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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company (U39E) for Approval of Demand Response Programs, Pilots and Budgets for Program Years 2018-2022.	Application 17-01-012
And Related Matters.	Application 17-01-018 Application 17-01-019

JOINT INVESTOR OWNED UTILITIES (IOU) UPDATE ON PROGRESS OF STRATEGY PROPOSAL FOR BATTERY STORAGE PARTICIPATION IN AUTO DEMAND RESPONSE

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JOINT INVESTOR OWNED UTILITIES (IOU) UPDATE ON PROGRESS OF STRATEGY PROPOSAL FOR BATTERY STORAGE PARTICIPATION IN AUTO DEMAND RESPONSE

In accordance with Decision 18-11-029, Ordering Paragraph (OP) 10, Southern California Edison Company (SCE) hereby submits this progress report on the overall strategy for battery storage participation in Auto Demand Response. This progress report was prepared jointly and is being served on behalf of SCE, Pacific Gas and Electric Company (PG&E), and San Diego Gas & Electric Company (SDG&E).[1]

[1] In accordance with Rule 1.8(d), SCE confirms that PG&E and SDG&E have authorized SCE to file this joint update on their behalf.

Respectfully submitted,

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/s/ Robin Z. Meidhof

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March 7, 2019

Joint Investor Owned Utilities'

Progress Report of the Discussions Held

with Stakeholders on the Overall Strategy Proposal for

Battery Storage Participation in Auto Demand Response and

Final Proposal Recommending Solutions

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Purpose

Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE), (collectively the IOUs) are providing a report to satisfy the two reporting requirements identified in Decision (D.)18-11-029, Ordering Paragraph (OP) 10 directing the IOUs to draft and submit: (1) By March 7, 2019, a progress report of the discussions held with stakeholders on the overall strategy proposal for battery storage participation in Auto Demand Response; and (2) By April 15, 2019, a final proposal recommending solutions to the six issues identified in OP 10.

Background

On January 17, 2017, each IOU filed an application with the California Public Utilities Commission (CPUC or Commission) for approval of their demand response portfolio and budgets for the program period 2018-2022.[1] On December 21, 2017, the CPUC issued D.17-12-003 adopting PG&E, SDG&E, and SCE's 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 a number of unresolved issues, including guidelines for the Automated Demand Response (Auto-DR) control incentive policy.

Pursuant to D.17-12-003, OP 29, on February 20, 2018, the IOUs submitted guidelines for the Auto-DR control incentive policy (Auto-DR Guidelines). On May 8, 2018, the assigned Administrative Law Judge (ALJ) facilitated a workshop to discuss the IOUs' Auto-DR Guidelines. During the May 8th workshop, stakeholders noted concerns on the mechanics of offering DR control incentives to Demand Response Auction Mechanism (DRAM) participants and the eligibility for incentives from the IOUs' Auto-DR Technology Incentive (TI) Programs, particularly incentives for battery energy storage controls.

On June 15, 2018, the assigned ALJ issued a ruling directing parties to respond to a series of questions on a number of issues, including questions regarding the Auto DR Guidelines and Adopted Policies (Guidelines). 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 determined the proceeding (A.17-01-012 et al) should remain open to consider a number of unresolved issues, including a strategy and policies for battery storage controls in the Auto-DR Guidelines.

[1] PG&E, SDG&E, and SCE each filed a Demand Response (DR) application for approval of their respective 2018-2022 DR programs and budgets; see PG&E, SDG&E, and SCE's Application (A.)17-01-012, A.17-01-018, and A.17-01-019, respectively.

CPUC Decision 18-11-029 acknowledged the need to establish policies for battery energy storage controls as it applies to the Auto-DR Guidelines and recognized that the record is limited and does not sufficiently provide justification to approve Auto-DR incentives for battery storage controls at this time. The relationship between battery storage and Auto-DR is an emerging issue that was not initially contemplated by the Commission in current and previous DR proceedings.[2] Battery storage technologies and controls were not present in the marketplace at the time the Auto-DR TI Program was established.[3] Thus, the current design of the Auto-DR TI Program may not be an appropriate design for battery energy storage controls since it was primarily designed to automate the load reduction of commercial buildings and industrial end uses such as heating, ventilation and air conditioning (HVAC) systems, lighting, and industrial processes.

CPUC D.18-11-029, OP 10, directed Energy Division Staff to initiate a stakeholder process to develop an overall strategy proposal for battery storage controls in Auto-DR and to address and develop a consensus proposal for the following questions/issues:

a) Should the Commission authorize the Utilities to continue to provide auto demand response control incentives for battery storage controls to non-residential customers?

b) Should the Commission allow residential customers to receive an incentive for battery storage controls?

c) Should the Commission limit the auto demand response control incentives for battery storage to hardware and software costs, as currently provided by PG&E?

d) Should the Commission adopt the same incentive structure developed in the annual Guidelines update process established in Ordering Paragraph No. 8 or should the Commission adopt a separate control incentive structure for battery storage controls?

e) If the Commission adopts a separate control incentive structure for battery storage controls, what should the structure entail?

f) What precautions should the Commission adopt to ensure ratepayers are not paying more than one incentive for the same control?

[2] D.18.11-029, p.58
[3] *Ibid*

Progress of the Stakeholder Process

January 10, 2019 – Teleconference

On January 10, 2019, the Energy Division hosted a teleconference with various stakeholders, including SCE, PG&E, and SDG&E Auto-DR and SGIP staff. This teleconference was conducted to engage stakeholders and inform the agenda for the stakeholder workshop on January 31, 2019. PG&E and the Center for Sustainable Energy presented information about the Self-Generation Incentive Program (SGIP), including information about costs of communications and controls that are eligible for SGIP incentives. A copy of their SGIP Presentation is included in Attachment A. Below are some notable information about the Self-Generation Incentive Program:

- SGIP does not require participants to install communications or controls with their battery energy storage;
- SGIP does not specify types of communications and/or controls if a customer does want to install them.
- SGIP does not require or collect data or information which indicates which projects received incentives to pay for controls.
- Battery energy storage control costs are an allowable cost under SGIP.

During the SGIP presentation, it was noted that 100% of the project costs are eligible for SGIP incentives. On average, based on the SGIP incentive calculation method, customers SGIP incentives only receive about 41% (this % may change over time) of a project's total eligible costs; therefore, approximately 59% of a battery energy storage SGIP project does not receive SGIP incentives. SGIP does not require customers to use the battery at any specific time of day; however, SGIP does require customers to run the battery a specified number of hours per year. SGIP does allow customers to use their SGIP batteries in their demand response participation. Thus, an SGIP customer that is also enrolled in a DR Program can utilize and apply the battery discharges/run time toward the customer's DR program event performance and towards their annual SGIP battery run requirement.

The California Energy Commission (CEC) provided an update on Title 24 requirements for demand response controls. Beginning January 1, 2020, residential batteries will have a list of requirements, including the Advanced Demand Response Control requirement in order to qualify for additional compliance credit. The Advanced Demand Response Control requirement requires that either the control itself be OpenADR certified or that the cloud which controls the battery be OpenADR certified. Thus, Auto DR Control Incentives is not needed because the functionality is already required and built into the battery system.

Battery integrators (Enel X, AMS, ENGIE, and Sunrun) presented whether Auto-DR incentives would be of interest to them. Most battery integrators noted that they

manage batteries from their cloud, thus specific or add-on Auto-DR controls or communications are not necessary for them to participate in an IOU's demand response program or the Demand Response Auction Mechanism (DRAM). Battery integrators explained that they are primarily interested in value/service stacking to achieve a better cost-benefit ratio for battery energy storage; thus, the capacity and/or energy incentives/benefits of participating in a DR program or contract is of greater interest to them. Battery integrators focus on the value of the customer's load/demand management rather than Auto-DR incentives for controls and communications to participate in DR programs. If the stacked value of time-of-use (TOU) and DR program incentives are minimal, a control incentive could make participation slightly more attractive.

January 31, 2019 – Workshop

On January 31, 2019, the Energy Division hosted an in-person workshop with various stakeholders, including representatives from the IOUs, battery manufacturers and integrators, the Self-Generation Incentive Program (SGIP) measurement & verification evaluator (Itron), and industry organizations such as the California Energy Storage Association (CESA) and OpenADR Alliance. The objective of the workshop was to:

- Examine whether controls for battery storage should be eligible for Auto-DR control incentives, and why;
- Explore the fact that communication protocols differ between IOUs' systems and CAISO's systems (IOUs' DR automation server (DRAS) issues event signals using the OpenADR communication protocols, while the California Independent System Operator (CAISO) uses Distributed Network Protocol (DNP) 3.0) and understand which path stakeholders support and why; and
- Understand incremental capacity value of batteries (above demand charge and bill management) to provide demand response, only if the stakeholders determine that controls for battery storage should be eligible for Auto-DR control incentives.

Energy Division (ED) Staff facilitated the workshop and provided stakeholders with an introduction and an overview of the Commission's objectives for the stakeholder process directed in D.18-11-029. ED Staff also provided a recap of battery integrator positions from the January 10, 2019 teleconference.

The first presenter from CESA supports a policy that allows battery energy storage controls to be eligible for Auto-DR incentives for two reasons. First, CESA believes there are smaller battery systems that are not controlled through the cloud and may need Auto-DR incentives to add/install controls. Second, there may be legacy SGIP systems that can benefit from Auto-DR controls and incentives. By legacy, CESA

referred to older energy storage systems that may not have the sophisticated cloud-based control systems that we see today, from companies such as Enel X and Stem, but rather they may have very basic hardwired operations in response to TOU rates. There may also be some systems that do not have Energy Management Systems (EMS) and were never really intended to participate in dispatchable automated demand response for grid services that may choose to do so at a later time. PG&E pointed out that from its experience implementing the Auto-DR Program, smaller systems, such as those owned by small or medium business customers, tend to rely on cloud-based controls because it is more effective to control small battery energy storage systems through aggregation rather than individually; thus, installing Auto-DR control capability at the site for small systems may not be efficient. In addition, if the battery manufacturers or integrators choose not to aggregate these smaller systems to provide grid service, any DR Provider (DRP) with the capability to leverage these battery systems may do so through aggregator DR programs. It is unclear to the IOUs if CESA has any data to support the number of smaller battery systems that choose not to leverage the cloud-based control and the reason behind such choice. In response to CESA's second reason, the IOUs are unclear how many legacy SGIP systems did not include controls and may be interested in installing additional Auto-DR controls and incentives. The IOUs would be interested in additional data to understand the scope. The IOUs are of the opinion that CESA did not provide enough data or evidence on the two justifications that support its position at this time.

Other battery integrators, including STEM, mentioned that they do not want to commit capacity specifically for DR or allow someone else to control the battery for what they see as low compensation by the DR programs and the Auto DR control incentive. Additionally, there was sentiment by battery integrators that California DR and rate policies, including non-coincident demand charges, do not align with the state's GHG policy goals, and would need to be addressed for batteries to have appropriate incentive levels and eliminate barriers.

PG&E also pointed out that customers who want an Auto-DR enabled EMS system to control various types of site load (e.g. HVAC and lighting), which may include a storage device, are eligible to receive Auto-DR incentives; however, the battery control portion of the costs and capacity would not be eligible for the Auto-DR incentive and would be factored out of the payment to the customer.

The IOUs also presented at the January 31st workshop. At this time, the IOUs all generally support the current CPUC policy which prohibits Auto-DR incentives for battery energy storage controls. The IOUs note the prohibition of Auto-DR incentives for battery energy storage controls does not prohibit or deter a customer from using their battery energy storage systems during a demand response event. The IOUs support customers leveraging their battery system in their participation in DR events. Last year, PG&E proposed to the statewide SGIP team that the program require participating

customers be enrolled in a DR Program. Representatives from PG&E, SCE and SDG&E presented their position and explained how the IOUs jointly reached their position based on information provided at the January 10th teleconference. A copy of the IOUs' presentation is included in Attachment B. The IOUs' positions, as discussed at the January 31st workshop, is expanded and provided in the responses to the six questions at the end of this report.

Itron presented the battery energy storage-DR observations from the 2017 SGIP Advanced Energy Storage Impact Evaluation.[4] Itron provided a high-level overview of the SGIP study, then provided details of the impact evaluation, such as sample population, and discussed the SGIP impact based on the CAISO's load duration curve. Itron outlined the results of three DR Participants' event performance using their SGIP systems. There was discussion regarding the report's findings that "For most [DR] programs, there is very little variation in storage utilization from days where DR events were called compared to non-event days."[5] Itron further explained that battery energy storage systems are primarily used for a customer's day-to-day demand management; however, customers were still shown how to use their battery systems during demand response events.

During both the January 10th teleconference and the January 31st workshop, battery integrators focused their discussions on increasing the value of TOU rates and DR program incentives (e.g. create value from stacking services provided). They provided suggestions on how to increase the value of the battery system, such as providing capacity in multiple use applications. A representative from CESA also raised the issue of current retail DR baselines not being a good fit for customers with battery storage systems. While battery integrators recommended increasing the incentives of TOU rates and DR programs, rate and DR tariff/program design is outside of the scope of this Auto-DR stakeholder process. The IOUs recommend that battery integrators provide their feedback on DR program design and rate structures in future appropriate proceedings.

Final Proposal Recommending Solutions to the Six Issues Identified in D.18-11-029, OP 10.

The IOUs collectively support discontinuing Auto-DR incentives for battery energy storage controls based upon discussions from the January 10th teleconference and January 31st workshop. Battery storage installers who participated in the meetings affirmed they are more focused on value stacking for their customers and are not

[4] http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Demand_Side_Management/Customer_Gen_and_Storage/2017_SGIP_AES_Impact_Evaluation.pdf

[5] Itron. (2018). *2017 SGIP AES Impact Evaluation*. p. 4-66.

particularly interested in participating in the existing DR qualifying programs in order to receive Auto-DR incentives. The battery storage installers' suggestions of value stacking is outside of the scope of the stakeholder process and D.18-11-029, OP 10.

Below are the IOUs' joint responses to the six issues identified in D.18-11-029, OP 10.

1) **Should the Commission authorize the Utilities to continue to provide auto demand response control incentives for battery storage controls to non-residential customers?**

   Joint IOU Position: No. The IOUs collectively support not offering Auto-DR incentives for energy storage controls at this time should the Commission prohibit non-residential customers from receiving an Auto-DR control incentive from demand response programs within the emerging and enabling technologies category (budget category 4). Based upon discussions from the January 10th teleconference and January 31st workshop, stakeholders stated preferences to changing rate structures and DR program designs rather than changing the current Auto-DR Guidelines for battery energy storage controls. Through the stakeholder process, it was determined that most batteries are equipped with controls, either by the manufacturer, or installer, which allows the battery to be controlled (by third-parties or customers) automatically for load management purposes by third-parties or customers.

2) **Should the Commission allow residential customers to receive an incentive for battery storage controls?**

   Joint IOU Position: No. The IOUs collectively support not offering Auto-DR incentives for energy storage controls at this time should the Commission prohibit residential customers from receiving an Auto-DR control incentive from demand response programs within the emerging and enabling technology category (budget category 4). Based upon discussions from the January 10 th teleconference and January 31 st workshop, stakeholders stated preferences to changing rate structures and DR program designs rather than changing the current Auto-DR Guidelines for battery energy storage controls. Through the stakeholder process, it was determined that most batteries are equipped with controls, either by the manufacturer, or installer, which allows the battery to be controlled (by third-parties or customers) automatically for load management purposes by third-parties or customers.

3) **Should the Commission limit the auto demand response control incentives for battery storage to hardware and software costs, as currently provided by PG&E?**

   Joint IOU Position: The IOUs support prohibiting Auto-DR control incentives for battery energy storage at this time, based upon discussions from the January 10th teleconference and the January 31st workshop.

4) **Should the Commission adopt the same incentive structure developed in the annual Guidelines update process established in Ordering Paragraph No. 8 or should the Commission adopt a separate control incentive structure for battery storage controls**

   Joint IOU Position: The IOUs support prohibiting Auto-DR control incentives for battery energy storage at this time; therefore, no incentive structure is proposed.

5) **If the Commission adopts a separate control incentive structure for battery storage controls, what should that structure entail?**

   Joint IOU Position: The IOUs support prohibiting Auto-DR control incentives for battery energy storage at this time; therefore, there are no recommendations of a separate control incentive structure for battery storage controls.

6) **What precautions should the Commission adopt to ensure ratepayers are not paying more than one incentive for the same control?**

   Joint IOU Position: The IOUs support prohibiting Auto-DR control incentives for battery energy storage at this time and have concerns that adopting Auto DR Guidelines for battery controls could result in double payments. Specifically, it is difficult to isolate the incremental or Auto-DR only portion of the costs of the battery controls which is needed to ensure ratepayers are only paying for the incremental costs of the controls and that ratepayers are not paying for the same thing twice.

Attachment A

SGIP Presentation at January 10 AutoDR Battery Stakeholder Teleconference

Auto Demand Response and SGIP Call

January 10, 2019

Agenda

- SGIP Goals
- System Operation and Reporting Requirements
- SGIP Incentive and Demand Response

SGIP Goals

P.U. Code 379.6. (a) (1):

[I]ncrease deployment of distributed generation and energy storage systems to facilitate the integration of those resources into the electrical grid, improve efficiency and reliability of the distribution and transmission system, and reduce emissions of greenhouse gases, peak demand, and ratepayer costs.

SGIP Goals

Environmental: Reduce GHGs and criteria air pollutants; limit other environmental impacts (water use); facilitate renewables integration.

Grid Support: Reduce/Shift peak demand; improve efficiency, reliability of T&D system; lower grid costs; provide ancillary services and; ensure reliability of DERs.

Market Transformation: Support technologies that have the potential to thrive in future years without rebates.

System Operation and Reporting Requirements

Utilities and SGIP Program Administrators do not operate storage systems

Systems are typically operated by 3rd party developers, but they can be operated by the host customer.

Systems must discharge either 260, 130, or 52 cycles per year depending on customer class and year applied and must meet a certain round trip efficiency. But the SGIP does not send signals on how/when to operate systems.

The CPUC is currently developing a GHG Signal that provides marginal GHG emissions data, but systems are not required to respond to the signal. However, systems will be required to reduce GHGs on an annual basis. Found at:

http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Demand_Side_Management/Customer_Gen_and_Storage/Revised%20SGIP%20GHG%20Staff%20Proposal_Clean_12-27-18.pdf

System Operation and Reporting Requirements

Typical energy storage use cases:

- Demand charge mitigation/peak shaving (nearly all non-residential projects)
- Solar self-consumption (most residential projects applying as of 2017)
- TOU energy arbitrage (residential and some non-residential)
- Demand response (certain developers)
- Wholesale Market participation
- Niche applications – pilot projects, microgrid

Projects can provide back-up but cannot be back-up only

***It is currently up to the customer and system operator how and when the system will be used, not the IOUs/Program Administrators

System Operation and Reporting Requirements

Systems that are sized 30 kW and larger must submit monthly data

Data is in 15-minute intervals and includes energy charged and discharged for each interval

Revenue-grade metering and a Performance Data Provider are required for these systems

The data is used to make annual incentive payments and for annual Impact Evaluation reports

System Operation and Reporting Requirements

While many storage systems use automated controls and communication, there is no requirement that storage systems be able to respond to external signals.

There are no requirements on what controls or communication platforms systems use.

Energy Storage Incentive Calculation

$/watt-hour*

Example:
$.35/Wh incentive
100 kWh system
$.35/Wh * 100,000 Wh = $35,000 total incentive

*rated capacity (kW), system duration (hours), and manufactured in CA can impact the incentive, but the incentive is generally derived by multiplying the energy rating by the incentive amount

Incentive is capped at 100% of eligible system costs

In 2017-2018, the SGIP incentive averages 41% of total eligible system costs

Data available in “Weekly Statewide Report” at https://www.selfgenca.com/home/resources/
non-cancelled projects, both residential and non-residential

Energy Storage Incentive Calculation

Systems 30 kW and larger receive half the incentive up front while the other half is paid in increments annually for 5 years, based on performance data

If systems cycle per SGIP requirements, they recoup full payment – cycle 130 or 260 times per year (depending on which year they applied)

No requirement on when/how systems cycle, only that they cycle either 260 or 130 times annually.

*note that the December 31, 2018 Revised Staff Proposal for the GHG Signal proposes reducing the cycling requirement for all non-residential projects to 130.

**The type of controller and communication platform does not impact the incentive calculation

Energy Storage Incentive Calculation Example

2 energy storage systems each sized at 100 kWh

1 project has an Open ADR 2.0b-certified controller

1 project has a non Open ADR-certified controller

Both projects would receive the same incentive (assuming the kW, duration of discharge, $/Wh incentive are the same)

Eligible Project Costs

Engineering feasibility study costs
Engineering and design costs
Environmental and building permitting costs
Equipment capital costs
Construction and installation costs
Interconnection costs, including:
    a. Electric grid interconnection application fees
    b. Metering costs associated with interconnection
Warranty and/or maintenance contract costs
System metering, monitoring and data acquisition equipment
Electricity storage devices
Sales tax and use tax.

Eligible Project Costs

System controller not explicitly called out

SGIP Program Administrators have not asked for detailed cost information on the system controller. It is assumed to be included in either the “capital costs” or “electricity storage device”

SGIP and Demand Response

D.16-06-055 pg 38 – SGIP-incentivized energy storage systems are allowed to participate in demand response programs

2017 SGIP Advanced Energy Storage Impact Evaluation:

“The report finds that … storage participating in demand response programs … can provide customer, environmental and system-level benefits simultaneously.” Foreword of document

“The CPUC should consider ways to increase the availability of DR programs to SGIP [energy storage] participants and the PAs should investigate ways to increase participation of SGIP [energy storage] in DR programs.” page 1-26

Attachment B

Joint IOU Presentation at January 31 AutoDR Battery Stakeholder Workshop

Pacific Gas and Electric Company®

SDGE
A Sempra Energy utility

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Auto Demand Response Control Incentive Policy

JANUARY 2019

Auto-DR Control Incentive Policy

- The Automated Demand Response (ADR) control incentives offset ADR control costs to enable a customer's participation in demand response (DR) programs utilizing software and systems to effectuate their load drop with no manual intervention.
- Definition of an ADR control, per D.18-11-029:

  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.*

  ** 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.*
- Auto DR controls must be able to communicate and demonstrate operability using the current OpenADR communication protocols and standards.[1]

[1] D.18-11-029, OP 6.g-i, allows controls for residential and SMB (small and medium businesses) to be controlled through the cloud, whereas controls paid through the Customized Auto DR technology incentive program are required to be onsite.

Auto-DR Control Incentive Eligibility Rules

- Participants in the following DR programs are not eligible for ADR incentives:
  - Demand Response Auction Mechanism (DRAM) RDRR resources[1]
  - DR resource contracts outside of the DR portfolio[2]
  - Base Interruptible Program
- Participants in the following DR programs are eligible for ADR incentives, list may vary slightly among IOUs :
  - Capacity Bidding Program
  - Critical Peak Pricing or Peak Day Pricing
  - Real-Time Pricing
  - DRAM PDR resources
  - Supply-side DR pilots
- Notable Ineligible Control Costs
  - Cloud portion of a control
  - Battery storage controls [3]

[1] D.18-11-029, pgs. 46-47.
[2] D.18-11-029, pg. 49.
[3] D.18-11-029, pg. 44. Utilities are prohibited from providing Auto DR incentives for battery controls, except in the case of incentive applications received before Oct. 26, 2018.

Joint IOU Position on offering an ADR Control Incentive for Battery Energy Storage Controls

IOUs' Position: Collectively, the IOUs do not support offering an ADR incentive for battery controls at this time.

Justification:

- Most batteries are equipped with some controllability, either by the manufacturer, or installer, which allows the battery to be controlled (by 3rd parties or customers) automatically for load management purposes.
- Installer proposals include costs that are not covered under the Auto-DR Control Incentive program such as:
  - cloud services
  - controls for customers participating in an externally contracted DR resource
- Under the current SGIP program requirements, IOU's cannot enforce or ensure customers are not double-dipping (i.e. receiving multiple incentives for the same thing).
  - SGIP allows Auto-DR control costs as an allowable cost, but does not have requirements that specify Auto-DR capability or costs. thus the enforcement of double-dipping is not possible.
- Several battery storage installers confirmed in the January 10th webinar they're more focused on the value/service stacking and how the market can support price signals and incentives through DR program participation
  - Creating a DR program is outside the scope of this workshop and would need to be revisited once the CPUC establishes the goals for Demand Response programs.
  - DR programs are subject to cost effectiveness
  - DR programs are technology agnostic