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March 4, 2019

**Advice 5472-E-A**

(Pacific Gas and Electric Company ID U 39 E)

**Advice 3939-E-A**

(Southern California Edison Company ID U 338 E)

**Advice 3336-E-A**

(San Diego Gas and Electric Company ID U 902 E)

Public Utilities Commission of the State of California

**Subject: Supplemental: Update to Auto Demand Response Guidelines  
Per D. 18-11-029**

**Purpose**

Pacific Gas and Electric Company (PG&E) hereby submits this supplemental advice letter on behalf of Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), and itself, jointly the Investor Owned Utilities (IOUs). This second update reflects input provided by Energy Division staff after the original joint AL 5472-E et al. was filed on January 24, 2019<sup>1</sup> along with clarifying edits proposed by the IOUs. AL 5472-E et al made modification to the existing Auto Demand Response (ADR) Guidelines<sup>2</sup> pursuant to the California Public Utilities Commission (Commission or CPUC), Decision (D.) 18-11-029, Ordering Paragraph (OP) 7.

**Background**

OP 7 of D. 18-11-029 ordered the IOUs to file a Tier 1 Advice Letter updating the ADR Guidelines no later than 45 days from the issuance of D.18-11-029.<sup>3</sup> These updates

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<sup>1</sup> Energy Division staff emailed the IOUs a marked-up ADR Guideline for consideration on February 11, 2019. Subsequently, on February 15, 2019, Energy Division staff and the IOUs held a conference call to discuss the proposed edits. The original Advice Letter was suspended on February 22, 2019 to allow for the submission of this Supplemental filing.

<sup>2</sup> The ADR Guidelines is short-hand for the full document titled "The Auto Demand Response Guidelines and Adopted Policies (Guidelines)" as renamed per OP 7 of D. 18-11-029.

<sup>3</sup> D.18-11-029 was issued on December 10, 2018.

are being made to the existing ADR guidelines<sup>4</sup> based on changes set forth in OP 6 and OP 7, the processes established in OP 8, the 2019 topics identified in OP 9 along with the limitation placed on ADR incentives for battery storage controls in OP 10.

## **Overview of Updates**

### **Overview of Supplemental Filing**

After the original filing of advice letter 5472-E et al. on January 24, 2019, Energy Division staff proposed a number of edits that were generally focused on syntax, clarifications and corrections. These modifications were made to both the body of the Guidelines along with the supporting Appendices A through C covering rules and eligibility requirements. In support of the proposed edits, this supplemental submittal includes a clean version dated March 4, 2019 and a redline version comparing it to the original filing on January 24, 2019.

### **OP 6 Updates**

OP 6 calls for the following specific modifications to the control incentive policies, which are reflected on pages 9-10 of the updated ADR Guidelines.

- a) Externally contracted demand response resources are not eligible to receive auto demand response control incentives.
- b) 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 customers are registered in Reliability Demand Response Resources (RDRR). RDRR bid in the California Independent System Operator market through the Auction Pilot are not eligible to receive Auto Demand Response control incentives.
- c) Auto Demand Response is not eligible for “similar” status.
- d) 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.
- e) For eligible automated controls, only the cost of the automated control qualifies for a control incentive.
- f) Devices unable to receive an auto demand response signal are not eligible to receive auto demand response control incentives.
- g) For residential, small and medium business customers, the control must be able to communicate and demonstrate operability using the current Open Auto

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<sup>4</sup> These updates are being made to the current ADR Guidelines dated February 20, 2018, as included in Attachment 1 of the Decision.

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.

h) 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.

i) 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 Utility 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.

### OP 8 Updates

OP 8 calls for the establishment of an annual stakeholder process starting in 2019 to address ongoing ADR issues. This stakeholder process relies on “workshops and webinars” with clearly established milestones as found on page 11 of the updated ADR Guidelines and summarized in the following table.

<b>Activity</b>	<b>Date</b>
IOUs and other stakeholders to identify issues for upcoming year (except for 2019 which were identified in OP 9)	<u>October 31</u> of the prior year
IOUs with Energy Division input shall develop proposals and “ <u>serve</u> ” them on stakeholders	May 1 of the current year
IOUs to hold workshops or webinars	Date is to be determined by the IOUs
IOUs to “ <u>file</u> ” DRAFT updates to the ADR Guidelines	<u>August 15</u> of the current year
Informal comments can be provided to the service list by stakeholders	Date is to be determined (ED is authorized to establish the deadline).
IOUs to “ <u>submit</u> ” a Tier 2 advice letter for the ADR updates, including party comments	No later than <u>September 1</u> of the current year.

### OP 9 Updates

OP 9 addresses ADR issues to be resolved in 2019 and includes the following elements found on page 11 of the updated ADR Guidelines.

- 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; and
- 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.

### OP 10 Updates

OP 10 places a limitation on battery storage controls to receive Auto Demand Response control incentives, unless their application was received before October 26, 2018. This provision related to battery storage was incorporated into the updated ADR Guidelines on the bottom of page 10.

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

### Protests

Pursuant to CPUC General Order 96-B, Section 7.5.1, PG&E hereby requests the protest period be waived based on guidance provided by the Energy Division. The original advice letter was not protested.

### Effective Date

PG&E requests that this Tier 1 advice letter become effective upon date of submittal, which is March 4, 2019.

**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. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. 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/>.

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/S/

Erik Jacobson  
Director, Regulatory Relations

Attachments

cc: Service List A.17-01-012 et al.



# ADVICE LETTER SUMMARY

## ENERGY UTILITY



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

Company name/CPUC Utility No.: Pacific Gas and Electric Company (ID U39E)

Utility type:

- ELC       GAS       WATER  
 PLC       HEAT

Contact Person: Yvonne Yang

Phone #: (415)973-2094

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: Yvonne.Yang@pge.com

EXPLANATION OF UTILITY TYPE

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

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 5472-E-A et al.

Tier Designation: 1

Subject of AL: Supplemental: Update to Auto Demand Response Guidelines per D. 18-11-029

Keywords (choose from CPUC listing): Compliance

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: No

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

Confidential treatment requested?  Yes  No

If yes, specification of confidential information:

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:

Resolution required?  Yes  No

Requested effective date: 3/4/19

No. of tariff sheets: N/A

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 proposed<sup>1</sup>: N/A

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

<sup>1</sup>Discuss 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](mailto:EDTariffUnit@cpuc.ca.gov)

Name: Erik Jacobson, c/o Megan Lawson  
Title: Director, Regulatory Relations  
Utility Name: Pacific Gas and Electric Company  
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Name:  
Title:  
Utility Name:  
Address:  
City:  
State: District of Columbia Zip:  
Telephone (xxx) xxx-xxxx:  
Facsimile (xxx) xxx-xxxx:  
Email:

Clear Form

**Attachment 1**

**Joint Investor Owned Utilities (IOU)  
The Auto Demand Response  
Guidelines and Adopted Policies  
(Guidelines)**

**Clean Version**

# The Auto Demand Response Control Incentives Guidelines and Adopted Policies (Guidelines)

March 4, 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.

## 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
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.*

**OpenADR** – 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 a Utilities' DRAS or automated dispatch system, for all or a portion of the Customer's electrical consumption during the demand response event duration.

**Eligible Measures** – A measure that is eligible for ADR incentives must meet all of the following criteria:

- (i) Must be operating or online at the Customer facility or premise;
- (ii) Must be incremental or has not previously received ADR Program incentives for the specified measure; and
- (iii) Must be Dispatchable under the requirements identified in Appendix A, Appendix B, and Appendix C.

**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.<sup>1</sup> 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 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 utility's DRAS or utility's automated dispatch system.

In CPUC 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 utility 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 SMB customers of its ADR Program referred to as Auto-DR Fast Track and Auto-DR Express, respectively. These programs streamline the ADR application process and provide incentives for the installation of ADR Controls specific to lighting and HVAC controls. By offering a pre-determined,

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<sup>1</sup> 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.

validated estimate of peak demand savings for lighting and HVAC controls, SMB customers, may be ADR-enabled more efficiently and cost-effectively than through a site-specific calculated measurement and verification process.

Over the last few years<sup>2</sup>, the IOUs have been providing incentives for residential technologies, such as ADR-enabled smart thermostats, in response to reliability issues, such as Aliso Canyon and in response to legislation, such as AB 793. 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 SMB customers), in compliance with Ordering Paragraph (OP) 29 of D.17-12-003.

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

- Appendix A –Program Rules and Eligibility Requirements for Utilities' Residential ADR Program
- Appendix B – Program Rules and Eligibility Requirements for Utilities' Established Large Non-Residential ADR Program (i.e. Customized ADR Program)
- Appendix C – Program Rules and Eligibility Requirements for Utilities' Established SMB ADR Program (i.e. Fast Track or Express ADR Program)

## 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 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*

#### *Auto-DR Guidelines and Policies Adopted in D.09-08-027*

- Authorized Utilities to require a Qualifying DR Program enrollment and participation requirement to receive incentives.

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

- Required reporting of incentive commitments into Utilities' DR CPUC Monthly Report.
- Established consistent incentive amounts for the IOUs TA&TI

*Auto-DR 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 Utilities 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.

*Auto-DR Guidelines and Policies Adopted in D.14-05-025*

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

*Auto-DR 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.

*Auto-DR 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.

*Auto-DR Guidelines and Policies Adopted in D.18-11-029*

- Affirmed that the Commission did not establish a requirement that the Utilities must provide Auto Demand Response control incentives for supply side programs subject to cost-effectiveness analyses nor did the Commission prohibit the Utilities 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 Utility 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.

## 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 Auto DR 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 Utilities shall develop proposals to address the issues and serve them on stakeholders no later than May 1 of each year, beginning in 2019.
- The Utilities 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 Utilities 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 Utilities 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:

- Review of the approach to calculate control incentives;
- Implementation of the policy that Reliability Demand Response Resources are not eligible to receive auto demand response control incentives;
- Determination of the frequency of control incentives;
- Calculation of incentive cost-effectiveness;

- 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
- Development of criteria to determine the order for PG&E to evaluate load impacts attributable to the devices.

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

IOU Program Name	SCE PCT Incentive Program		PG&E AutoDR Incentive Program	SDG&E Technology Deployment (TD) Program
Customer Segment	Residential ( <i>Bundled Only</i> )	Residential & SMB (<200kW)	Residential	Residential
Qualifying DR Programs <sup>3</sup>	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.		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 <sup>4</sup>		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 (eventually same process and payment structure as EE incentives; TBD in mid-cycle)	Rebate check to customer	Gift card issued to customer
Frequency of Incentives	Technology Useful Life (currently 11 years per the approved EE workpaper)			5 years (depreciation period used in DR C/E calculations)
Evidence of Purchase	Device registration and verification w/ authorized 3rd party	Evidence of device registration and verification w/ an authorized 3rd party	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 <sup>5</sup>	PTR-ET-DLC 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	<a href="https://pages.email.sce.com/scesmartbonus/">PTR-ET-DLC Landing Page</a> <a href="https://pages.email.sce.com/scesmartbonus/">https://pages.email.sce.com/scesmartbonus/</a>	SCE Marketplace <a href="https://images.enverve.com/image/upload/q_auto:eco/v1547275948/email/SCE/smart-thermostat-incentive-form_v3_wcaq_linked.pdf">https://images.enverve.com/image/upload/q_auto:eco/v1547275948/email/SCE/smart-thermostat-incentive-form_v3_wcaq_linked.pdf</a>	PG&E eRebate and hardcopy application process (www.pge.com/rebates)	Online
Double Dipping Validation (cannot receive multiple incentives)	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.

<sup>3</sup> Externally contracted demand response resources (e.g. external to the IOU portfolio and DRAM) are not eligible to receive auto demand response control incentives. For example, externally contracted demand response resources are demand response resources procured through a utility Request For Offer (RFO), such as SCE's Local Capacity Resource (LCR) RFO or Preferred Resources Pilot (PRP) RFO.

<sup>4</sup> Customers that receive a free smart thermostat through an existing ratepayer-funded incentive program or pilot are not eligible for an additional PCT incentive.

<sup>5</sup> Auto Demand Response 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 Large C&I ADR Incentives

IOU Program Name	SCE ADR Customized	PG&E ADR Program	SDG&E ADR Program
Customer Segment	Large Commercial, Industrial, & Agricultural (must provide at least 30kW of automated load reduction)	Large Commercial, Industrial, & Agricultural	Commercial, Industrial, & Agricultural
Qualifying DR Programs <sup>6</sup>	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	One time. Customer can re-apply for incentives if they can demonstrate incremental kW.	Technology Useful Life	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 Utility 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 <sup>7</sup>	ADR enabled equipment that facilitates sitewide 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		

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

<sup>7</sup> Auto Demand Response 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 SMB ADR Incentives

IOU Program Name	SCE PCT Incentive	SCE ADR Express	PG&E Fast Track	SDG&E Small Commercial Energy Management Pilot <sup>8</sup>	SDG&E TD Program
Customer Segment	See details in Appendix A	Small Retail Stores, Small Office (<100,000 sq ft), and Food Stores (including liquor stores)	SMB	SMB (with no less than 3 locations: =<20kW peak demand per site)	Commercial
Qualifying DR Programs <sup>9</sup>		CBP, CPP, RTP, PDR DRAM, or Other Qualifying Pilots	PDP, CBP, PDR DRAM, SSP and XSP	CBP, CPP, PDR DRAM or Other Qualifying Pilots	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		Must be enrolled in a Qualifying DR Program for at least 24 consecutive months	
Incentive Type		Deemed		Calculated	Deemed
Incentive Structure		100% Up-Front			
Incentive Level		Up to \$300/kW	Up to \$200/kW		TBD (based upon \$100/kW)
Incentive Calculation Methodology		Incentive based upon pre-determined kW reduction potential of the specific measure		Incentive based upon verified dispatchable load reduction	
Incentive Project Cap of Eligible Costs		100% of project cost		Capped at 50% of the actual project cost (including the purchase price & costs for installation by a third-party)	
Incentive/Rebate Cap		\$1 million per customer per funding cycle (Incentive requests >\$200k require a Letter of Agreement)	Not Applicable	\$10,000 or cost cap, whichever is lower	
Incentive/Rebate Recipient		Rebate check issued directly to customer			Customer or Vendor/Installer
Frequency of Incentives		One time. Customer can re-apply for incentives if they can demonstrate incremental kW.	Technology Useful Life	One time	
Evidence of Purchase		Customers must provide receipts for actual costs incurred	Customers must provide receipts for actual costs incurred	Customers require to invoices and/or documentation to support measure costs. Such documents must comply with SDG&E's SBCP Invoicing Guidelines.	
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 <sup>10</sup>	Systems that control standard lighting and HVAC technologies, IOUs may add controls for different end use technologies as appropriate		All controllable devices that meet communication protocol requirement are commercially available and are cloud based.		
Controllable Thermostat. Other technologies in the future based on the stakeholder process					
Application Process	Submission of hard copy or online application and customer agreement			TBD	

<sup>8</sup> Part of AB793. Marketed as the Small Business Real Time Energy Manager (SBREM).

<sup>9</sup> Externally contracted demand response resources (e.g. external to the IOU portfolio and DRAM) are not eligible to receive auto demand response control incentives. For example, externally contracted demand response resources are demand response resources procured through a utility Request For Offer (RFO), such as SCE's Local Capacity Resource (LCR) RFO or Preferred Resources Pilot (PRP) RFO.

<sup>10</sup> Auto Demand Response 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.

**Attachment 2**

**Joint Investor Owned Utilities (IOU)  
The Auto Demand Response  
Guidelines and Adopted Policies  
(Guidelines)**

**Redlined Version**

~~Joint Investor Owned Utilities (IOU)~~

The Auto Demand Response

Control Incentives Guidelines

and Adopted Policies

(Guidelines)

**Redlined Version**

~~January 24, 2019~~ March 4, 2019



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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.

## 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
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.*

**OpenADR** – 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 a Utilities' DRAS or automated dispatch system, for all or a portion of the Customer's electrical consumption during the demand response event duration.

**Eligible Measures** – A measure that is eligible for ADR incentives must meet all of the following criteria:

- (i) Must be operating or online at the Customer facility or premise;
- (ii) Must be incremental or has not previously received ADR Program incentives for the specified measure; and
- (iii) Must be Dispatchable under the requirements identified in Appendix A, Appendix B, and Appendix C.

**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.<sup>1</sup> 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 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 utility's DRAS or utility's automated dispatch system.

In CPUC 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 utility 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 SMB customers of its ADR Program referred to as Auto-DR Fast Track and Auto-DR Express, respectively. These programs streamline the ADR application process and provide incentives for the installation of ADR Controls specific to lighting and HVAC controls. By offering a pre-determined,

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<sup>1</sup> 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.

validated estimate of peak demand savings for lighting and HVAC controls, SMB customers, may be ADR-enabled more efficiently and cost-effectively than through a site-specific calculated measurement and verification process.

Over the last few years<sup>2</sup>, the IOUs have been providing incentives for residential technologies, such as ADR-enabled smart thermostats, in response to reliability issues, such as Aliso Canyon and in response to legislation, such as AB 793. The IOUs continue to refine and expand residential ADR incentives to provide incentives to other residential ADR Controls ~~that are ADR-enabled~~.

## Purpose

The purpose of these ~~Joint IOU ADR~~ gGuidelines 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 SMB customers), in compliance with Ordering Paragraph (OP) 29 of D.17-12-003.

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

- Appendix A – Program Rules and Eligibility Requirements for Utilities' Residential ADR Program
- Appendix B – Program Rules and Eligibility Requirements for Utilities' Established Large Non-Residential ADR Program (i.e. Customized ADR Program)
- Appendix C – Program Rules and Eligibility Requirements for Utilities' Established SMB ADR Program (i.e. Fast Track or Express ADR Program)

## Guiding Principles ~~Guidelines and Policies~~

~~Guiding principles~~ Guidelines and policies affect the implementation and administration of the Statewide ADR Program. ~~Guiding Principles~~ Guidelines and policies also serve as a foundation upon which the 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 ~~Guiding Principles~~ Guidelines and Policies

Auto-DR ~~Rules and Guiding Principles~~ Guidelines and Policies Adopted in D.09-08-027

- Authorizes sd Utilities to require a Qualifying DR Program enrollment and participation requirement to receive incentives.

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<sup>2</sup> PG&E started to offer residential ADR incentive to Smart Thermostat in September 2017

- Required reporting of incentive commitments into Utilities' DR CPUC Monthly Report.
- Established consistent incentive amounts for the IOUs TA&TI

*Auto-DR ~~Guidelines and Policies~~~~Rules and Guiding Principles~~ 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 Utilities 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.

*Auto-DR ~~Guidelines and Policies~~~~Rules and Guiding Principles~~ Adopted in D.14-05-025*

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

*Auto-DR ~~Guidelines and Policies~~~~Rules and Guiding Principles~~ 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.

*Auto-DR ~~Guidelines and Policies~~~~Rules and Guiding Principles~~ 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 was approved as amended.
- SDG&E's Auto Demand Response Program was approved as amended.

*Auto-DR ~~Guidelines and Policies~~ ~~Rules and Guiding Principles~~ Adopted in D.18-11-029*

- Affirmed that the Commission did not establish a requirement that the Utilities must provide Auto Demand Response control incentives for supply side programs subject to cost-effectiveness analyses nor did the Commission prohibit the Utilities 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 Utility 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.

## **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 Auto DR 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 Utilities shall develop proposals to address the issues and serve them on stakeholders no later than May 1 of each year, beginning in 2019.
- The Utilities 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 Utilities 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 Utilities 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:

- Review of the approach to calculate control incentives;
- Implementation of the policy that Reliability Demand Response Resources are not eligible to receive auto demand response control incentives;
- Determination of the frequency of control incentives;
- Calculation of incentive cost-effectiveness;

- 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
- Development of criteria to determine the order for PG&E to evaluate load impacts attributable to the devices.

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

IOU Program Name	SCE PCT Incentive Program		PG&E AutoDR Incentive Program	SDG&E Technology Deployment (TD) Program
Customer Segment	Residential ( <i>Bundled Only</i> )	Residential & SMB (<200kW)	Residential	Residential
Qualifying DR Programs <sup>3</sup>	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.		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 <sup>4</sup>		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 (eventually same process and payment structure as EE incentives; TBD in mid-cycle)	Rebate check to customer	Gift card issued to customer
Frequency of Incentives	Technology Useful Life (currently 11 years per the approved EE workpaper)			5 years (depreciation period used in DR C/E calculations)
Evidence of Purchase	Device registration and verification w/ authorized 3rd party	Evidence of device registration and verification w/ an authorized 3rd party	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 <sup>5</sup>	PTR-ET-DLC 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	<a href="https://pages.email.sce.com/scesmartbonus/">PTR-ET-DLC Landing Page https://pages.email.sce.com/scesmartbonus/</a>	<del>Online</del> <a href="https://images.enervee.com/image/upload/q_auto:eco/v1547275948/email/SCE/smart-thermostat-incentive-form_v3_wcaq_linked.pdf">SCE Marketplace https://images.enervee.com/image/upload/q_auto:eco/v1547275948/email/SCE/smart-thermostat-incentive-form_v3_wcaq_linked.pdf</a>	PG&E eRebate and hardcopy application process (www.pge.com/rebates)	Online
Double Dipping Validation (cannot receive multiple incentives)	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.

<sup>3</sup> Externally contracted demand response resources (e.g. external to the IOU portfolio and DRAM) are not eligible to receive auto demand response control incentives. For example, externally contracted demand response resources are demand response resources procured through a utility Request For Offer (RFO), such as SCE's Local Capacity Resource (LCR) RFO or Preferred Resources Pilot (PRP) RFO.

<sup>4</sup> Customers that receive a free smart thermostat through an existing ratepayer-funded incentive program or pilot are not eligible for an additional PCT incentive.

<sup>5</sup> Auto Demand Response 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 Large C&I ADR Incentives

IOU Program Name	SCE ADR Customized	PG&E ADR Program	SDG&E ADR Program
Customer Segment	Large Commercial, Industrial, & Agricultural (must provide at least 30kW of automated load reduction)	Large Commercial, Industrial, & Agricultural	Commercial, Industrial, & Agricultural
Qualifying DR Programs <sup>6</sup>	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 <a href="#">Letter of Agreement (LOA)</a>	Not Applicable	
Incentive/Rebate Recipient	Rebate check issued to customer		
Frequency of Incentives	One time. Customer can re-apply for incentives if they can demonstrate incremental kW.	Technology Useful Life	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 <del>(6) Any</del> other documents related to the Project, Project Site, measures, load reduction (kW) or otherwise requested by SDG&E.
Controllability/Technology Registration Requirement	<del>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 Utility 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. The control must be able to communicate and demonstrate operability using the Open Auto Demand Response communication protocols and standards (currently OpenADR 2.0a or 2.0b)</del>		
Eligible Measures <sup>7</sup>	ADR enabled equipment that facilitates sitewide 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		

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

<sup>7</sup> ~~Auto Demand Response 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 SMB ADR Incentives

IOU Program Name	SCE PCT Incentive	SCE ADR Express <sup>8</sup>	PG&E Fast Track	SDG&E Small Commercial Energy Management Pilot <sup>9</sup>	SDG&E TD Program	
Customer Segment	See details in Appendix A	Small Retail Stores, Small Office (<100,000 sq ft), and Food Stores (including liquor stores)	SMB	SMB (with no less than 3 locations: =<20kW peak demand per site)	Commercial	
Qualifying DR Programs <sup>10</sup>		CBP, CPP, RTP, PDR DRAM, or Other Qualifying Pilots	PDP, CBP, PDR DRAM, SSP and XSP	CBP, CPP, PDR DRAM or Other Qualifying Pilots	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		Must be enrolled in a Qualifying DR Program for at least 24 consecutive months		
Incentive Type		Deemed		Calculated	Deemed	
Incentive Structure		100% Up-Front				
Incentive Level		Up to \$300/kW	Up to \$200/kW		TBD (based upon \$100/kW)	
Incentive Calculation Methodology		Incentive based upon pre-determined kW reduction potential of the specific measure		Incentive based upon verified dispatchable load reduction		
Incentive Project Cap of Eligible Costs		100% of project cost		Capped at 50% of the actual project cost (including the purchase price & costs for installation by a third-party)		
Incentive/Rebate Cap		\$1 million per customer per funding cycle (Incentive requests >\$200k require a Letter of Agreement)	Not Applicable	\$10,000 or cost cap, whichever is lower		
Incentive/Rebate Recipient		Rebate check issued directly to customer				
Frequency of Incentives		One time. Customer can re-apply for incentives if they can demonstrate incremental kW.	Technology Useful Life	One time		
Evidence of Purchase		Customers must provide receipts for actual costs incurred	Customers must provide receipts for actual costs incurred	Customers require to invoices and/or documentation to support measure costs. Such documents must comply with SDG&E's SBCP Invoicing Guidelines.		
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 <sup>11</sup>		Systems that control standard lighting and HVAC technologies, IOUs may add controls for different end use technologies as appropriate		All controllable devices that meet communication protocol requirement are commercially available and are cloud based.		
Application Process	Submission of hard copy or online application and customer agreement					

<sup>8</sup> 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 utility Request For Offer (RFO) solicitations, unless explicitly exempted.

<sup>9</sup> Part of AB793. Marketed as the Small Business Real Time Energy Manager (SBREM).

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

<sup>11</sup> Auto Demand Response 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.

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