
12 performance under subsequent events. Under the monthly calculation, SDG&E would not be
13 able to provide critical performance feedback until after the end of the billing period since the
14 bill credit is based on the customer's performance during all events during the billing period.

15 SDG&E also notes that SCE, in its 2009 GRC Phase 2 application (A.08-03-002), and
16 PG&E, in its Smart Meter Upgrade application (A.07-12-009), have proposed a per-event PTR
17 incentive calculation methodology.

18 Based on all of the above, SDG&E requests Commission approval to modify the PTR
19 rate it will be implementing so that customers are credited on a per-event basis and receive the
20 appropriate reward for their individual contributions to demand response. Note, however, that as
21 stated in SDG&E's PTR tariff, PTR is scheduled to be implemented after customers have an
22 AMI meter "...installed, tested, and verified according to SDG&E procedures and once the
23 required meter data management and billing system infrastructure is in place."⁹ SDG&E is
24 assessing the timing of PTR implementation based on current projections for AMI deployment
25 and completion of the meter data management and billing system modifications required to bill
26 PTR credits on a per-event basis. Accordingly, the modifications needed to change from a total
27 usage PTR to a per event PTR may impact commencement of the PTR tariff.

28

⁹ Schedule PTR, Applicability Section on Sheet 1.

1 **IV. DEFAULT CPP FOR SMALL NON-RESIDENTIAL CUSTOMERS**

2 Pursuant to the dynamic pricing implementation timeline established by the Commission
3 in D.08-07-045, PG&E was ordered to propose a default CPP rate with an underlying TOU rate
4 for small commercial customers beginning in 2011, 12 months after a customer receives an AMI
5 meter. While SDG&E’s small non-residential customer class consists of those with demands
6 less than 20 kW and PG&E’s small customers are those with demands less than 200 kW,
7 SDG&E’s small non-residential customers are similarly situated to PG&E’s small commercial
8 customers in that they are currently not required to be on a TOU rate. The Commission adopted
9 SDG&E’s proposal to implement PTR for its small, non-residential customers in D.08-02-034.

10 As AMI meters are installed and billing systems have been appropriately upgraded, these
11 customers will remain on their existing, non-time-differentiated rate and begin billing under the
12 PTR rate. SDG&E does not currently have a definitive timeline under which it would transition
13 customers from PTR to a default TOU/CPP rate. SDG&E recognizes the Commission’s fairly
14 aggressive timeline to accomplish its “desire to make dynamic pricing [CPP] ubiquitous for all
15 customers.”¹⁰ SDG&E also agrees with the Commission that small customers will require
16 significant outreach and education efforts, and must be provided with a minimum of 12 months
17 of AMI data prior to defaulting to a TOU/CPP rate. One way of implementing such a transition
18 would be to place customers on PTR, as currently required, for only one year, and then
19 immediately switch to a default TOU/CPP rate upon accumulating 12 months of data.

20 SDG&E has discovered two significant problems with this approach. First,
21 implementing PTR requires costly systems changes that would become obsolete after only one
22 year of use. Second, switching customers between rate structures so quickly will likely lead to
23 an enormous amount of customer confusion and create a significant obstacle in the efforts to
24 achieve customer acceptance of the benefits offered through dynamic pricing. As a part of a
25 preferred approach in transitioning small non-residential customers to a default TOU/CPP rate,
26 SDG&E instead proposes to eliminate the planned implementation of PTR for these customers.

27 Elimination of PTR allows SDG&E to immediately begin the process of educating these
28 customers about TOU and dynamic pricing rate structures. The education and outreach efforts
29 can continue while maintaining the existing rate structure, and for 12 months after customers

¹⁰ D.08-07-045, pg. 26.

1 receive AMI meters. At that time, customers would default to TOU/CPP¹¹ with sufficient
2 education, outreach, and data available to provide them with accurate dynamic pricing analyses.
3 Customers will be able to use their individual energy usage patterns to make fully informed
4 decisions with regard to selecting the rate option that best meets their needs. Therefore, SDG&E
5 urges the Commission to approve SDG&E's proposal to eliminate PTR for small, non-residential
6 customers. SDG&E intends to propose the detailed rate design and implementation plan for
7 default TOU/CPP for its small non-residential customers in SDG&E's next RDW.

8 Assuming the Commission approves SDG&E's requests to eliminate PTR and to
9 subsequently propose a default TOU/CPP rate for small, non-residential customers, SDG&E
10 intends to immediately begin the customer education and outreach efforts. Although SDG&E
11 has not yet developed the detailed TOU/CPP implementation plan for the small customers,
12 similar to its efforts in implementing default CPP for large customers in May 2008, SDG&E is
13 committed to working with the small customers that would be subject to default TOU/CPP to
14 ensure they are provided with the available information and tools to make informed decisions
15 and achieve demand response.

16 While the Commission has already approved funding for the implementation of PTR for
17 approximately 120,000 small non-residential customers, SDG&E will incur a reasonable level of
18 incremental expenses to roll-out a default TOU/CPP rate rather than PTR to these customers. A
19 default TOU/CPP rate is far more complex than PTR and requires more extensive and rigorous
20 outreach and education efforts. PTR is voluntary and does not place any requirements on
21 customers for participation; under default TOU/CPP customers will need to make decisions
22 about what level of capacity they want to reserve, if any, and perhaps whether to opt-out.
23 Processing these requests will result in increased administrative expenses. SDG&E also needs to
24 provide additional information, such as more detailed collateral material and complex analysis
25 tools that would not be required with PTR. In order to track the reasonable incremental costs
26 that SDG&E expects to incur as a result of implementing a TOU rate, coupled with a default
27 CPP rate, for approximately 120,000 customers that have only previously been exposed to a flat
28 rate, SDG&E requests the Commission's authorization to open a memorandum account.

¹¹ A TOU rate would be available as the otherwise applicable rate for customers that choose to opt-out of CPP.

1 SDG&E will seek recovery of costs recorded in the memorandum account in its next general rate
2 case or sooner through a different appropriate proceeding.

3
4 **V. SDG&E’S RESPONSE TO COMMISSION RESOLUTION E-4098**

5 In response to the Commission’s directive in Resolution E-4098¹², SDG&E continues to
6 believe that electric rates should be cost-based and designed in a way such that they provide all
7 customers with appropriate price signals, allowing them to make informed decisions about how
8 and when they use electricity.

9 SDG&E’s Critical Peak Pricing rate that was recently adopted by the Commission and
10 implemented by SDG&E in May of 2008 accomplishes these goals and encourages customers to
11 pursue and implement appropriate peak load reduction and peak load shifting measures.

12 Under Critical Peak Pricing, the price of electricity during CPP events is much higher
13 than the prices during all other times when a CPP event has not been activated. Customers that
14 reduce or shift their electric consumption during CPP events can significantly reduce their annual
15 electricity bills.

16 CPP is designed so that customers have the option to reserve an amount of electric
17 generation capacity and pay a fixed monthly charge, called a Capacity Reservation Charge
18 (CRC). With the CRC option, customers can reserve an amount of electricity they think will
19 meet their operational needs during a CPP event. The customer can choose to reserve any level
20 of capacity. All usage during a CPP event, up to the amount of reserved capacity, will be
21 protected from the high CPP price and be billed at the normal on-peak price. Any usage above
22 the customer's reserved capacity during a CPP event will be billed at the higher CPP price.

23 This capacity reservation option allows customers to align their exposure to high electric
24 prices with their desire for predictable and stable bills. Customers can also elect to reserve zero
25 capacity which means that all usage during a CPP event will be charged at the CPP event price.
26 Unlike a purely demand-based rate that imposes a fixed capacity charge, in the form of a
27 monthly demand charge based on the customer’s maximum on-peak demand during the month,
28 CPP allows the customer to decide how much of its load it wants to protect by reserving capacity
29 and how much it wants to expose to energy charges. Under CPP, all customers, regardless of

¹² Resolution E-4098, Ordering Paragraph 6

1 load factor, including those considering the installation of permanent load shifting (PLS)
2 technologies, can essentially design a rate structure, i.e. a self-selected level of capacity payment,
3 resulting in a self-selected level of energy-only based charges, that they believe will suit their
4 individual energy needs and budgetary requirements.

5 SDG&E believes that the CPP rate encourages customers to pursue and implement
6 appropriate peak load reduction and peak load shifting measures while providing options and
7 benefits to all customers and it is and has been committed to helping customers understand the
8 CPP rate and take advantage of the various benefits.

9

10 This concludes my prepared direct testimony.

11

1 **VI. QUALIFICATIONS OF JAMES SPURGEON**

2 My name is James Spurgeon. My business address is 8306 Century Park Court, San
3 Diego, CA 92123. I am employed by San Diego Gas & Electric Company (SDG&E) as
4 Manager of Customer Choice and Rate Support Services in the Commercial and Industrial
5 Services Department. My present responsibilities include managing the development and
6 ongoing implementation of SDG&E's Customer Choice programs, which includes Direct Access
7 and Community Choice Aggregation. I am also responsible for the oversight of policy matters
8 and back-office support activities related to the implementation of SDG&E's Commission-
9 approved tariff rates and rules applicable to large commercial and industrial customers.

10 Over the course of my employment with SDG&E, I have held numerous positions with
11 increasing levels of responsibility in Commercial Credit, Energy Efficiency Programs, and
12 Customer Service.