

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
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October 21, 2019

Advice Letter 5629-E

Erik Jacobson
Director, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

SUBJECT: San Diego Gas and Electric Company, Pacific Gas and Electric Company and Southern California Edison Company Auto Demand Response Control Incentives Guidelines and Adopted Policies Submitted Pursuant to Decision 18-11-029.

Dear Mr. Jacobson:

Advice Letter 5629-E is effective as of October 3, 2019.

Sincerely,

A handwritten signature in cursive script that reads "Edward Randolph".

Edward Randolph
Deputy Executive Director for Energy and Climate Policy/
Director, Energy Division



Clay Faber - Director
Regulatory Affairs
8330 Century Park Court
San Diego, CA 92123

September 3, 2019

ADVICE LETTER 3427-E

(San Diego Gas & Electric Company - U902-E)

ADVICE LETTER 5629-E

(Pacific Gas and Electric Company – U39-E)

ADVICE LETTER 4069-E

(Southern California Edison Company – U338-E)

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

SUBJECT: SAN DIEGO GAS AND ELECTRIC COMPANY, PACIFIC GAS AND ELECTRIC COMPANY AND SOUTHERN CALIFORNIA EDISON COMPANY AUTO DEMAND RESPONSE CONTROL INCENTIVES GUIDELINES AND ADOPTED POLICIES SUBMITTED PURSUANT TO DECISION 18-11-029

PURPOSE

Pursuant to Ordering Paragraph (“OP”) 8 of California Public Utilities Commission (“CPUC” or “Commission”) Decision (“D.”) 18-11-029, San Diego Gas & Electric Company (“SDG&E”), Southern California Edison Company (“SCE”), and Pacific Gas and Electric Company (“PG&E”), (collectively, the “IOUs”) respectfully submit its joint updates to the Auto Demand Response Control Incentives Guidelines and Adopted Policies (herein referred to as “Guidelines”).

BACKGROUND

On January 17, 2017, each IOU filed an application with the CPUC for approval of their demand response (DR) portfolio and budgets for the program period 2018-2022. On December 21, 2017, the CPUC issued D.17-12-003 adopting PG&E’s multi-party settlement, and the IOUs’ DR budgets to conduct DR programs, pilots and associated activities for program years 2018 through 2022. D.17-12-003 also determined the proceeding (A.17-01-012 et al.) should remain open to consider unresolved issues associated with auto demand response (ADR).

Pursuant to D.17-12-003 OP 29, on February 20, 2018, the IOUs submitted revised ADR guidelines, “The Auto Demand Response Guidelines and Adopted Policies (Guidelines).” On May 8, 2018, the assigned Administrative Law Judge (ALJ) facilitated a workshop to discuss the updates to the Guidelines. During the workshop, stakeholders shared operational concerns of offering ADR control incentives to Demand Response Auction Mechanism (DRAM) participants, fundamental concerns of offering ADR incentives for battery storage controls and discussed ADR program incentive cost effectiveness. On June 15, 2018, the assigned ALJ issued a ruling directing parties to respond to a series of questions on several issues including the Guidelines,

ADR controls definition, Reliability Demand Response Resources (RDRR), cost causation, frequency of incentives, incremental load reduction, cost effectiveness and ADR battery storage control policies. Parties filed responses to the ALJ's questions on July 20, 2018, and reply comments on August 3, 2018.

On December 10, 2018, the CPUC issued D.18-11-029 which adopted policy issues, including several ADR policies and required these policies be documented in the Guidelines. In compliance with D.18-11-029 OP 7, PG&E submitted a Tier 1 advice letter on behalf of the IOUs including the updated Guidelines on January 24, 2019. D.18-11-029 also described the Guidelines as a living document and established an annual process to address technical and evolving ADR issues on an ongoing basis. D.18-11-029 identified six issues in OP 9 to be addressed in 2019 which the IOUs submitted individual proposals on these issues on May 1, 2019. A workshop was held on June 4, 2019 to compare and discuss the IOUs proposals. Based upon the discussion at the workshop, the IOUs were asked to develop a joint proposal that the IOUs submitted to the DR service lists on July 19, 2019¹, which SDG&E subsequently filed on August 2, 2019. No comments on the IOUs' joint proposal or draft Guidelines were received from stakeholders.

DISCUSSION OF UPDATES

Below is the list of the six issues in D.18-11-029, OP 9., (issues (e.) and (f.) are directed at PG&E).

- a) Review of the approach to calculate control incentives;
- b) Implementation of the policy that RDRR are not eligible to receive auto demand response control incentives;
- c) Determination of the frequency of control incentives;
- d) Calculation of incentive cost-effectiveness;
- e) Development of a list of residential ADR enabled end-use devices to be considered by PG&E for eligibility for an ADR incentive; and
- f) Development of criteria to determine the order for PG&E to evaluate load impacts attributable to the devices.

In addition, D.18-11-029 required that the Utilities track the incremental load reduction provided by ADR controls and determine whether the load reduction fully covers additional cost of the control incentives allocated to demand response programs². Based on discussion with Energy Division Staff, the IOUs have included their information and their method for calculating the incremental load reduction; this is reflected in the updated Guidelines under issue (d).

The following summarizes the IOUs joint proposal to each of the six ADR issues. If applicable, the IOUs also provide a reference to changes in the Guidelines to reflect these proposals.

- | | |
|------------------------|---|
| Proposal to issue (a): | Until further research is performed and completed, the IOUs do not propose any changes to the calculation of control incentives. |
| Proposal to issue (b): | No proposal needed. On July 12, 2019, the Commission issued D.19-07-009, Decision Addressing Auction Mechanism, Baselines, and Auto Demand Response for Battery Storage. Ordering |

¹ The joint IOU proposal was issued to the service lists for proceedings A.17-01-012 et al (2018-2022 DR Application) and R.13-09-011 (DR Order Instituting Rulemaking (OIR)).

² D.18-11-029 at 47

Paragraph 6 of the Decision excludes the procurement of RDRR in the DRAM. This policy alleviates the need for the IOUs to develop and implement a policy to verify that customers participating in DRAM, as an RDRR, from receiving ADR control incentives.

- Proposal to issue (c): The IOUs propose that customers should be eligible for ADR Incentives once every 7.5 years for controls of the same end use, as long as a control does not receive more than one incentive. This change is reflected in the Guidelines in Appendices A, B, and C of Attachment A.
- Proposal to issue (d): The IOUs' proposals regarding cost-effectiveness:
- i) ADR incentives should be allocated in line with the forecasted load reduction from new ADR participants in each program. ADR administrative costs should also be allocated based on total load reduction by the DR program. This change is reflected in the Guidelines in Appendix D of Attachment A.
 - ii) The Guidelines should include a calculation to determine whether the load reduction fully covers the additional costs of the control incentives. This change is reflected in the Guidelines in Appendix E of Attachment A.
- Proposal to issue (e): PG&E proposes to resume their stakeholder process as outlined in the settlement agreement to develop a list of residential end uses devices to be considered for eligibility for an ADR incentive.
- Proposal to issue (f): PG&E proposes to formally postpone this second part of the residential project until additional research has been completed.

In addition to the proposals identified above, the Guidelines are updated to reflect the closure of the SDG&E Small Commercial Energy Management Pilot³, which was authorized in response to Assembly Bill 793, add related Auto Demand Response policies from D.19-07-009, and to include other non-substantive edits to improve clarity throughout the document.

EFFECTIVE DATE

SDG&E believes that this submittal is subject to Energy Division disposition and should be classified as Tier 2 (effective after disposition) and respectfully requests an approval date of October 3, 2019, 30 days after the date submitted.

PROTEST

Anyone may protest this Advice Letter to the California Public Utilities Commission. The protest must state the grounds upon which it is based, including such items as financial and service impact, and should be submitted expeditiously. The protest must be made in writing and must be received no later than September 23, 2019, which is 20 days of the date this Advice Letter was submitted with the Commission. There is no restriction on who may submit a protest. The address for mailing or delivering a protest to the Commission is:

CPUC Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102

Copies of the protest should be sent via e-mail to the attention of the Energy Division at EDTariffUnit@cpuc.ca.gov. A copy of the protest should also be sent via e-mail to the address shown below on the same date it is mailed or delivered to the Commission.

For SDG&E:

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Regulatory Tariff Manager
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For SCE:

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For PG&E:

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Director, Regulatory Relations
c/o Megan Lawson
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NOTICE

A copy of this submittal has been served on the utilities and interested parties shown on the attached list, including interested parties in A.17-01-012, et al and R.13-09-011, by providing them a copy hereof either electronically or via the U.S. mail, properly stamped and addressed. Address changes should be directed to SDG&E Tariffs by email to SDG&ETariffs@sdge.com.

CLAY FABER
Director – Regulatory Affairs



ADVICE LETTER SUMMARY

ENERGY UTILITY



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

Company name/CPUC Utility No.: San Diego Gas & Electric Company (U902)

Utility type:

- ELC GAS WATER
 PLC HEAT

Contact Person: Christina Sondrini

Phone #: 858-636-5736

E-mail: CSondrini@sdge.com

E-mail Disposition Notice to: CSondrini@sdge.com

EXPLANATION OF UTILITY TYPE

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

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 3427-E, et.al.

Tier Designation: 2

Subject of AL: San Diego Gas and Electric, Pacific Gas and Electric and Southern California Edison's Joint Submittal of the Auto Demand Response Control Incentives Guidelines and Adopted Policies Pursuant to Decision 18-11-029

Keywords (choose from CPUC listing): Demand Response

AL Type: Monthly Quarterly Annual One-Time Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: D.18-11-029

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: N/A

Summarize differences between the AL and the prior withdrawn or rejected AL: N/A

Confidential treatment requested? Yes No

If yes, specification of confidential information: N/A

Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information: N/A

Resolution required? Yes No

Requested effective date: 10/3/19

No. of tariff sheets: 0

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: N/A

Service affected and changes proposed¹: N/A

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

¹Discuss in AL if more space is needed.

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

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102
Email: EDTariffUnit@cpuc.ca.gov

Name: Megan Caulson
Title: Regulatory Tariff Manager
Utility Name: San Diego Gas & Electric Company
Address: 8330 Century Park Court; CP 31D 92123
City: San Diego State: California
Telephone (xxx) xxx-xxxx: (858) 654-1748
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Email: MCaulson@sdge.com

Name: SDG&E Tariff Department
Title:
Utility Name: San Diego Gas & Electric Company
Address: 8330 Century Park Court; CP 31D 92123
City: San Diego State: California
Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email: SDGETariffs@sdge.com

General Order No. 96-B
ADVICE LETTER SUBMITTAL MAILING LIST

cc: (w/enclosures)

Public Utilities Commission

Office of Ratepayer Advocates (ORA)

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M. Ghadessi

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AT&T

Regulatory

Barkovich & Yap, Inc.

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California Farm Bureau Federation

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California Wind Energy

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SPURR

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Southern California Edison Co.

K. Gansecki

TerraVerde Renewable Partners LLC

F. Lee

TURN

M. Hawiger

UCAN

D. Kelly

US Dept. of the Navy

K. Davoodi

US General Services Administration

D. Bogni

Valley Center Municipal Water Distr

G. Broomell

Western Manufactured Housing
Communities Association

S. Dey

Interested Parties

A.17-01-012, et. al.

R.13-09-011

Attachment A

SDG&E Advice Letter 3427-E, et. al.

Joint Investor Owned Utilities (IOU)
Auto Demand Response
Control Incentives Guidelines
and Adopted Policies
(Guidelines)

September 3, 2019



Prepared By



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Abstract

The Automated Demand Response (ADR) technology incentives offset ADR Control costs incurred by customers who wish to enroll in demand response (DR) programs utilizing software and systems to effectuate load drop with no manual intervention. The ADR Control automates participation in DR events to ensure customers provide reliable load shed during DR program events. Although non-residential customers have been the primary customer class to be eligible for these incentives, the three electric investor owned utilities (IOUs) have also provided ADR technology incentives to mass market customers, including residential and small-to-medium business (SMB) customers, to increase customer adoption of ADR Controls that can automate and provide reliable DR benefits.

The guidelines in this document provide the general program parameters for the IOUs automated demand response control incentive offerings as approved by California Public Utilities Commission (CPUC) Decision (D.) 17-12-003 and D.18-11-029. In addition, the resolutions of the 2019 ADR technical issues listed in Ordering Paragraph (OP) 9 of D.18-11-029 are included as well.

Abbreviations

AB 793	Assembly Bill 793
Auto-DR or ADR	Automated Demand Response Technology Incentive Program
BIP	Base Interruptible Program
BTM	Behind-the-Meter
CBP	Capacity Bidding Program
CCA	Community Choice Aggregation
CNCC	Competitive Neutrality Cost Causation
CPP	Critical Peak Pricing Program
CPUC	California Public Utilities Commission
DA	Direct Access
DR	Demand Response
DRAM	Demand Response Auction Mechanism Pilot
DRAS	Demand Response Automation Server
DRET	Demand Response Emerging Technology
DRP	Demand Response Provider
EMS	Energy Management System
EE	Energy Efficiency
ESA	Energy Savings Assistance
ESP	Electric Service Providers
EUL	Effective Useful Life (of measure)
HVAC	Heating, Ventilation, and Air Conditioning
IOU or IOUs	Investor Owned Utility or Investor Owned Utilities
kW	Kilowatt
M&V	Measurement & Valuation
MW	Megawatt
OpenADR	Open Automated Demand Response
PDP	Peak Day Pricing Program
PG&E	Pacific Gas and Electric Company
PTR-ET-DLC	SCE Peak Time Rebate Enabling Technology Direct Load Control Program
RTP	Real Time Pricing Program
SCE	Southern California Edison Company
SDG&E	San Diego Gas and Electric Company
SGIP	Self-Generation Incentive Program
SMB	Small and Medium Business
SSP	PG&E Supply Side DR Pilot
TA&TI	Technical Assistance and Technology Incentives Program
TD	Technology Deployment
XSP	PG&E Excess Supply DR Pilot

Definitions

ADR Control:

The ability to receive an automated demand response signal to enable the customer to participate in a demand response event without any manual customer intervention.*

**We note and recognize that many controls either allow or require the customer to acknowledge the signal before it begins equipment shutdown and that customers have override authority when a signal is received.*

Open ADR:

An open and standardized software protocol for electricity providers and system operators to communicate DR signals with each other and with their customers using a common language over any existing IP-based communications network, such as the Internet.

Dispatch or Dispatchable or DR Event:

The act of reducing existing load at the Customer's facility(ies), in response to a signal or dispatch instruction from an IOU's DRAS or DRP's automated dispatch system, for all or a portion of the Customer's electrical consumption during the demand response event.

Qualifying DR Program:

A DR program, approved by the CPUC, in which the program's participant(s) are eligible to receive ADR incentives which automate a customer's participation in program events.

Background on the ADR Program

In late 2006, the Commission modified the IOUs' 2006-2008 Demand Response portfolios by adopting programs for 2007 and 2008 that encourage automated demand response for commercial, industrial, and agricultural customers.¹ The three California IOUs have administered the statewide Automated Demand Response Technology Incentive Program (ADR Program) since that time.

The ADR Program primarily provides incentives to non-residential customers that purchase and install ADR Controls at the customers' facility or site to automate their participation and load curtailment in a Qualifying DR program. Non-residential customers are able to pre-program their DR participation levels, referred to as "shed strategies," through an ADR-enabled energy management system or technology, which allows the facility or building to automatically participate in a DR event. ADR Controls provide customers with increased flexibility (e.g., customizable load shed strategies) and ease-of-use without the need for manual response or intervention.

Reimbursement through the original ADR Program is available for the purchase and installation of ADR Controls to all non-residential customers. Non-residential customers must also have an interval meter, must enroll and participate in at least one Qualifying DR Program, must be able to demonstrate automated curtailment, and must demonstrate receipt of an ADR signal from the IOU's DRAS or a DRP, or a third-party's automated dispatch system.

In Decision (D.) [16-06-029](#), the Commission directed the Joint IOUs to adopt common program rules and incentives levels in an effort to achieve greater consistency between the IOUs' ADR Programs. In D.16-06-029, the Commission directed each IOU to modify its ADR Program for large non-residential customers and offer a 2-part (60/40) incentive, limited an incentive level up to \$200 per kW of verified Dispatchable load reduction, limited to 75 percent (75%) of the total project costs, whichever amount is lower. The first incentive payment is paid at 60 percent (60%) of the total eligible incentives and is paid after installation, M&V load shed test, and customer enrollment in a Qualifying DR Program. The customer is eligible for a portion or all of the remaining second incentive payment, up to 40 percent (40%), 12-months after the first incentive payment is issued. The second incentive is based upon the customer's average actual DR performance during the 12-month period or a full DR season, whichever is shorter.

PG&E and SCE also offer a deemed incentive to **some segments of** SMB customers of its ADR Program referred to as Auto-DR FastTrack and Auto-DR Express, respectively. These programs streamline the ADR application process and provide incentives for the

¹ Administrative Law Judge's Ruling Providing Guidance on Content and Format of the 2009-2011 Demand Response Activity Applications issued on February 27, 2008 in CPUC Rulemaking (R.) 07-01-041.

installation of ADR Controls specific to lighting and HVAC controls. By offering a pre-determined, validated estimate of peak demand savings for lighting and HVAC controls, **these** customers, may be ADR-enabled more efficiently and cost-effectively than through a site-specific calculated measurement and verification process.

Over the last few years², the IOUs have been providing incentives for residential technologies, such as ADR-enabled smart thermostats. SCE began offering incentives for residential thermostats in response to reliability issues, such as Aliso Canyon and in response to legislation, such as AB 793. **In D.17-12-003, SCE was authorized to continue offering the \$75 Smart Energy Program thermostat rebate in 2018 – 2022. SDG&E launched a residential thermostat program in 2014 which the CPUC classified as an ADR program beginning in 2018.**³ The IOUs continue to refine and expand residential ADR incentives to provide incentives to other residential ADR Controls.

Purpose

The purpose of these Guidelines is to document eligibility rules and requirements, and Commission policy, for the IOUs ADR Program (e.g. address program eligibility for ADR incentives offered to residential and non-residential customers), in compliance with Ordering Paragraph (OP) 29 of D.17-12-003.

The appendices contained in these Guidelines summarize the IOUs' ADR proposals program rules approved in previous CPUC decisions, and most recently, D.18-11-029.

- Appendix A – Program Rules and Eligibility Requirements for Residential ADR **Incentives**
- Appendix B – Program Rules and Eligibility Requirements for **Non-Residential ADR Calculated Incentives** Program
- Appendix C – Program Rules and Eligibility Requirements for **Non-Residential ADR Deemed Incentives** (*i.e.*, FastTrack or Express ADR Program)
- **Appendix D – Allocation of ADR Costs for Cost Effectiveness**
- **Appendix E – Determination of Whether the Incremental Load Reduction Covers the Incentive Costs**

Guidelines and Policies

Guidelines and policies affect the implementation and administration of the Statewide ADR Program. Guidelines and policies also serve as a foundation upon which the

² PG&E started to offer residential ADR incentive to Smart Thermostat in September 2017.

³ Changes in **red** reflect major modifications to the Guidelines when compared the Guidelines approved in the April 2019 joint IOU approve Advice Letter (AL) 5472-E-B et al (PG&E AL 5472-E-B, SCE AL 3939-E-B, and SDG&E AL 3336-E-B).

original components of the ADR Program were established and serve as basic criteria for other ADR incentive programs, such as a residential ADR incentive program.

Current Guidelines and Policies

ADR Guidelines and Policies Adopted in D.09-08-027

- Authorized the IOUs to require a Qualifying DR Program enrollment and participation requirement to receive incentives.
- Required reporting of incentive commitments into IOUs' DR CPUC Monthly Report.
- Established consistent incentive amounts for the IOUs TA&TI (Incentives for DR audits and non-ADR technologies)

ADR Guidelines and Policies Adopted in D.12-04-045

- Defined Auto Demand Response as automated technologies that allow a customer's equipment or facilities to reduce demand automatically in response to a demand response event or price signal, without the customer taking individual action.
- Directed IOUs to fund ADR technologies that interoperate using generally accepted industry open standards or protocols (i.e. OpenADR).
- Implemented the 60-40 split incentive for all non-residential customers to improve cost-effectiveness and motivate customers to demonstrate load shed performance at the level the equipment was incentivized and designed to achieve.
- Authorized AMP as a Qualifying DR Program for PG&E's ADR incentives.

ADR Guidelines and Policies Adopted in D.14-05-025

- Directed IOUs to create and implement a statewide ADR program.
- Streamlined the ADR application process.
- Provided technical coordinator assistance to ADR customers.

ADR Guidelines and Policies Adopted in D.16-06-029

- Modified eligible incentive amounts for IOUs Customized ADR Programs up to \$200 per kW or 75% of total project costs, whichever is less.
- Re-affirmed 60-40 split incentive for Customized ADR incentives.
- Clarified that all reliability programs, including BIP, are ineligible for the ADR control incentives.

ADR Guidelines and Policies Adopted in D.17-12-003

- Provided Auto Demand Response control incentives to participants of any supply side demand response programs/activities not required to be analyzed for cost-effectiveness. This includes pilots, but does not include non-event-based rates.
- Directed the IOUs to report their Auto Demand Response costs associated with all programs that qualify for Auto Demand Response incentives and their cost-effectiveness ratios with and without the Auto Demand Response incentives and shall clearly indicate the total Auto Demand Response incentives excluded from portfolio cost-effectiveness analysis and the costs associated with customers participating in each program qualifying for Auto Demand Response incentives.
- PG&E's Automatic Demand Response Program was approved as amended.
- SCE's Automated Demand Response Technology Incentive Program and Programmable Communicating Thermostat Incentive Program were approved as amended.
- SDG&E's Auto Demand Response Program was approved as amended.

ADR Guidelines and Policies Adopted in D.18-11-029

- Affirmed that the Commission did not establish a requirement that the IOUs must provide Auto Demand Response control incentives for supply side programs subject to cost-effectiveness analyses nor did the Commission prohibit the IOUs from providing these incentives for supply side programs subject to cost-effectiveness.
- Directed IOUs to report in their annual Load Impact Reports the incremental load reduction provided by Auto Demand Response controls and determine whether the load reduction fully covers additional cost of the control incentives allocated to the qualifying demand response programs.
- Prohibited participants of externally contracted demand response resources (e.g. external to the IOU portfolio and DRAM) from receiving Auto Demand Response control incentives.
- Determined that customers of the Demand Response Auction Mechanism Pilot (Auction Pilot), being a demand response pilot, are eligible to receive auto demand response control incentives unless those customers are registered as a Reliability Demand Response Resource (RDRR). RDRR bid into the California Independent System Operator (CAISO) wholesale energy market through the Auction Pilot are not eligible to receive Auto Demand Response control incentives.
- Auto Demand Response is not eligible for "similar" status under D.17-10-017, in regard to the cost causation competitive neutrality principle for unbundled customers. D.17-10-017 defines "similar" program as "a Community Choice

Aggregator or Direct Access Provider's (also referred to as a "Competing Provider") demand response program is considered similar to a demand response program provided by an investor-owned utility if the Competing Provider's program meets all specified requirements." The Auto Demand Response Program is neither a load modifying nor a supply resource, therefore, it cannot be subject to "similar" status under D.17-10-017.

- In regard to Behavioral Demand Response, receiving a text or email communication in addition to an automatic demand response signal does not disqualify a customer from receiving Auto Demand Response control incentives.
- For eligible automated controls, only the cost of the automated control qualifies for a control incentive, not the cost of the behavioral communication method.
- Devices unable to receive an Auto Demand Response signal are not eligible to receive Auto Demand Response control incentives. Overcoming barriers to adoption of devices such as low awareness, perceived lack of need, discomfort with using device, is not the purpose of the Auto Demand Response program.
- For residential, small and medium business customers, the control must be able to communicate and demonstrate operability using the current Open Auto Demand Response communication protocols and standards (currently OpenADR 2.0a or 2.0b). The control may be located either on site or as part of a control system, on site and at the manufacturer/demand response aggregator or provider cloud level. Only the customer is eligible for the Auto Demand Response control incentive, not the aggregator, demand response provider, or manufacturer cloud portion of the control.
- In the case of the small & medium business customer class and associated end uses, residential customers receiving incentives for thermostats, and customers enrolled in SDG&E's Technology Deployment Program: the criteria depend upon the type of Auto Demand Response in which the customer is enrolled, such as a deemed incentive based on the average kilowatt load drop for the control in that sector.
- For commercial and industrial customers applying for calculated incentives, the control must be onsite and able to communicate and demonstrate operability using the current Open Auto Demand Response communication protocols and standards (currently OpenADR 2.0a or 2.0b). The IOU must also be able to verify the anticipated kilowatts expected from the end uses equipped with the control as that is what determines the calculated incentive for that class of customers.
- Battery storage controls are not eligible for Auto Demand Response control incentives, unless their Auto-DR application was received before October 26, 2018.

ADR Guidelines and Policies Adopted in D.19-07-009

- Reaffirms the policy that battery storage controls are not eligible for auto demand response control incentives.
- Excludes Reliability Demand Response Resources in the Auction Mechanism.

Future Revisions to the Guidelines: Annual Process for “Complex and Technical” Refinements

The Commission determined that due to the evolving nature of demand response and associated technologies, it is appropriate to address complex and technical issues on an ongoing basis through an annual stakeholder process. Any proposed change must rely upon current budget authorizations for implementation, otherwise, the proposal is not appropriate for this process.

Per D.18-11-029, Ordering Paragraph (OP) 8, establishes an annual stakeholder process and authorizes Energy Division to work with the IOUs and other stakeholders to identify a set of ADR issues to be resolved for that year. The relevant text from OP 8 is below:

- For future years, the set of issues shall be identified no later than October 31 of the prior year.
- With Energy Division input, the IOUs shall develop proposals to address the issues and serve them on stakeholders no later than May 1 of each year, beginning in 2019.
- The IOUs shall hold workshops or webinars, noticed to the most recent and broadest demand response proceeding service list.
- Based upon the discussions at the workshops, the IOUs shall file, no later than August 15 of each year, draft updates to the Auto Demand Response Control Incentives Guidelines and Adopted Policies (Guidelines), incorporating the proposals to address the set of issues for that year.
- All stakeholders may provide informal comments to the service list on the draft updated Guidelines; the Director of the Energy Division is authorized to establish a deadline for submitting the informal comments.
- No later than September 1 of each year, the IOUs shall submit a Tier Two advice letter incorporating the proposals into the Guidelines and including all party comments in the advice letter.

D.18-11-029, OP 9, identified six Auto Demand Response issues to be resolved in 2019:

- a. Review of the approach to calculate control incentives;

- b. Implementation of the policy that Reliability Demand Response Resources are not eligible to receive auto demand response control incentives;
- c. Determination of the frequency of control incentives;
- d. Calculation of incentive cost-effectiveness;
- e. Development of a list of residential Auto Demand Response enabled end-use devices to be considered by Pacific Gas and Electric Company (PG&E) for eligibility for an Auto Demand Response incentive; and
- f. Development of criteria to determine the order for PG&E to evaluate load impacts attributable to the devices.

In addition, D.18-11-029 required that the IOUs track the incremental load reduction provided by ADR controls and determine whether the load reduction fully covers additional cost of the control incentives allocated to DR programs.⁴

Resolution of 2019 Complex and Technical Refinements

The IOUs provided a joint proposal as a follow up to the ADR workshop which took place in June 2019. OP 8 of D.18-11-029, directed the IOUs to develop proposals to address the ADR issues identified in D.18-11-029, OP 9, and to serve them to stakeholders on the service list no later than May 1, 2019. The IOUs complied by filing separate and different draft proposals. In June 2019, the IOUs and Energy Division (ED) hosted an in-person workshop with all stakeholders to discuss each IOU's proposal. At the workshop, the merits of each of the proposals were discussed and ED Staff recommended that the IOUs follow up the discussion at the workgroup by creating a joint IOU proposal. The following is the IOUs' proposed resolution to the technical issues included in D.18-11-029:

- a. No changes to the calculation of control incentives should be made until further research is completed.
- b. No proposal needed. On July 12, 2019, the Commission issued D.19-07-009, Decision Addressing Auction Mechanism, Baselines, and Auto Demand Response for Battery Storage. Ordering Paragraph 6 of the Decision excludes the procurement of RDRR in the DRAM. This policy alleviates the need for the IOUs to develop and implement a policy to verify that customers participating in DRAM, as an RDRR, from receiving ADR control incentives.

⁴ D.18-11-029, page 47.

- c. Current and legacy customers⁵ should be eligible for ADR Incentives once every 7.5 years for controls of the same end use. Consistent with the amortization period formula from the cost-effectiveness protocols, the 7.5-year period was derived by taking the average of the 10-year expected useful life of most ADR Control devices and the 5-year 2018-2022 funding cycle.
 - i) If a customer's incentivized ADR controls are no longer able to communicate with an IOU's system to receive demand response event signals due to change in the communication protocols or a change in the IOU's qualifying Enabling Technologies, the IOU may allow the customer to receive another incentive before the 7.5-year time period elapses. The IOUs also expect to be able to incentivize new ADR controls that provide new incremental demand response load at a site that has already received ADR control incentives, if the new ADR control will control a different end-use. For example, a residential customer previously received incentives for a qualifying thermostat and now seeks to receive incentives for a different type of qualifying device that controls a different end-use, such as a pool pump.
- d. Proposals regarding cost effectiveness:
 - i) Allocation of ADR costs:

Auto-DR incentives should be allocated in line with the forecasted load reduction from new Auto-DR participants in each program. Auto-DR administrative costs should also be allocated based on total load reduction by program. Details of the methodology can be found in Appendix D.
 - ii) Determination of whether the load reduction fully covers the additional cost of the control incentives:

Each IOU has provided an analysis on whether the load reduction from the ADR program fully covers the additional cost of the ADR control incentives. Details of the methodology used for this analysis can be found in Appendix E. The IOUs will provide an annual report on this analysis each year in their May 1st proposals ordered by D.18-11-029.
- e. PG&E proposes to resume the stakeholder process as outlined in the settlement agreement to develop a list of residential end uses devices to be considered for eligibility for an ADR incentive.

⁵ Current customers are defined as customers participating in ADR incentive programs in 2018 and beyond. Legacy customers are defined as customers who previously participated in ADR incentive programs prior to 2018.

- f. PG&E proposes to postpone this second part of the residential project until additional research has been completed.

APPENDIX A - Program Rules and Eligibility Requirements for Residential ADR Incentives

IOU Program Name	SCE PCT Incentive Program		PG&E AutoDR Residential Program	SDG&E Technology Deployment (TD) Program
Customer Segment	Residential (<i>Bundled Only</i>)	Residential & SMB (<200kW)	Residential	Residential
Qualifying DR Programs ⁶	Smart Energy Program - SEP (formerly PTR-ET-DLC)	CPP, CBP Res Pilot, PDR DRAM	Res CBP, Res PDR DRAM, Smart Rate, Res SSP and XSP	AC Saver, rate with events, PDR DRAM
Minimum DR Program Enrollment Requirement	No minimum DR program requirement at this time. Will evaluate the effectiveness and determine if changes need to be made in the mid-cycle review.	Will be made in the mid-cycle review.	1 year or 1 DR season, depending on the DR program requirement.	No minimum DR program enrollment requirement.
Incentive/Rebate Amount	\$75		\$50 for Smart Thermostat. Incentive and eligibility for other technologies (TBD)	\$50
Incentive/Rebate Cap	One incentive per service account ⁷		One rebate per household for Smart Thermostat. Rebate cap for other incentivized technologies (TBD)	Two rebates/incentives per household
Incentive/Rebate Recipient	Bill credit issued to customer	Bill credit issued to customer <i>(eventually same process and payment structure as EE incentives; TBD in mid-cycle)</i>	Rebate check to customer	Gift card issued to customer
Frequency of Incentives				7.5 years 5-years <i>(depreciation period used in DR-C/E calculations)</i>
Evidence of Purchase	Device registration and verification w/ authorized 3rd party	Evidence of device registration and verification w/ an authorized 3rd party <i>(currently 11 years per the approved EE worksheet)</i>	Customer required to upload copy of receipt for Smart Thermostat. Evidence of Purchase for other technologies TBD	Device verification w/ authorized 3rd party
Controllability/Technology Registration Requirement	The control must be able to communicate and demonstrate operability using the current Open Auto Demand Response communication protocols and standards (currently OpenADR 2.0a or 2.0b). The control may be located either on site or as part of a control system, on site and at the manufacturer/demand response aggregator or provider cloud level. Only the customer is eligible for the Auto Demand Response control incentive, not the aggregator, demand response provider, or manufacturer cloud portion of the control.			
Eligible Measures ⁸	PTR-ET-DLC-SEP Qualifying Thermostats	Qualifying Thermostats that meet the above requirement.	Smart Thermostat. Other technologies in the future based on the Annual ADR process	Controllable Thermostat. Other technologies in the future based on the stakeholder collaborative process
Application Process	SEP, PTR-ET-DLC Landing Page https://pages.email.sce.com/scesmartbonus/	SCE Marketplace https://marketplace.sce.com/thermostats/	PG&E eRebate and hardcopy application process (www.pge.com/rebates)	Online
Double Dipping Validation (<i>cannot receive multiple Incentives</i>)	During eligibility verification process, Customer's Service Account (SA) will be validated that only one incentive was issued to the SA based upon the EUL identified above.	During eligibility verification process, Customer's Service Account (SA) will be validated that only one incentive was issued to the SA based upon the EUL identified above.		During eligibility verification process the customer service account will be validated.

⁶ Externally contracted demand response resources (e.g. external to the IOU portfolio and DRAM) are not eligible to receive ADR control incentives. For example, externally contracted demand response resources are demand response resources procured through an IOU Request For Offer (RFO), such as SCE's Local Capacity Resource (LCR) RFO or Preferred Resources Pilot (PRP) RFO.

⁷ Customers that receive a free smart thermostat through an existing ratepayer-funded incentive program or pilot are not eligible for an additional PCT incentive.

⁸ ADR incentives for battery storage controls is prohibited except in the case of incentive applications received before October 26, 2018. For eligible automated controls, only the cost of the automated control qualifies for a control incentive.

APPENDIX B – Program Rules and Eligibility Requirements for Non-Residential ADR Calculated Incentives

IOU Program Name	SCE ADR Customized ⁹	PG&E ADR Program	Technology Incentive (TI) Program
Customer Segment	Large Commercial, Industrial, & Agricultural (must provide at least 30kW of automated load reduction)	Non-qualifying FastTrack Commercial, Industrial, & Agricultural	Commercial, Industrial, & Agricultural
Qualifying DR Programs ¹⁰	CBP, CPP, RTP, PDR DRAM, or Other Qualifying Pilots	PDP, CBP, PDR DRAM, SSP and XSP	CBP, CPP, PDR DRAM or Other Qualifying Pilots
Minimum DR Program Enrollment Requirement	Must be enrolled in a Qualifying DR Program for at least 36 consecutive months		
Incentive Type	Calculated		
Incentive Structure	60% / 40% Split Incentive Payment		
Incentive Level	Up to \$200 per kW		
Incentive Calculation Methodology	Incentive calculated based upon verified load shed test (e.g. subject to 2-hour M&V test)	Incentive based upon engineering calculations and/or verified load shed test, whichever is lower	Incentive based upon engineering calculations and/or verified load shed test
Incentive Project Cap of Eligible Costs	75% of total actual eligible control costs.		
Incentive/Rebate Cap	\$5 million per customer per funding cycle; Individual SAs requesting incentives >\$200k must sign a Letter of Agreement (LOA)	Not Applicable	
Incentive/Rebate Recipient	Rebate check issued to customer		
Frequency of Incentives	7.5 years One-time. Customer can re-apply for incentives if they can demonstrate incremental kW.	7.5 years Technology Useful Life	7.5 years twice (based upon the 60/40 split payment methodology)
Evidence of Purchase	Customers must provide receipts for actual costs incurred	Customers must provide receipts for actual costs incurred	Customer required to provide invoices and/or documentation to support measure costs. Such documents must comply with SDG&E's Invoicing Guidelines and any other documents related to the Project, Project Site, measures, load reduction (kW) or otherwise requested by SDG&E.
Controllability/Technology Registration Requirement	The control must be onsite and able to communicate and demonstrate operability using the current Open Auto Demand Response communication protocols and standards (currently OpenADR 2.0a or 2.0b). The IOU must also be able to verify the anticipated kilowatts expected from the end uses equipped with the control as that is what determines the calculated incentive for that class of customers.		
Eligible Measures ¹¹	ADR enabled equipment that facilitates site-wide automatic load reduction such as controls for lighting, motors, pumps, fans, air compressors, process equipment, HVAC load control devices, etc.		
Application Process	Submission of hard copy ADR application and customer agreement		

⁹ ADR Program incentives cannot be provided to customers that have received rebates, incentives, funding, or services for measures and/or costs from other utility, third party, or government (federal, state, or local) program funded by public purpose funds, taxpayers, or IOU Request For Offer (RFO) solicitations, unless explicitly exempted.

¹⁰ Externally contracted demand response resources (e.g., external to the IOU portfolio and DRAM) are not eligible to receive ADR control incentives. For example, externally contracted demand response resources are demand response resources procured through an IOU Request For Offer (RFO), such as SCE's Local Capacity Resource (LCR) RFO or Preferred Resources Pilot (PRP) RFO.

¹¹ ADR incentives for battery storage controls is prohibited except in the case of incentive applications received before October 26, 2018. For eligible automated controls, only the cost of the automated control qualifies for a control incentive.

APPENDIX C – Program Rules and Eligibility Requirements for Non-Residential ADR Deemed Incentives

IOU Program Name	SCE PCT Incentive	SCE ADR Express ¹²	PG&E FastTrack	SDG&E TD Program
Customer Segment		Small Retail Stores, Small Office (<100,000 sq ft), and Food Stores (including liquor stores)	Office, Retail, Quick-serve Restaurant, Conditioned Warehouse, Hotel, Grocery <499kW	Commercial
Qualifying DR Programs ¹³		CBP, CPP, RTP, PDR DRAM, or Other Qualifying Pilots	PDP, CBP, PDR DRAM, SSP and XSP	AC Saver, rate with events, CBP, PDR DRAM, or other qualifying pilots
Minimum DR Program Enrollment Requirement		Must be enrolled in a Qualifying DR Program for at least 36 consecutive months		One-Year
Incentive Type		Deemed		
Incentive Structure		100% Up-Front		
Incentive Level		Up to \$300/kW	Up to \$200/kW	\$50 per Smart Thermostat
Incentive Calculation Methodology		Incentive based upon pre-determined kW reduction potential of the specific measure		
Incentive Project Cap of Eligible Costs		100% of project cost		
Incentive/Rebate Cap	See details in Appendix A	\$1 million per customer per funding cycle (Incentive requests >\$200k are subject to additional performance requirements)	Not Applicable	Four incentives per service account (larger customers may qualify for more)
Incentive/Rebate Recipient		Rebate check issued directly to customer		
Frequency of Incentives		7.5 years One-time. Customer can re-apply for incentives if they can demonstrate incremental kW.	7.5 years Technology Useful Life	7.5 years 5-years, used in DR-C/E calculations
Evidence of Purchase		Customers must provide receipts for actual costs incurred	Customers must provide receipts for actual costs incurred	Device verification w/ authorized 3rd party
Controllability/Technology Registration Requirement		The control must be able to communicate and demonstrate operability using the current Open Auto Demand Response communication protocols and standards (currently OpenADR 2.0a or 2.0b). The control may be located either on site or as part of a control system, on site and at the manufacturer/demand response aggregator or provider cloud level. Only the customer is eligible for the Auto Demand Response control incentive, not the aggregator, demand response provider, or manufacturer cloud portion of the control.		
Eligible Measures ¹⁴		Systems that control standard lighting and HVAC technologies, IOUs may add controls for different end use technologies as appropriate		
Application Process		Submission of hard copy or online application and customer agreement		
		Submission of online application through authorized 3 rd party		

¹² ADR Program incentives cannot be provided to customers that have received rebates, incentives, funding, or services for measures and/or costs from other utility, third party, or government (federal, state, or local) program funded by public purpose funds, taxpayers, or IOU Request For Offer (RFO) solicitations, unless explicitly exempted.

¹³ Externally contracted demand response resources (e.g., external to the IOU portfolio and DRAM) are not eligible to receive ADR control incentives. For example, externally contracted demand response resources are demand response resources procured through an IOU Request For Offer (RFO), such as SCE's Local Capacity Resource (LCR) RFO or Preferred Resources Pilot (PRP) RFO.

¹⁴ ADR incentives for battery storage controls is prohibited except in the case of incentive applications received before October 26, 2018. For eligible automated controls, only the cost of the automated control qualifies for a control incentive.

APPENDIX D – Allocation of Auto-DR Costs for Cost Effectiveness

For the post-2022 DR Program Application, the Joint IOUs (PG&E, SCE and SDG&E) propose the following methodology to allocate ADR incentive costs and ADR administrative costs across ADR eligible DR programs (including Supply side DR Programs, Load Modifying DR Programs and DRAM).

Allocation of ADR Incentive Costs: Each IOU will allocate ADR incentive costs to ADR eligible programs based on a forecast of the cumulative incremental ADR enabled KW in each ADR eligible program over the program cycle, multiplied by the estimated \$ per KW ADR incentive applicable for that program. This will involve the following steps:

Step A	Multiplied by Step B	Equals Step C
Estimate the cumulative incremental ADR KW for ADR eligible program each year over the program cycle	Calculate the ADR incentive for each eligible program tested by multiplying the forecasted kW by the ADR \$ per kW incentive.	Include the incentive from Step B in the CE tests as capital costs amortized over time.

Allocation of ADR Program Administrative Costs: The joint IOUs propose to allocate the ADR program administrative costs based on the estimated KW load reductions for each ADR eligible program. This will involve the following steps.

Step A	Step B	Step C
Estimate the KW load impacts for each ADR eligible program over the program cycle ¹⁵	Calculate the pro-rata share of load impacts for each ADR eligible program over the program cycle	Multiply the pro-rata share for each ADR eligible program by the total ADR program administrative budget

¹⁵ DRAM currently is not subject to load impact evaluations; therefore, the IOUs cannot assign administrative costs to DRAM based on load impacts. The IOUs will have to use the best available information at the time.

APPENDIX E – Determination of Whether the Incremental Load Reduction Covers the Incentive Costs

ADR incremental load reduction compare to ADR incentive - On page 47 of D.18-11-029, the Commission stated that the IOUs should track the incremental load reduction provided by ADR controls, determine whether the load reduction fully covers additional cost of the control incentives allocated to DR programs, and report the incremental load reduction in the annual load impact studies and reports.

Pursuant to the DR cost-effectiveness protocols, the IOUs do not perform a direct cost-effectiveness evaluation of non-resource programs, such as the ADR program, rather costs of non-resource programs are included in the cost-effectiveness evaluations of the associated DR resource programs. The IOUs applied the methodology described below for determining whether the load reduction covers the cost of the control incentives.

It should be noted that this methodology is not adopted in any Commission proceeding but is the IOU's attempt to address the Commission's directive on page 47 of D.18-11-029.

The IOUs reviewed and analyzed its ADR projects that were active during the 2018 Program Year (PY) Load Impact Study period using the following methodology:

1. Obtain the total MW load impact for the ADR customers included in the 2018 PY DR Load Impact studies¹⁶ for accounts who were paid incentives after the changes to the ADR incentive structures in 2013.¹⁷
2. Calculate the 2018 adjusted capacity value or benefit per kW using the approved avoided cost values and methodology in the DR cost effectiveness workbook.¹⁸
3. Determine the sum of the ADR incentives paid to each participating service account from Step 1.
4. Annualized the incentives by dividing total incentives paid (determined in Step 3) by the amortization period used when including these costs in the cost effectiveness test, which is 7.5 years.¹⁹
5. Divide the annualized total incentives paid (Step 4) by the total 2018 ADR load impacts to obtain an annual dollar per kW paid (Step 4 divided by Step 1).

¹⁶ DRAM currently is not subject to load impact evaluations and cost effectiveness analysis; therefore, the IOUs cannot evaluate whether the load reduction covers the incentives paid to DRAM participants.

¹⁷ The IOUs used two scenarios. One scenario assumed that ADR customers would not join the DR program absent the ADR incentive, therefore, these amounts are considered "incremental." The other assumed that 50% of the ADR load reduction was incremental.

¹⁸ The DR cost effectiveness framework includes other minor benefits (e.g. energy, T&D, GHG) that may or may not be included since the amounts are small relative to the capacity value.

¹⁹ Tracking the load impacts over the length of time customer remains in program would be a better alternative but more difficult.

APPENDIX E – Determination of Whether the Incremental Load Reduction Covers the Incentive Costs

6. Compare the 2018 adjusted capacity value (Adjusted \$/kW) to the 2018 ADR annualized incentive paid per kW (Step 5 compared to Step 2)

If the variance between the two \$/kW figures (Step 5 and Step 2) is positive, then the load reduction is assumed to cover the cost of the control incentive. If the variance is negative, then the load reduction does not cover the cost of the incentive.

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

AT&T	Downey & Brand	Pioneer Community Energy
Albion Power Company	East Bay Community Energy	Praxair
Alcantar & Kahl LLP	Ellison Schneider & Harris LLP	
	Energy Management Service	
Alta Power Group, LLC	Engineers and Scientists of California	Redwood Coast Energy Authority
Anderson & Poole	Evaluation + Strategy for Social Innovation	Regulatory & Cogeneration Service, Inc.
	GenOn Energy, Inc.	SCD Energy Solutions
Atlas ReFuel	Goodin, MacBride, Squeri, Schlotz & Ritchie	
BART	Green Charge Networks	SCE
	Green Power Institute	SDG&E and SoCalGas
Barkovich & Yap, Inc.	Hanna & Morton	
P.C. CalCom Solar	ICF	SPURR
California Cotton Ginners & Growers Assn	International Power Technology	San Francisco Water Power and Sewer
California Energy Commission	Intestate Gas Services, Inc.	Seattle City Light
California Public Utilities Commission	Kelly Group	Sempra Utilities
California State Association of Counties	Ken Bohn Consulting	Southern California Edison Company
Calpine	Keyes & Fox LLP	Southern California Gas Company
	Leviton Manufacturing Co., Inc. Linde	Spark Energy
Cameron-Daniel, P.C.	Los Angeles County Integrated Waste Management Task Force	Sun Light & Power
Casner, Steve	Los Angeles Dept of Water & Power	Sunshine Design
Cenergy Power	MRW & Associates	Tecogen, Inc.
Center for Biological Diversity	Manatt Phelps Phillips	TerraVerde Renewable Partners
City of Palo Alto	Marin Energy Authority	Tiger Natural Gas, Inc.
	McKenzie & Associates	
City of San Jose	Modesto Irrigation District	TransCanada
Clean Power Research	Morgan Stanley	Troutman Sanders LLP
Coast Economic Consulting	NLine Energy, Inc.	Utility Cost Management
Commercial Energy	NRG Solar	Utility Power Solutions
County of Tehama - Department of Public Works		Utility Specialists
Crossborder Energy	Office of Ratepayer Advocates	
Crown Road Energy, LLC	OnGrid Solar	Verizon
Davis Wright Tremaine LLP	Pacific Gas and Electric Company	Water and Energy Consulting Wellhead Electric Company
Day Carter Murphy	Peninsula Clean Energy	Western Manufactured Housing Communities Association (WMA)
		Yep Energy
Dept of General Services		
Don Pickett & Associates, Inc.		
Douglass & Liddell		