PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

July 7, 2014

PG&E Advice Letter 4306-E
SDG&E Advice Letter 2534-E
SCE Advice Letter 2960-E

Brian K. Cherry
Pacific Gas and Electric Company
77 Beale St., Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

Megan Caulson
San Diego Gas & Electric
8330 Century Park Court, Room 32C
San Diego, CA 92123-1548

Megan Scott-Kakures
Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, California 91770

Subject: Staff Disposition of PG&E's Advice Letter (AL) 4306-E, SDG&E's AL 2534-E, and SCE's AL 2960-E on Proposing a Joint Statewide Automated Demand Response Program Design

Dear Mr. Cherry, Ms. Caulson and Ms. Scott-Kakures:

Energy Division has determined that the joint statewide automated demand response program (AutoDR) proposed in PG&E's AL 4306-E, SDG&E's AL 2534-E, and SCE's AL 2960-E (Joint Advice Letter) is not consistent with recent demand response program guidance provided in D.14-05-025, a decision that approved improvements to existing demand response programs (including AutoDR) for years 2015-16. Because of the inconsistency, the Joint Advice Letter is hereby rejected.

An advice letter may be rejected by an Industry Division "where the advice letter or workpapers are clearly erroneous, including without limitation where there are clear inconsistencies with statute or Commission order."[1] Attachment A of this letter provides further explanation as to why the instant Joint Advice Letter is inconsistent with D.14-05-025.

---

[1] General Order 96-B, section 7.6.1.

On April 30, 2012, the Commission issued Decision (D.) 12-04-045 (Decision) adopting demand response activities and budgets for 2012 through 2014 for the three major investor-owned utilities (IOUs). In this Decision, the Commission ordered the three IOUs, Pacific Gas and Electric (PG&E), San Diego Gas & Electric (SDG&E), and Southern California Edison (SCE), to "develop a statewide (AutoDR) program with common program rules and incentive levels and submit a Tier 2 Advice Letter with a proposal no later than October 31, 2013."[2] As described in the Decision, the new statewide AutoDR program design would be implemented after 2014.[3]

AutoDR refers to automated technologies that allow a customer's equipment or facilities to reduce demand automatically in response to a demand response program event or price signal, without the customer taking manual intervention. Preliminary data suggests that AutoDR enabled customers have a higher participation rate in demand response programs and provide more consistent load shed.

On October 31, 2013 the three IOUs filed the Joint Advice Letter (PG&E AL 4306-E, SDG&E AL 2534-E, and SCE AL 2960-E) which included a proposal for a statewide AutoDR program starting post-2014. The proposed statewide program included various program components such as eligibility requirements, incentive levels, project cost caps, and performance obligations.

On November 20, 2013, the Office of Ratepayer Advocates (ORA) filed a Protest on the Joint Advice Letter. ORA recommended that the Commission reject the Joint Advice Letter and instead, require the Utilities to file an updated statewide AutoDR proposal in R.13-09-011, the Commission's rulemaking on demand response.

In response, on November 27, 2013 PG&E, on behalf of SDG&E and SCE, replied to ORA's Protest. In their response the IOUs agreed with ORA that the Joint Advice Letter may be rejected without prejudice to the IOUs' ability to refile a new advice letter regarding the AutoDR program at a later date.

See Attachment A for more details.

Please contact Russell Edwards of Energy Division at russell.edwards@cpuc.ca.gov if you have any questions.

Sincerely,

Edward Randolph
Director, Energy Division

cc: Shirley Wong, Pacific Gas and Electric
Leslie Stark, Southern California Edison
Michael Campbell, Office of Ratepayer Advocates

---

[2] D.12-04-045, pg. 225, Ordering Paragraph 58.
[3] D.12-04-045, pg. 144.

Attachment A

Summary of ORA's Protest, the IOUs' Response and Energy Division Conclusion

On November 20, 2013, the Office of Ratepayer Advocates (ORA) filed a Protest on the IOUs' Joint Advice Letter. ORA argued that the design and funding of new AutoDR proposals for post-2014 might be inconsistent with directions taken by the Commission in its demand response rulemaking, R.13-09-011.

Specifically, ORA argues that the Joint Advice Letter should be rejected and that the IOUs be directed to file an updated statewide AutoDR proposal in R.13-09-011. ORA provides three reasons for its position:

1) The proposed statewide AutoDR program design is intended for 2015 and beyond. The Commission's rulemaking on demand response (R.13-09-011) is considering improvements to existing demand response program for the same timeframe (2015-2016). ORA expressed concern that the changes offered in the Joint Advice Letter would not be in alignment with the demand response program goals in the rulemaking.

2) Considerations of funding levels were not offered in the Joint Advice Letter. ORA recommended addressing both design and funding of the proposal in the rulemaking as that would allow for a more informed evaluation of the program and help determine appropriate funding for the AutoDR program post-2014.

3) The 2011-2012 Load Impact Evaluation of California Statewide AutoDR programs and an AutoDR Process Evaluation study were to be made available at the end of 2013, and ORA believed that it would be beneficial for stakeholders to see these studies before the Commission takes action on the Joint Advice Letter.

On November 27, 2013 PG&E, on behalf of SDG&E and SCE, replied to ORA's Protest. In their response the IOUs agreed with ORA that the new rulemaking may require the IOUs to modify their post-2014 AutoDR proposal to accommodate the changes to demand response programs. The IOUs also agreed that the two studies, available at the end of 2013, should help the IOUs identify other areas of improvement on the AutoDR program designs and would help the stakeholders to better evaluate the IOUs' proposed changes.

Accordingly, the IOUs agreed with ORA that the Joint Advice Letter may be rejected without prejudice to the IOUs' ability to refile a new advice letter regarding the AutoDR program at a later date.

Energy Division concludes that there is a clear inconsistency between the Commissions' current direction for AutoDR, as expressed in D.14-05-025 and the instant Joint Advice Letter. D.14-05-025 adopted various program improvements to existing demand response programs for 'bridge years' 2015 and 2016. Among the adopted program improvements were changes to the education, outreach and application elements of the AutoDR program. Notably the decision declined to adopt a statewide program design for AutoDR, despite ORA's urging that the Commission not continue a disjointed AutoDR program.

In rejecting ORA's recommendation for a statewide AutoDR program for 2015-16, D.14-05-025 stated,

> "The Commission has previously determined that the three Utilities should create and implement a statewide AutoDR program. However, we agree with the Utilities that we should not implement a program that may require changes following the completion of our review in this proceeding. As we stated previously, the Guidance Ruling requires that changes be on a narrow basis. Thus, we find that the Utilities complied with the Guidance Ruling in regards to requesting or not requesting changes to the AutoDR program."[4]

The decision goes on to approve PG&E's proposed changes for AutoDR and directs SDG&E and SCE to implement the same changes.

The Joint Advice Letter proposes a statewide program design for AutoDR starting in 2015, which is inconsistent with the program design determinations made in D.14-05-025. Therefore the Joint Advice Letter is rejected.

The IOUs should keep in mind, however, that the Commission's rejection of the statewide design for AutoDR was based on the determination that only narrow changes to the program should be made for bridge years 2015-16. This should not be interpreted to mean that a statewide design for AutoDR has been abandoned altogether by the Commission. Unless otherwise directed by the Commission in subsequent guidance for the next demand response portfolio (post-2016), the IOUs should plan on proposing a statewide program design for AutoDR, as envisioned in D.12-04-045.

---

[4] D.14-05-025, pgs.30-31

Pacific Gas and Electric Company®

Brian K. Cherry
Vice President
Regulatory Relations

Pacific Gas and Electric Company
77 Beale St., Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

Fax: 415.973.7226

The October 31, 2013

Advice 4306-E
(Pacific Gas and Electric Company - U 39 E)

Advice 2534-E
(San Diego Gas & Electric Company – U 902 E)

Advice 2960-E
(Southern California Edison Company – U 338 E)

Public Utilities Commission of the State of California

Subject: **The Utilities Joint Statewide Automated Demand Response Program Design Proposal**

Purpose

In compliance with Decision ("D.") 12-04-045, Ordering Paragraph ("OP") 58, Pacific Gas and Electric Company ("PG&E"), on behalf of San Diego Gas & Electric Company ("SDG&E") and Southern California Edison Company ("SCE") (jointly, "the Utilities" or investor-owned utilities ("IOUs")), hereby submit for filing, its joint Automated Demand Response ("ADR") post-2014 Statewide ADR Program Design Proposal to the California Public Utilities Commission ("Commission" or "CPUC") for review and approval. The statewide program design is detailed in Attachment A.

This filing would not increase any current rate or charge, cause the withdrawal of service, or conflict with any rate schedule or rule.

Background

On April 30, 2012, the Commission issued D.12-04-045, *Decision Adopting Demand Response Activities and Budgets for 2012 through 2014*. OP 58[1] states, "Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (the Utilities') Automated Demand Response (ADR) programs are approved with the requested modifications and direct the Utilities to fund ADR technologies that interoperate using generally accepted

---

[1] D.12-04-045, OP 58, (pg. 225) [*available at*: http://docs.cpuc.ca.gov/PublishedDocs/PUBLISHED/GRAPHICS/165317.PDF]

industry open standards or protocols. During 2012, we allow an exception to the 60-40 split for all customers to maintain equitable treatment with the federal ADR grant program. The Utilities shall develop a statewide program with common program rules and incentive levels and submit a Tier 2 Advice Letter with a proposal no later than October 31, 2013."

<u>The Utilities' Proposal for a Statewide ADR Program</u>

ADR refers to automated technologies that allow a customer's equipment or facilities to reduce demand automatically in response to a Demand Response ("DR") program event or price signal, without the customer taking manual intervention. Preliminary data suggests that ADR enabled customers have a higher participation rate in DR programs and provide more consistent load shed. Data also suggests that customers on dynamic pricing rates perform better with ADR.[2]

A. Program Overview

ADR refers to automated technologies that allow a customer's equipment or facilities to reduce demand automatically in response to a DR program event or price signal, without the customer taking manual intervention. ADR program offers customers an incentive to install ADR equipment that enhances their ability to reduce load during DR program events. In general the ADR program offers the following examples of equipment that qualifies for incentives:

- Wired and wireless controls for electrical end uses such lighting, HVAC, motors, pumps, fans, air compressors, process equipment, audio/video equipment, etc.;
- Energy Management hardware and software;
- Energy Management Systems integration, including repairs/upgrades/ reprogramming of existing controls.

Customers who choose to participate in ADR may undergo an energy audit to determine strategies and equipment that are appropriate for the customer's facility. If the customer decides to move forward and install the recommended ADR-enabling equipment, the Utilities propose to base the ADR incentive payments on the estimated kW reductions approved during the project reservation review. A post-installation load shed test will be conducted to validate that the planned measures were implemented and the calculated load reductions from metered results were in alignment with the reservation. ADR customers are required to participate in a qualifying DR program, from which customers may receive on-going incentives based on their performances during event hours.

---

[2] A CalMAC study on the 2011-2012 Load Impact Evaluation of California Statewide Automated Demand Response Programs and an ADR Process Evaluation Study will be available by the end of 2013.

Preliminary data suggests that ADR customers have a higher participation rate in DR programs and provide more consistent load shed. Data also suggests that customers on dynamic pricing rates perform better with ADR.

In D.12-04-045, the CPUC stated that "…the Utilities proposed conceptually similar ADR programs with differences in certain details (incentive levels, verification methods, eligible DR programs, allowed technologies, etc.)."[3]

B. Customer and Technology Eligibility

All business customers of the Utilities, including industrial, commercial, agricultural, Community Choice Aggregation ("CCA"), and Direct Access ("DA") customers, are eligible, providing they meet program requirements.

The Utilities will fund qualified ADR technologies that interoperate using generally accepted industry open standards or protocols. For equipment to communicate with the Utilities' Demand Response Automation Server, they must be OpenADR 2.0 compliant and certified by the OpenADR Alliance and support Locational Dispatch requirements.

Refer to the Automated Demand Response Statewide Program Design Proposal (Attachment A) for a more detailed outline of the proposed program requirements.

C. *Eligible DR Programs*

At this time, the Utilities do not propose any changes to eligible DR programs but reserve the opportunity to recommend adjustments going forward based on the outcome of the statewide ADR process evaluation and load impact studies scheduled by the end of 2013. There may be additional opportunities in the near future for ADR to support new DR programs where fast DR is required for energy balancing and ancillary services services type of products in order to address intermittent renewable resources challenges. SDG&E, SCE, and PG&E will allow Base Interruptible Program ("BIP") to be an eligible program for ADR incentives. However, SCE and PG&E will only allow BIP participation if the load is bid into the CAISO market through Proxy Demand Response or Reliability Demand Response Resource used to address flexible load Resource Adequacy.

D. Incentives

The Utilities recommend to maintain the 60-40 incentives structure approved in D.12-045-045 so that we can better evaluate the performance impacts on a larger customer population. A minor modification to the 60-40 payment schedule will be implemented to allow a Participant to receive the second payment (Payment 2)

---

[3] D.12-04-045, (pg. 139) [*available at*: http://docs.cpuc.ca.gov/PublishedDocs/PUBLISHED/GRAPHICS/165317.PDF]

after participating in a full DR season (typically between May 1 and October 31) rather than one year, as the Utilities seldom trigger DR events during the winter season.

We propose that eligible ADR non-lighting measures be incented at $200 per kW, with ADR enabled lighting measures incented at a higher rate per kW of $350 per kW.

Technology Category	Incentive Rate ($ per kW)
Automated Demand Response Lighting Measures	$350
Automated Demand Response HVAC/Other Measures	$200

E. Project Cost Cap

The Utilities will cap incentives at 100 percent of the actual and reasonable cost of an ADR project, not to exceed $350/kW for lighting and $200/kW for non-lighting ADR measures. If ADR equipment also qualifies for other investor-owned utility ("IOU") rebates, such as Energy Efficiency incentives, total ADR and other utility incentives combined should be equal or less than the project cost.

In order to promote diversity in the number and types of projects enrolled in the ADR program, there will be a single customer cap of 10 percent of total incentive dollars based on the individual Utilities ADR program incentive budget.

F. Performance Monitoring and Compliance

During the subsequent two DR program seasons after the Participant has received Payment 2, the Utilities will track DR event participation and maintain regular communications with the Participant to provide DR event performance feedback and help resolve any difficulties.

Participants are expected to remain enrolled for 36 months following Payment 1 (the 60 percent payment) of their ADR incentives. Participants who drop out of their DR programs within 36 months will forfeit their incentive, including any incentive already paid to Participant. The calculated amount of the incentive refund is prorated based on any unfulfilled obligations.

<u>Protests</u>

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, facsimile or E-mail, no later than November 20, 2013, which is 20 days after the date of this filing. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: EDTariffUnit@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 shall also be sent to PG&E and other IOUs either via E-mail or U.S. mail (and by facsimile, if possible) at the addresses shown below on the same date it is mailed or delivered to the Commission:

For PG&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, California 94177

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

For SDG&E:

Attn: Megan Caulson
Regulatory Tariff Manager
8330 Century Park Court, Room 32C
San Diego, CA 92123-1548
Facsimile No. (858) 654-1879
E-mail: MCaulson@semprautilities.com

For SCE:

Megan Scott-Kakures
Vice President, Regulatory Operations
Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, California 91770
Facsimile: (626) 302-4829
E-mail: AdviceTariffManager@sce.com

Leslie E. Starck
Senior Vice President, Regulatory Policy & Affairs
c/o Karyn Gansecki
Southern California Edison Company
601 Van Ness Avenue, Suite 2030
San Francisco, California 94102
Facsimile: (415) 929-5540
E-mail: Karyn.Gansecki@sce.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

Effective Date

The Utlities request that this Tier 2 advice filing become effective on regular notice, November, 30, 2013, which is 30 calendar days after the date of filing.

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 parties on the service lists for Application ("A.") 11-03-001, Rulemaking ("R.") 07-01-041 and R.13-09-011. Address changes to the IOUs' General Order 96-B service lists should be directed to the IOUs' email addresses shown above. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter filings can also be accessed electronically at: http://www.pge.com/tariffs.

Sincerely,

Brian Cherry /slw

Vice President, Regulatory Relations

Attachment A - Post 2014 Automated Demand Response Statewide Program Proposal

cc: Service Lists A.11-03-001, R.07-01-041 and R.13-09-011

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 E)**

Utility type:	Contact Person: **Shirley Wong**
☑ ELC ☐ GAS	Phone #: **(415) 972-5505**
☐ PLC ☐ HEAT ☐ WATER	E-mail: **slwb@pge.com and PGETariffs@pge.com (also see E-mails under AL "Notice" section)**

EXPLANATION OF UTILITY TYPE	(Date Filed/ Received Stamp by CPUC)
ELC = Electric GAS = Gas ☐	
PLC = Pipeline HEAT = Heat WATER = Water	

Advice Letter (AL) #: **4306-E, et al.** **Tier: 2**

Subject of AL: **The Utilities Joint Statewide Automated Demand Response Program Design Proposal**

Keywords (choose from CPUC listing): **Compliance**

AL filing type: ☐ Monthly ☐ Quarterly ☐ Annual ☑ One-Time ☐ Other ____________________

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: **Decision 12-04-045**

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 AL:

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: N/A

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: **November 30, 2013** No. of tariff sheets:

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:

Service affected and changes proposed:

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
ED Tariff Unit
505 Van Ness Ave., 5th Floor
San Francisco, CA 94102
E-mail: EDTariffUnit@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 A

Post 2014 Automated Demand Response Statewide Program Proposal

Jointly proposed by: Pacific Gas and Electric (PG&E), San Diego Gas & Electric (SDG&E), and Southern California Edison Company (SCE)

Table of Contents

Purpose

In compliance with Decision 12-04-045, Ordering Paragraph (OP) 58, Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE) (jointly, "the Utilities"), hereby submit this joint Automated Demand Response ("ADR") Post-2014 Statewide program design proposal to the California Public Utilities Commission (CPUC).

As stated in Ordering Paragraph 58[1], "Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (the Utilities') Automated Demand Response (ADR) programs are approved with the requested modifications and direct the Utilities to fund ADR technologies that interoperate using generally accepted industry open standards or protocols. During 2012, we allow an exception to the 60-40 split for all customers to maintain equitable treatment with the federal ADR grant program. The Utilities shall develop a statewide program with common program rules and incentive levels and submit a Tier 2 Advice Letter with a proposal no later than October 31, 2013."

[1] D.12-04-045, OP 58, (pg. 225) [*available at*: http://docs.cpuc.ca.gov/PublishedDocs/PUBLISHED/GRAPHICS/165317.PDF]

Current 2012-2014 ADR Technology Incentives (TI) Program

1. General Program Overview

Automated DR (ADR) refers to automated technologies that allow a customer's equipment or facilities to reduce demand automatically in response to a DR program event or price signal, without the customer taking manual interventions. The ADR program offers customers an incentive to install ADR equipment that enhances their ability to reduce load during DR program events. In general, the ADR Technology Incentives (TI) program offers measure incentives for the following examples of equipment that qualify:

- Wired and wireless controls for electrical end uses such as lighting, HVAC, motors, pumps, fans, air compressors, process equipment, audio/video equipment, etc.;
- Energy Management hardware and software;
- Energy Management Systems, including repairs/upgrades/reprogramming of existing controls.

Customers who choose to participate in ADR may undergo an energy audit to determine strategies and equipment that are appropriate for the customer's facility. If the customer decides to move forward and install the recommended ADR-enabling equipment, a load shed test is conducted after the project is completed. The result of this test (measured in kW) serves as the basis for the ADR incentive payment that the customer receives. ADR customers are required to participate in a qualifying DR program, from which customers may receive on-going incentives based on their performances during event hours.

Preliminary data suggests that ADR enabled customers have a higher participation rate in DR programs and provide more consistent load shed. Data also suggests that customers on dynamic pricing rates perform better with ADR[2].

In D.12-04-045, the CPUC stated that "…the Utilities proposed conceptually similar ADR programs with differences in certain details (incentive levels, verification methods, eligible DR programs, allowed technologies, etc.)."[3] The following sections address each of those differences in detail in the 2012-2014 IOU's ADR programs:

1.1. Incentive Levels

In the 2012-2014 DR Application, both SDG&E and SCE filed for $300 per kW for ADR technology incentives and PG&E requested incentives for non-ADR enabling technology of $125 per kW and tiered ADR incentives that range from $200 for standard, to $350-$400 per kW for advanced, ADR technologies as indicated in Table 1.1.

[2] A CalMAC study on the 2011-2012 Load Impact Evaluation of California Statewide Automated Demand Response Programs and an ADR Process Evaluation Study will be available by the end of 2013.
[3] D.12-04-045, (pg. 139) [*available at*: http://docs.cpuc.ca.gov/PublishedDocs/PUBLISHED/GRAPHICS/165317.PDF]

Table 1.1
2012-2014 DR Application Incentive Rates ($ per kW)

Technology Category	PG&E	SCE	SDG&E
Semi-Automated Demand Response	$125	Not Available	Not Available
Automated Demand Response	$200	$300	$300
Emerging & Advanced Technology HVAC/R	$350	Not Available	Not Available
Emerging & Advanced Technology Lighting	$400	Not Available	Not Available

The above incentive rate structure was approved by the CPUC in D. 12-04-045. The Utilities also complied with Ordering Paragraph 58 by delaying implementation of the 60-40 incentive structure until January 1, 2013. This new schedule allowed for the first 60% of the technology incentive payable upon project completion and up to 40% of the incentive payable after a year of operation, with the payment prorated based on a customer's actual performance in a DR program.

1.2. Verification Methods

In D.12-04-045 the CPUC stated that the Utilities proposed conceptually similar ADR programs with differences in verification methods[4], when in fact, all three Utilities deploy the same type of post-installation verification methodology. Verifications include site inspections and two-hour simulated test events to demonstrate that an installed system is able to reduce demand automatically in response to a DR program event signal. Where the IOUs differ is in the incentive payment calculation for the dispatchable kW that is verified:

- PG&E ADR incentives are paid based on the estimated kW reserved during the engineering review and funding reservation stage and

- SCE and SDG&E ADR incentives are paid based on the tested load reduction using recorded meter data from the two-hour simulated event.

For all three Utilities, if there is a significant discrepancy between the estimated kW reserved and the tested load reduction, additional analysis is performed to determine the cause of the discrepancy and the results are either conformed or a re-test is performed.

1.3. Eligible DR Programs

[4] D-12-04-045, 7.7.1.3. Discussion, Page 143. [*available at*: http://docs.cpuc.ca.gov/PublishedDocs/PUBLISHED/GRAPHICS/165317.PDF]

In 2012-2014 program cycle, the Utilities are offering ADR incentives for similar price-responsive DR programs, with the exception of SDG&E, which also included the Base Interruptible Program (BIP), a reliability-based DR program. ADR customers were required to be enrolled in a qualifying DR program for a minimum of 36 months. Critical Peak Pricing is also known as Summer Advantage Incentives for SCE and Peak Day Pricing for PG&E.

Table 1.3
ADR-Eligible DR Programs

Utility	Aggregator Managed Portfolios (AMP)	Base Interruptible Program (BIP)	Capacity Bidding Program (CBP)	Critical Peak Pricing (CPP)	Real Time Pricing (RTP)
PG&E	Yes	No	Yes	Yes	N/A*
SCE	Yes	No	Yes	Yes	Yes
SDG&E	N/A*	Yes	Yes	Yes	N/A*

*N/A – DR Program(s) not offered by Utility.

1.4. Allowed Technologies

In its 2012-2014 DR Application (A.11.03.001)[5], PG&E proposed incentives for OpenADR compliant technologies while the other IOUs did not stipulate a specific communications standard. In the Decision, the Commission directed the Utilities to fund ADR technologies that interoperate using generally accepted industry open standards or protocols and not limit incentives to only OpenADR-based technologies.

[5] PG&E DR Application Testimony for 2012-2014 [*available at*: https://www.pge.com/regulation/DemandResponse2012-2014-Projects/Hearing-Exhibits/PGE/2011/DemandResponse2012-2014-Projects_Exh_PGE_20110301_ExhPGE-01_215922.pdf]

POST 2014 ADR Statewide Program Proposal

In compliance with Ordering Paragraph 58 to develop a statewide program for post 2014[6], the Utilities hereby submit this joint ADR Program Design Proposal with statewide (SW) program rules, incentive levels, and application processing.

2. Eligibility Requirements

Eligibility for participation in the post 2014 ADR SW program will be based on meeting all of the following customer eligibility and equipment requirements (or allowed technologies).

2.1. Customer Eligibility

All business customers of the Utilities, including industrial, commercial, agricultural, Community Choice Aggregation (CCA), and Direct Access (DA) customers, are eligible if they:

- Have interval or smart metering,
- have a minimum of four months of interval data (weather-sensitive load may require four months of summer data),
- meet minimum eligibility requirements of the DR program they will participate in; and,
- have a minimum on-peak load of 20 kW.

2.2. Allowed Technologies

The Utilities will fund all ADR technologies that interoperate using generally accepted industry open standards or protocols. For equipment to communicate with the Utilities' Demand Response Automation Server, they must be OpenADR 2.0 compliant and certified by the OpenADR Alliance. All ADR technologies must be able to support the Utilities' Locational Dispatch requirements.

Qualifying equipment includes wired and wireless controls for lighting, Heating, Ventilating, and Air Conditioning (HVAC), motors, air compressors, pumps, and processing equipment; Energy Management Systems (EMS) hardware and software, including upgrades and reprogramming of existing controls; and thermostats and other devices able to receive ADR signals.

2.3. Eligible DR Programs

At this time, the Utilities do not propose any changes to qualifying DR programs but reserve the right to make adjustments based on the outcome of the statewide ADR

[6] Current DR OIR is considering the bridge funding term for post 2014 DR activities

process evaluation and load impact studies due by the end of 2013. We may also have additional opportunities to support programs where fast DR is required for energy balancing and ancillary services type of products in order to address intermittent renewable resources challenges. SDG&E, SCE and PG&E will allow BIP to be an eligible program for ADR incentives. However, SCE and PG&E will only allow BIP participation if the load is bid into the CAISO market through Proxy Demand Response or Reliability Demand Response Resource used to address flexible load Resource Adequacy.

3. ADR Incentives

The Utilities recommend that we continue to utilize the 60-40 incentives structure approved in D.12-045-045 so that we can better evaluate the customer's DR performance as a result of the ADR enabling technology. The 60-40 payment structure will allow a Participant to receive the second payment after participating in a full DR season (typically between May 1 and October 31), as the IOUs seldom trigger DR events during the winter season. Below is a snapshot of ADR 60-40 enrollments by Utilities. No enrolled 60-40 Participants have completed their ADR projects as of September 2013.

Table 3
ADR Enrollments with 60-40 as of September 2013

Utility	No. of Customers	No. of Sites	Estimated MWs	Estimated Incentives ($000)
PG&E	30	49	25.0	$5,000
SCE	9	31	5.4	$1,612
SDG&E	7	11	.9	$281

3.1. Incentive Rates

The Utilities propose that all ADR enabled non-lighting loads be incented at $200 per kW, with ADR lighting measures be incentivized at a higher rate of $350 per kW (see Table 3.1.1).

Table 3.1.1
Post 2014 Incentive Rates

Technology Category	Incentive Rate ($ per kW)
Automated Demand Response Lighting Measures	$350
Automated Demand Response HVAC/Other Measures	$200

PG&E has effectively demonstrated that a lower $/kW (i.e., $200) for HVAC and other measures is enough to maintain interest in the ADR program, even with the 60-40 incentive structure (see Table 3.1.2). The other two Utilities agree with this lower incentive rate strategy. This proposed incentive structure will improve the cost effectiveness of the Demand Response programs that utilize ADR. Based on the Utilities' experience, DR impacts from measures associated with cooling and process loads are weather or production sensitive and more difficult to forecast to achieve the tested load shed values during actual event days. Lighting loads are non-seasonal and have consistent on-peak demand, resulting in more reliable estimates of DR load potential.

Table 3.1.2
PG&E 2012-2014 ADR Enrollments as of September 2013

Incentive Structure	Tech Description	Incentive Rate/kW	Projects	Sites	kW	Incentives ($000)
100%	Standard Technologies	$200	16	18	22,428	$ 3,914
60-40	Standard Technologies	$200	33	49	25,000	$ 5,000
Total			**49**	**67**	**47,428**	**$ 8,914**

.

3.2 Project Cost Caps

The Utilities will cap incentives at 100 percent of the actual and reasonable cost of a project, not to exceed $350/kW for lighting and $200/kW for non-lighting measures. If ADR equipment also qualifies for other IOU rebates, such as Energy Efficiency incentives, total DR and other utility incentives combined should be equal or less than the project cost.

In order to promote diversity in the number and types of projects enrolled in the ADR program, there will be a single customer cap of 10% of total incentive dollars based on the individual Utilities program budget.

3.3 Eligible Project Costs

All equipment, labor and services directly related to providing the ADR solution are eligible for incentives under the program. Incentives will only be paid for completed projects and technologies must be under Manufacturer warranty for a minimum of three years.

The following items may be included as part of the project costs towards installing a system:

- Direct labor costs associated with the ADR measure
- ADR Equipment costs, including sales tax and freight (must be customer-owned)

3.4 Ineligible Project Costs

The following items are ineligible for ADR incentives:

- Non-ADR related labor and equipment
- Leased equipment
- Recurring costs (e.g., DSL lines)
- Service and maintenance contracts

4. Application Process

All ADR projects have three key project phases: Eligibility and Pre-Installation, Post-Installation Verification, and Project Approval and Incentive Payment.

4.1. Eligibility and Pre-Installation Phase

The ADR process starts with the customer submitting an ADR application for incentives. The applications will be processed and incentive funding reserved in the order received. Technical and Project Eligibility reviews will be performed for each project prior to funding approval.

4.1.1. Technical and Project Eligibility Review

The Utilities will collect information about the customer and customer facilities to screen eligible participants.

Interval data will be collected at this step to verify the customer’s account information and presence of electric load during system peak hours. Electric data and other customer information will be provided to the customer’s ADR system implementer once the customer completes and submits the Customer Information Service Request (CISR) form to the Utility that serves the customer.

Customer or their system implementer must submit an ADR project proposal along with the application for incentives. At minimum, the proposal will contain vendor and customer contact information, a facility overview, proposed load control strategies, measure descriptions, building(s) information, average and maximum demand values, a control system diagram, an estimated project completion date, and estimated project costs. The proposed ADR measures and the dispatchable kW calculations will be reviewed by a Utility-commissioned engineer for eligibility and reasonableness with the Customer’s load profile.

4.1.2. Pre-Installation Inspection.

After passing the technical and project eligibility review, and based on the size of the proposed ADR project, the Utility may require a pre-installation inspection

(Utilities may also perform random pre-installation inspections to maintain program quality). Inspection activities will typically involve a site visit with the customer (e.g., the facility or energy manager), the ADR system implementer, and a utility-commissioned engineer. Previous customer energy audit reports may be used for reference.

The pre-installation inspection will be conducted to ascertain that:

- The customer facility and operations are accurately depicted in the application and project proposal
- All existing equipment listed in the application are installed and operational
- Proposed measures or technologies are not pre-existing
- Estimates of electrical demand are accurate - Spot measurement may be taken, if applicable

If the project fails the pre-installation inspection, the application may be declined or must be resubmitted after issues are cured.

4.1.3. Project Approval and Incentive Reservation

After passing technical and project eligibility reviews or the pre-installation inspection if one was required, the project will be approved and incentive funding is reserved. Upon receipt of approval, the customer becomes a program participant ("Participant") and is authorized to begin installation. Significant changes to the project scope after the Utility approves the ADR application may require a revised application and/or installation report and incremental incentives will be subject to funding availability.

4.2. Post-Installation Verification Phase

Once the Participant has installed and tested the ADR system, the Participant will be required to submit project invoices and a system commissioning report for review. A utility-engineer will perform the post-installation verification, project documentation review, and verification of eligible project costs. The invoices that the Participant submits must be of a sufficient level of detail to allow the Utility to verify the equipment components installed during site inspection.

ADR systems relying on the Utilities' Demand Response Automation Servers for event or pricing signals to shed load must be OpenADR 2.0 compliant and certified by the OpenADR Alliance.

4.2.1. Measurement and Verification (M&V)

During post-installation inspection at a Participant's facility, a simulated two-hour DR program event using the ADR system will be conducted to validate that the planned measures were implemented and the calculated load reductions from metered results were in alignment with the reservation.

The IOUs have agreed to standardize the load reduction calculations by adopting PG&E's methodology of paying incentives based on the estimated kW reductions approved during the project reservation review (see 4.1.3). If significant discrepancies are found between the estimation and the load reduction as recorded at the meter, further analysis or a re-test may be required. The percent discrepancy considered will be determined from historical empirical data using a standard deviation analysis.

4.3 ADR Program Incentive Payments Phase

Upon completion of the M&V, Participants are entitled to 60% of the approved incentive amount (Payment 1), which is the lesser of M&V kW times the appropriate incentive rate or actual project cost. The remaining 40% (Payment 2) is paid after a full DR season, based on actual performance in DR events. Customers have the option to designate the incentive payments to an Authorized Agent.

5. Performance Monitoring and Compliance

During the subsequent two DR program seasons after the Participant has received Payment 2, the IOUs will track DR event participation and maintain regular communications with the Participant to provide DR event performance feedback and help resolve any difficulties.

Participants are expected to remain enrolled for 36 months following Payment 1 (the 60% payment) of their ADR incentives. Participants who drop out of their DR programs within 36 months will forfeit their remaining incentive, including any incentive already paid to Participant. The calculated amount of the incentive refund is prorated based on any unfulfilled obligations.

6. Market Issues – Codes and Standards

Recent changes and improvements in the State of California new construction code (Title 24) could have program consequences to the delivery and persistence of ADR measures for existing buildings post 2014. The Utilities recommend that further analysis of the potential impact to the ADR program be examined through market characterization research and a focused statewide market potential study during 2013 to verify the impact of these changes. This research would develop a more comprehensive assessment of the market impacts and business as usual (BAU) technology adoption of ADR by customers in the non-residential segment. Absent this market data at the present time, the IOUs recommend that the aforementioned changes be implemented to the ADR program incentives for post 2014 implementation.

PG&E Gas and Electric
Advice Filing List
General Order 96-B, Section IV

1st Light Energy
AT&T
Alcantar & Kahl LLP
Anderson & Poole
BART
Barkovich & Yap, Inc.
Bartle Wells Associates
Braun Blaising McLaughlin, P.C.
CENERGY POWER
California Cotton Ginners & Growers Assn
California Energy Commission
California Public Utilities Commission
California State Association of Counties
Calpine
Casner, Steve
Center for Biological Diversity
City of Palo Alto
City of San Jose
Clean Power
Coast Economic Consulting
Commercial Energy
County of Tehama - Department of Public Works
Crossborder Energy
Davis Wright Tremaine LLP
Day Carter Murphy
Defense Energy Support Center
Dept of General Services
Division of Ratepayer Advocates
Douglass & Liddell
Downey & Brand
Ellison Schneider & Harris LLP
G. A. Krause & Assoc.
GenOn Energy Inc.
GenOn Energy, Inc.
Goodin, MacBride, Squeri, Schlotz & Ritchie
Green Power Institute
Hanna & Morton
In House Energy
International Power Technology
Intestate Gas Services, Inc.
K&L Gates LLP
Kelly Group
Linde
Los Angeles Dept of Water & Power
MAC Lighting Consulting
MRW & Associates
Manatt Phelps Phillips
Marin Energy Authority
McKenna Long & Aldridge LLP
McKenzie & Associates
Modesto Irrigation District
Morgan Stanley
NLine Energy, Inc.
NRG Solar
Nexant, Inc.
North America Power Partners
Occidental Energy Marketing, Inc.
OnGrid Solar
Pacific Gas and Electric Company
Praxair
Regulatory & Cogeneration Service, Inc.
SCD Energy Solutions
SCE
SDG&E and SoCalGas
SPURR
San Francisco Public Utilities Commission
Seattle City Light
Sempra Utilities
SoCalGas
Southern California Edison Company
Spark Energy
Sun Light & Power
Sunshine Design
Tecogen, Inc.
Tiger Natural Gas, Inc.
TransCanada
Utility Cost Management
Utility Power Solutions
Utility Specialists
Verizon
Water and Energy Consulting
Wellhead Electric Company
Western Manufactured Housing Communities Association (WMA)