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CALIFORNIA ENERGY COMMISSION

CALIFORNIA NATURAL RESOURCES AGENCY

MODIFIED PROPOSED DRAFT PROGRAM GUIDELINES

Demand Side Grid Support (DSGS) Program Guidelines, Fourth Edition

(Assembly Bill 205, Assembly Bill 209, 2022)

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California Energy Commission

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DISCLAIMER

These modified proposed draft guidelines are anticipated to be considered by the California Energy Commission (CEC or Energy Commission) after considering public comments. The requirements in these guidelines are based on applicable law, including Public Resources Code Section 25792 and Section 18 of Assembly Bill 205 (Ting, Chapter 61, Statutes of 2022), as well as staff analysis and public input. As a staff proposal, the proposed draft guidelines do not represent the views of the CEC or of the State of California. This draft document has not been approved or disapproved by the CEC, nor has the CEC passed upon the accuracy or adequacy of the information in this document.

PREFACE

This *Modified Demand Side Grid Support Program Draft Guidelines, Fourth Edition,* includes changes to the proposed guideline language from the initial *Proposed Demand Side Grid Support Program Draft Guidelines, Fourth Edition,* posted on October 4, 2024 (Initial Draft, TN 259451). Proposed language appears in underline (<u>example</u>) and proposed deletions appear in strikethrough (~~example~~).

ABSTRACT

These program guidelines for the Demand Side Grid Support (DSGS) Program establish the rules for the program, including eligibility requirements, participation process, and incentive options. Created by Assembly Bill (AB) 205 (Ting, Chapter 61, Statutes of 2022) and expanded by Assembly Bill 209 (Ting, Chapter 251, Statutes of 2022) as part of the Strategic Reliability Reserve, the DSGS Program provides incentives to reduce customer net-energy load during extreme events with upfront capacity commitments and per-unit reductions in net load.

Keywords: AB 205, AB 209, Strategic Reliability Reserve, DSGS, load reduction, extreme event

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What's New in These Guidelines?

This section summarizes the changes in the proposed fourth edition of the Demand Side Grid Support (DSGS) guidelines as compared with the previous version, *DSGS Program Guidelines, Third Edition* (May 2024).

Chapter 1: Program Overview

This chapter:

- Updates and clarifies the summary of key program design elements.
- Clarifies program background and purpose
- Updates program budget based on the Budget Act of 2024.

Chapter 2: Eligibility and Participation

This chapter:

- Makes clarifying and grammatical changes and updates section references.
- Provides brief descriptions of the available DSGS incentive options.
- Clarifies requirements for participants selecting different incentive options for each load reduction resource.
- Clarifies requirements and timeline for publicly owned utilities outside the California Independent System Operator (California ISO) balancing authority (BA) area to submit alternative dispatch requirements and associated performance measurement criteria to those described in the guidelines for any DSGS incentive option.
- Requires DSGS providers to submit Incentive Option 1 enrolled participation reports before each program season.
- Adds participant information to the enrolled participation reports for participants enrolled with an aggregator or directly with the CEC in Incentive Option 1.
- Establishes enrollment and reporting requirements for the newly added Incentive Option 4.
- Clarifies providers are responsible for certifying remote control capability of storage resources participating in Incentive Option 3.
- Adds regular dispatch reports for Incentive Option 2 and performance reports for Incentive Options 3 and 4.

Chapter 3: Incentive Option 1: Emergency Dispatch

This chapter:

- Clarifies that residential customers are not eligible to participate in Incentive Option 1.
- Clarifies the definition of "combustion resources."
- Removes the one-time "controllable generation incentive" for fossil fuel-powered backup generators.

Chapter 4: Incentive Option 2: Incremental Market-Integrated Demand Response Capacity Pilot

This chapter:

- Clarifies that Incentive Option 2 participants must be registered to an Option 2 provider.
- Makes clarifying and grammatical changes.

Chapter 5: Incentive Option 3: Market-Aware Storage Virtual Power Plant Pilot

This chapter:

- Updates the minimum aggregation size requirements for storage virtual power plants (VPPs).
- Increases the maximum allowable discharge at a customer site during any hour of a program event.
- Allows for dual participation in the DSGS Program and as a California ISO proxy demand response or reliability demand response resource for export-only portion of storage resources discharge.
- Clarifies participation rules for providers that operate storage VPPs on behalf of partner companies.
- Updates enrollment requirements for participants in Incentive Option 3.
- Establishes day-ahead and day-of emergency triggers for Incentive Option 3 program events, where the former event is included in monthly demonstrated capacity but the latter event is not.
- Requires storage VPP aggregators to pre-register test events with the CEC and limits the number of test events to one per month.
- Specifies the timing and cadence of future updates to baselines used to calculate demonstrated capacity.

Chapter 6: Incentive Option 4: Emergency Load Flexibility Virtual Power Plant Pilot

This chapter:

- Establishes the eligibility, enrollment process, incentives, program availability and event triggers, and performance measurement method for a new Incentive Option 4: Emergency Load Flexibility Virtual Power Plant Pilot.

Chapter 7: Program Payments

This chapter:

- Clarifies applicable administrative costs incurred by utilities and federal power marketing administrations may be reimbursed directly to the utility or federal power marketing administration, or to the DSGS provider billed for direct costs.

Chapter 8: Administration

This chapter:

- Makes clarifying changes and updates section references.

CHAPTER 1:
Program Overview

A. Summary of Key Program Design Elements

Created by Assembly Bill (AB) 205 (Ting, Chapter 61, Statutes of 2022) as part of the Strategic Reliability Reserve, the Demand Side Grid Support (DSGS) Program compensates eligible customers for reductions in net load during extreme events (as defined in Public Resources Code [PRC] Section 25790.5[b]) achieved through reduced usage or use of backup generation or both.

The DSGS Program has four incentive options. Participants can select different incentive options for each eligible load reduction resource type. Participants may enroll with eligible DSGS providers or, in limited circumstances, directly with the CEC. The four incentive options include:

- Option 1: Emergency Dispatch
- Option 2: Market-Integrated Demand Response Incremental Capacity Pilot
- Option 3: Market-Aware Storage Virtual Power Plant Pilot
- Option 4: Emergency Load Flexibility Virtual Power Plant Pilot

B. Background

AB 205, available at https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB205, requires the CEC to implement and administer the DSGS Program, codified under PRC Section 25792~~.~~, to incentivize dispatchable customer load reduction and backup generation operation as on-call emergency supply and load reduction for the state's electrical grid during extreme events. Assembly Bill 209 (Ting, Chapter 251, Statutes of 2022), available at https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB209, expanded the eligibility of the DSGS Program to include all energy customers in the state, except those enrolled in demand response or emergency load-reduction programs offered by entities under the jurisdiction of the California Public Utilities Commission (CPUC). AB 209 also states the California Energy Commission (CEC), in consultation with the CPUC, may adopt additional participation requirements or limitations.

The DSGS Program provides incentives to reduce customer net load during extreme events with performance-based capacity payments and for per-unit reductions in net load. As part of the state's Strategic Reliability Reserve established in AB 205, the DSGS Program aims to support electric grid reliability beyond normal planning standards by providing incremental load reduction during extreme events, such as heat waves.

Section 18 of AB 205 authorizes the CEC to adopt guidelines for the DSGS Program. Furthermore, PRC Section 25792(e) directs the CEC to develop guidelines to determine

when to implement the program, including which resources are dispatched first to minimize local pollution and emissions of greenhouse gases.

C. Program Budget

DSGS Program funding is authorized under AB 205, AB 102 (Ting, Chapter 28, Statutes of 2023), AB 107 (Gabriel, Chapter 22, Statutes of 2024) and ~~SB~~Senate Bill 108 (Wiener, Chapter 35, Statutes of 2024) with an overall budget of $202.5 million, of which $127.5 million has been appropriated and an additional $75 million is expected to be appropriated in Fiscal Year 2025~~–~~2026. There is no specific restriction on annual spending or allotments for enrolled DSGS providers. Incentive payment is available on a first-come, first-served basis. The CEC will provide estimates and updates of DSGS Program expenditures and available funding annually once activity is reconciled.

CHAPTER 2:
Eligibility and Participation

This chapter contains the program wide eligibility criteria and establishes the process for participating in the program, including enrollment and reporting.

A. DSGS Program Eligibility

1. Eligible DSGS Providers

Eligible DSGS providers include:

a. Retail suppliers as defined in Public Utilities Code (PUC) Section 398.2.

b. Federal power marketing administrations.

c. Aggregators of customers.

i. Before enrolling customers in the service territory of a publicly owned electric utility (POU), aggregators of customers must notify the POU of their intent to enroll customers within the service territory of the utility by providing the information required in Section A.1.c.ii below and obtaining a written statement from each applicable POU that the POU:

- Does not object to the aggregator enrolling the POU's customers to participate in the DSGS Program.
- Will provide the aggregator the data necessary for the aggregator to administer the DSGS Program, as determined by the POU, subject to the aggregator (1) receiving authorization from participants and (2) entering into a data-sharing agreement with the POU, if required.
- Understands incurred costs associated with the DSGS Program pursuant to Chapter 7, Section B, are reimbursable.

Aggregators must provide the CEC a copy of this statement within five business days of receipt. POUs may establish terms and conditions for aggregators to enroll the POU's customers to participate in the DSGS Program, including protocols for communicating and coordinating with the POU regarding program events and the circumstances under which the POU may grant or revoke the aggregator's ability to enroll the POU's customers in the DSGS Program.

ii. Aggregators of bundled and unbundled customers must notify investor-owned utilities (IOUs) and community choice aggregators (CCAs) in writing of their intent to enroll customers within the service territory of the respective load-serving entity. The notice shall include:

- The aggregator's name.

- ~~Which~~ The DSGS incentive option(s) the ~~DSGS provider~~ aggregator will offer to participants.
- A description of the types of customers (such as residential, commercial, industrial, and so forth) and load reduction resources the aggregator plans to enroll in each incentive option.

Aggregators must provide the CEC evidence of this notice within five business days of sending to the IOU or CCA.

Incentive Options 2, 3, and 4 include additional DSGS provider eligibility requirements described in Chapter 4, Section A, Chapter 5, Section A, and Chapter 6, Section A.

2. Eligible DSGS Participants

a. Eligible participants are:
   i. All customers of POUs.
   ii. All customers of federal power marketing administrations.
   iii. The following customers of CCAs, energy service providers, and electrical corporations:
      - Customers participating with backup generators.
      - Customers participating through incentive Option 2, Option 3 or Option 4 described in Chapter 4, Chapter 5, and Chapter 6, respectively.
      - Water agencies, which include water utilities, wastewater facilities, and irrigation districts.
   iv. All customers of tribal utilities.

b. A participant is not eligible to receive incentives if the participant's load-reduction resource with the DSGS provider is:
   i. Enrolled in the Emergency Load Reduction Program or the Base Interruptible Program or the Agricultural Pump Interruptible Program.
   ii. Receiving payment or accounting for the same reduction in use of electricity, including energy export, through any other utility, CCA, or state program, except critical peak pricing rate plans.
   iii. A cogeneration facility with a power purchase agreement.[1]

c. DSGS providers may include additional eligibility requirements for their participants.

d. Customers must also meet the eligibility requirements specific to the incentive option in which they are enrolled, as described in Chapters 3–6.

1 If a participant has a power purchase agreement for a renewable generator at the same site as a cogeneration facility, but not one for the cogeneration facility, this does not make the participant ineligible to participate.

B. DSGS Incentive Options

The DSGS Program has four incentive options, which are described in Chapters 3–6.

i. Option 1: Emergency Dispatch offers energy and standby payments to nonresidential customers that reduce net load during program events triggered based on energy emergency alerts issued by a California balancing authority. Eligible technologies include combustion resources, subject to emergency proclamation, and clean, non-combustion resources.

ii. Option 2: Market-Integrated Demand Response Incremental Capacity Pilot offers a capacity payment based on demonstrated capacity by California Independent System Operator (California ISO) dispatched proxy demand resources that is incremental to existing resource adequacy commitments.

iii. Option 3: Market-Aware Storage Virtual Power Plant (VPP) Pilot offers a capacity payment for behind-the-meter storage VPPs based on demonstrated capacity. Program events are triggered based on day-~~-~~ahead California ISO ~~wholesale~~ energy market prices exceeding a specified price threshold, but the VPP capacity is not actually bid into the energy market. An energy incentive is available for VPPs that respond to a day-of emergency.

iv. Option 4: Emergency Load Flexibility VPP Pilot offers capacity-based compensation for load reduction capacity committed by dispatchable VPPs composed of aggregated smart thermostat-controlled HVAC systems, ~~and~~ electric water heaters, electric vehicle supply equipment (EVSE), stationary batteries, and residential "smart panels." Program events are triggered based on energy emergency alerts issued by a California balancing authority.

Participants may select a different incentive option for each load reduction resource enrolled with their provider, as long as each load-reduction resource has dedicated or distinctly identifiable metering. DSGS providers may limit which incentive options are available to their participants. All load reductions that would not have occurred in the absence of the DSGS Program, including those that result in negative load at the utility meter (that is, exports), are eligible for incentives.

Incentive Options 2, ~~Option~~ 3, and ~~Option~~ 4 are pilot incentive pathways intended to test new program designs. The CEC will prepare a report assessing the performance and cost-effectiveness of these pilots.

POUs outside the California ISO balancing area may develop alternative POU-specific "custom" dispatch requirements and associated performance measurement criteria to those described in Chapters 3–6 if the requirements are suitable to the operations of the applicable balancing authority and contribute to grid reliability within ~~the~~ its balancing ~~authority~~ area. The alternative "custom" proposal may also include a different incentive structure, ~~so long as~~ provided the total incentive rate is not higher than the incentives in Chapters 3–6. The POU "custom" proposal~~s~~ may allow the POU itself, third-party providers, or both to participate as DSGS providers.

POUs outside the California ISO wishing to submit "custom" proposals must submit a description of the proposed incentive structure, dispatch requirements, and performance measurement criteria to the CEC for approval. POUs outside the California ISO may submit a "custom" proposal at any time, but participants may not enroll to participate in the proposed incentive structure unless the CEC has approved the proposal.

C. DSGS Enrollment Process

1. DSGS Provider Enrollment Process

DSGS providers enroll in the program by electronically submitting an application to the CEC.

a. DSGS Provider Application Timing

Applications are accepted on an on-going, first-come, first-served basis.

i. The date and time the CEC receives the electronically submitted complete application will establish the order in the queue for review of DSGS provider applications.

ii. The CEC will notify applicants if the application is incomplete. The applicant will have 10 business days to supplement the incomplete application. Failure to respond within the 10 business days will result in the cancellation of the application.

iii. The cancellation of an application does not preclude an applicant from reapplying.

iv. Applications to enroll as a DSGS provider for Incentive Option 4 will be accepted on an on-going, first-come, first-served basis, but participation must start at the beginning of the program season on May 1st, or on August 1st if not enrolled in time for May 1st.

b. DSGS Provider Application Package

Applicants to be DSGS providers must submit to the CEC the following information in a format provided by the CEC:

i. Legal name of the applicant

ii. Applicant's contact name, title, address, email address, and phone number

iii. Description of how applicant will verify which load-reduction resources are used by participants

iv. Description of how the applicant will verify participant eligibility prior to enrollment of participants

v. ~~Which~~ The DSGS incentive options the applicant will offer to participants

vi. If offering Incentive Option 1:

- Description of how the applicant will implement the dispatch loading order requirements described in Chapter 3, Section D
- Description of how the applicant will verify actual incremental load reduction amounts, including the DSGS provider's method for determining

energy-use baselines and actual energy usage during a DSGS program event

- Indication of which administrative cost structure described in Chapter 7, Section B, the DSGS provider has chosen

vii. If offering Incentive Option 2:

- Description of how the applicant meets the eligibility requirements specific to the incentive option and how the applicant plans to implement the program under the incentive option, including details on how the applicant will allocate incentives to participants
- California ISO Demand Response Provider ID (DRP ID) and an attestation that the DRP has active proxy demand resources (PDRs)

viii. If offering Incentive Option 3:

- Description of how the applicant meets the eligibility requirements specific to the incentive option and the applicant's plans to implement the program under the incentive option, including plan to allocate incentives to participants
- Description of the applicant's plans to implement quality control on submetered charge and discharge data, including minimum standards for data completeness and quality

ix. If offering Incentive Option 4:

- Description of how the applicant meets the eligibility requirements specific to the incentive option and the applicant's plans to implement the program under the incentive option, including plans to allocate incentives to participants
- Description of the applicant's plans to implement quality control on device-level load data or smart thermostat runtime data, including minimum standards for data completeness and quality

x. If the applicant is an aggregator of participants:

- A description of the types of customers (such as residential, commercial, industrial, and so forth) and load-reduction resources the applicant plans to enroll and the utility territories in which the DSGS provider plans to operate

xi. Payee data record (STD-204). If the designated payee has already submitted a complete STD-204 form with a prior reimbursement claim and has received a payment within the past year from the CEC, a new STD-204 is not needed.

xii. Verification in writing of the accuracy and completeness of the information submitted and agreement to the terms and conditions of the DSGS Program guidelines.

c. Application Review and Approval

The CEC will review applications to determine completeness and eligibility. After

approving a complete DSGS provider application, the CEC will provide an electronic DSGS Program enrollment letter to the DSGS provider.

d. Withdrawal

A DSGS provider can voluntarily withdraw from the program, subject to applicable conditions specific to the incentive option, by notifying the CEC electronically in writing. Voluntary withdrawal from the program does not preclude the DSGS provider from reapplying in the future or from submitting a claim pursuant to Chapter ~~6~~7 for program participation prior to withdrawal. Withdrawal from the program will ~~remove~~ result in the removal of all of the DSGS provider's enrolled ~~DSGS~~ participants from the program.

2. Participant Enrollment Process

a. How to Enroll

Except as outlined in the following paragraph, eligible participants must enroll to participate in the DSGS Program through a DSGS provider.

An eligible participant may enroll directly with the CEC only to participate under Incentive Option 1 and only if enrollment through the participant's load-serving entity is not possible. For example, if the load-serving entity is not enrolled as a DSGS provider or is not offering DSGS Program participation for that type of customer or load reduction resource. Residential customers are not eligible for direct enrollment in Option 1. A POU customer participant must obtain a written statement from its POU stating that the POU does not object to the participant enrolling directly in the DSGS Program. The CEC will work with the participant's load-serving entity, as appropriate, to confirm eligibility as soon as practicable.

The required application information for each incentive option is described in Chapters 3–6.

b. Withdrawal

A participant can voluntarily withdraw from the program by notifying the DSGS provider or the CEC if directly enrolled in the program. Voluntary withdrawal from the program does not preclude the participant from reapplying in the future or from submitting a claim pursuant to Chapter 7 for program participation prior to withdrawal.

D. DSGS Program Reporting

1. Enrolled Participation Reports

a. Initial Report Due Date

Within 10 business days of the DSGS provider's enrollment, or as soon as practicable, DSGS providers must submit to the CEC an initial report on enrolled participation with the information required in Sections 1.c, 1.d, and 1.e, as applicable.

b. Ongoing Reporting Due Dates

DSGS providers must submit to the CEC updated enrolled participation reports as detailed below. If a site is not included in a participation report, that site may not be included in performance calculations for the period that is covered by that participation report.

- Incentive Option 1: No later than three business days before the first day of the program season (May-October) and within five business days after any changes to participants enrolled or expected load-reduction resources.
- Incentive Option 2, Option 3, and Option 4: No later than three business days before the first day of each month for all enrollments effective the first calendar day of that month.

Only complete participation reports using the most recent report template version will be accepted. Reporting templates ~~will be~~ are available on the Resources page of the DSGS Program website at https://dsgs.olivineinc.com/resources/.

c. ~~Enrolled~~ Participation Report for Incentive Option 1

The initial report of the program season must include the following information on each participant enrolled under Incentive Option 1, segmented by host utility and balancing authority, in a format provided by the CEC:

- Legal name of the participant
- Participant contact's name, title, email address, and phone number
- If the participant is enrolling with an aggregator or the CEC: applicable utility distribution company (UDC) and~~,~~ load-serving entity (LSE), customer identification number (such as service account identification number), phone number on file with the load-serving entity, or any other information necessary to verify participant eligibility with the load-serving entity, as appropriate.
- Information on the load-reduction resources the participant will use during a DSGS Program event, including:
    - Types of available resources, including the applicable loading order category (for example, demand response, renewable or zero-emission resource, near-zero-emission resource, biomethane or natural gas resource, or diesel backup generator or other conventional resource, or any combination of the above).
    - Address and customer identification number where the participant will deploy each resource.
    - Expected minimum and maximum load reduction amount (in kilowatts [kW]) for each resource.
    - Whether the resource may require a 202(c) emergency order pursuant to the Federal Power Act to participate in the DSGS Program.

- If the resource is a backup generator, information on whether the backup generation is portable or stationary, rated horsepower, fuel type used, and federal emissions tier.
- Notice time and ramp time required to respond to a DSGS event.

d. ~~Enrolled~~ Participation Report for Incentive Option 2

- California ISO Resource ID(s) for all resources under the aggregator enrolled in DSGS
- Number of end-use customers and customer class, sector, or load type of customers for each Resource ID
- Estimated incremental capacity not shown on any supply plan or other resource adequacy commitment

e. ~~Enrolled~~ Participation Report for Incentive Option 3

- The applicable UDC service territory, partner company (if applicable), customer class, technology type (stationary, electric vehicle supply equipment, or stationary export-only), nominated duration (hours), and estimated ~~capacity (kW~~total full-duration discharge (MWh) for each aggregation participating in the DSGS Program. DSGS providers should submit no more than one entry for each unique aggregation~~combination of UDC, partner company, and nominated duration~~. ~~Estimated capacity is the average power discharge expected from the aggregation over a full-duration event relative to the prescriptive baseline and any energy reserved for backup by participants.~~
- Information on each participating site, including a unique identification number, partner company (if applicable), customer class, utility service account number (for example, service agreement ID) or service account address or both, UDC, number of batteries installed at each site, ~~nominal~~ nameplate (i.e., usable) battery system power rating (for nonvehicle behind-the-meter [BTM] storage) or nameplate discharge power rating ~~(~~for electric vehicle supply equipment~~,~~ (EVSE), ~~nominal~~ nameplate storage energy capacity (for stationary storage devices, in kWh), and nominated duration (hours).
- Indication that the DSGS provider or its partner has remote control (for example, via Application Programming Interface (API) ~~control~~access) ~~over~~ of each participant battery to dispatch the battery, is not ~~controlling~~ dispatching the battery for a conflicting program, and has no knowledge or awareness that each customer is enrolled or participating in a conflicting program~~, to the best of the provider's knowledge~~.
- If claiming a baseline of zero (see Chapter 5, Section E): The permission-to-operate date, a field indicating the customer has attested that the relevant resource is not and will not receive Self-Generation Incentive Program (SGIP) funding, and both the service account address and service account number.

f. Participation Report for Incentive Option 4

- The UDC service territory and device type for each aggregation participating in the DSGS Program. DSGS providers should submit no more than one entry for each combination of UDC and device type.
- Information on each participating device, including a unique identification number, device type, utility service account number (for example, service agreement ID) or service account address or both, UDC, and connected load estimate. The connected load estimate shall be entered as 2.5 kW for smart thermostats without direct load measurement or the estimated maximum instantaneous power draw of the device otherwise.
- Indication that the DSGS provider has remote control (for example, via API access) of each participant device to dispatch the device, is not dispatching the device for a conflicting program, and has no knowledge or awareness that each customer is enrolled or participating in a conflicting program.

2. Option 2 Dispatch Reports

Option 2 providers must submit to the CEC a ~~weekly~~monthly report summarizing the total expected energy (MWh) by Resource ID for each day and hour. Dispatch reports are due to the CEC 10 business days after the last day of the month in which dispatches occurred. If no eligible dispatches occured in the previous ~~week~~month, the report ~~may be skipped~~should indicate that no dispatches occured in the past month.

3. Option 3 Performance Reports

a. ~~Report Information and Due Date~~

Within ~~3~~10 business days after the end of each month during the program season (May-October), Option 3 providers must submit to the CEC (a) sub-meter data in the specified format for the prior month for all sites ~~active~~ participating in their aggregation that month and (b) electric utility meter data in 15 minute intervals for sites also enrolled in a supply-side demand response program and participating in DSGS with an export-only resource. ~~The CEC may also request a Performance Estimate Report, as described in Section D.2.b below, on an ad hoc basis.~~Monthly performance reports are required for claim submission and settlement.

b. ~~Performance Estimate Report for Option 3~~

~~If the CEC requests a Performance Estimate Report for any Option 3 event, the report must include the following information on each aggregation enrolled under Incentive Option 3:~~

- ~~Event date(s) and event hour(s)~~
- ~~The UDC service territory~~
- ~~Nominated duration (hours)~~
- ~~Total hourly discharge (kWh)~~

4. Option 4 Performance Reports

Within ~~5~~10 business days after a program ~~event~~ or test event ~~took place~~occurs, Option 4 providers must submit participating device load or run-time data to the CEC in the specified format ~~program event~~ for all devices active in their aggregation.

5. Reports to the California Air Resources Board on Backup Generation

Within 10 business days after the end of each month in which a DSGS Program event occurred and the backup generator was dispatched, DSGS providers or participants participating in Incentive Option 1 shall provide to the CEC and the California Air Resources Board (CARB) the following information regarding backup generation participants used during a DSGS Program event, if any:

- The address or GPS coordinates where such backup generation occurred
- Information on whether the backup generation is portable or stationary
- The engine size, age, rated horsepower, and federal emissions tier for each generator dispatched under the program
- The type and amount of fuel used by each generator dispatched under the program
- The hours of operation on each day with a program event of each generator dispatched under the program

The CEC will not approve requests for incentive payments for backup generation until CARB receives the report associated with that backup generation for each month in which the backup generation participated.

DSGS providers must determine with their participants who is responsible for submitting the reports. Participants enrolled directly with the CEC are responsible for submitting the reports.

CHAPTER 3:
Incentive Option 1: Emergency Dispatch

A. Participant Eligibility and Enrollment

Residential customers are not eligible to participate in Incentive Option 1. Eligible participants must enroll to participate under Incentive Option 1 by submitting to the DSGS provider, or the CEC if directly enrolling, all information listed in Chapter 2, Section D(1)(c). Additionally, the participant must verify in writing that:

- The participant meets the eligibility requirements of the DSGS Guidelines to the best of their knowledge.
- The participant will allow the CEC access to all documentation to verify compliance with the program.
- The information submitted is accurate and complete.
- The participant agrees to the terms and conditions of the program.

Participants may use behind-the-meter combustion or non-combustion resources. Combustion resources involve oxidizing fuel to produce energy. The fuel can be solid, liquid, or gas. Non-combustion resources eligible under Option 1 are those that can reduce electric load during emergency events without combustion.

Participants must also provide any other information the DSGS provider or CEC deems necessary.

B. Incentives

1. Energy Payment

Participants shall receive an energy payment at a rate of $2 per kWh of verified incremental load reduction provided during an Option 1 event (that is, dispatch period) as outlined in Chapter 3, Section D.

The default process for calculating the verified incremental load reduction achieved during an Option 1 event is as follows:

- Step 1: Calculate the energy baseline (EB) at the service account level. The EB will be calculated on an hourly basis using the average of the preceding similar days.2 A service account must have at least 10 similar days of interval meter data available to have a valid baseline.
- Step 2: Calculate the day-of adjustment value (DOAV). A DOAV shall not be less than 0.60 or greater than 1.40. The DOAV is a ratio of (a) the average load of the

2 The 10 non-excluded weekdays will be selected for weekday events; for weekend and holiday events, the 4 non-excluded weekend and holiday days will be selected.

first three hours of the four hours prior to the event to (b) the average load of the same hours from the days selected in accordance with Step 1 above. If either (a) or (b) are negative, the DOAV is 1.0.

- Step 3: Calculate the adjusted energy baseline (AEB). When the EB is greater than zero, a service account AEB for the event is calculated by multiplying the EB by the DOAV. If the EB is less than zero in an hour during the event, the AEB shall be equal to the EB (that is, DOAV treated as 1).
- Step 4: Calculate the incremental load reduction achieved during the event. The incremental load reduction for each hour of the event is the AEB minus the load measured during that hour. If this value is negative, the incremental load reduction in that hour shall be considered zero.

If the participant has a grid-connected device with export capability under the utility's interconnection agreement, the participant may choose to count exported energy, up to their export rating, in the incremental load reduction calculation. In that case, the baseline is modified to account for exported energy during non-event days and count exported energy in the incremental load reduction.

DSGS providers may propose an alternate method of calculating verified incremental load reduction in their application, subject to CEC approval, described in Chapter 2.C.1.

2. Standby Payment

Participants using combustion resources that provide a standby commitment identifying their available combustion capacity shall be eligible for a standby payment of $0.25 per kWh. Subsequent to a notice of a standby event described in Chapter 3, Section F, the participant shall receive the standby payment for each hour or portion thereof in which the combustion resource is not dispatched because:

i) The balancing authority did not issue an energy emergency alert (EEA) at the level at which the participant's resource may dispatch under Chapter 3, Section D

ii) The Governor did not issue an emergency proclamation authorizing dispatch of backup generators

iii) Or both i and ii

The standby payment will be based on the standby commitment. If the actual average load reduction during the dispatch period is less than the standby commitment, the standby payment shall be prorated to reflect the actual average load reduction demonstrated by the resource.

The standby commitment requirements are detailed in Chapter 3, Section F.

3. Reimbursement for Increased Customer Demand Charges

Participants shall also be reimbursed for incremental increases in customer demand charges that result from participation in the program and are incurred during the billing period in which a DSGS Program event occurred, if any.

~~4. Controllable Generation Incentive~~

~~Participants using backup generators powered by biomethane, natural gas, or diesel that are remotely controllable shall receive a one-time bonus incentive of $2.00/kW or $1.50/horsepower (HP), as defined on the specification sheet of the generator. To be considered remotely controllable, the backup generator must be:~~

- ~~Able to start and stop operation without physical intervention on site.~~
- ~~Connected to controls by the internet, a local area network, or similar on-site network.~~
- ~~Capable of ramping to full power output (kW or HP) within 15 minutes.~~
- ~~Able and programmed to log and record generator runtime, fuel consumption, or electric generation in hourly or subhourly increments.~~

~~Participants may receive this controllable generation incentive after the system is installed and operational.~~

~~Backup generators receiving the controllable generation incentive are subject to additional dispatch limitations described in Chapter 3.E.~~

~~The total amount of incentives paid under this section shall be limited to $2 million and may be paid from funds from the Distributed Electricity Backup Assets Account.~~

C. Program Events

To receive payment under Incentive Option 1, participants shall dispatch enrolled resources to reduce electric load during Option 1 events called in response to EEAs issued by a California balancing authority during the following times:

- May 1 through October 31 each year ("program year")
- Seven days a week

EEA levels include, in ascending order of potential for grid emergency or emergency severity:

- EEA Watch
- EEA 1
- EEA 2
- EEA 3

All participants will be notified of Option 1 events called in response to EEAs issued by either their host balancing authority or the California ISO. Additionally, participants with non-combustion resources will be eligible for Option 1 incentives when dispatching in response to EEAs issued by a neighboring California balancing authority if requested or notified by that balancing authority and authorized to respond by the participant's host POU and balancing authority. If two or more California balancing authorities issue an EEA during the same time frame, participants shall prioritize providing load reduction to the balancing authority area in which the participant is located.

D. Dispatch Loading Order

In alignment with the state's climate and air quality goals, to the maximum extent feasible, the DSGS provider, or participants, shall dispatch load reduction resources for Option 1 events in the following order:

1. Demand-response resources, including batteries
2. Renewable and zero-emission resources
3. Near-zero-emission resources
4. Biomethane and natural gas resources
5. Conventional diesel and gas resources

DSGS providers, or the CEC for direct participants, will dispatch participants with backup generators only if authorized under a state of emergency proclamation issued by the Governor. Participation in the program does not waive any air or operation permit requirements.

Participation in the program cannot extend the useful life of a resource in contravention of the state's climate and air quality goals.

E. Dispatch Period

The dispatch period for an Option 1 event shall be determined by the EEA level at which the participating resource may dispatch to reduce electric load and the time frames identified in the EEA notices issued by the applicable balancing authority. Option 1 events always start at the beginning of a complete hourly interval. If the start time identified in the EEA notice is not hour-aligned, the associated event start time is rounded to the nearest hour, with times ending in 30 minutes rounded to the next hour. If the end time identified in the EEA notice is not hour-aligned, the associated event end time is always rounded to the following hour.

Participants may dispatch non-combustion resources during Option 1 events called in response to an EEA or EEA Watch. Participants may dispatch combustion resources in response to an EEA 2 or higher if authorized to dispatch by an executive order issued by the Governor, unless authorized to dispatch at a lower EEA level in an executive order issued by the Governor. Participants that receive a controllable generation incentive described in Chapter 3.B.4 may not dispatch at an EEA level lower than EEA 2, regardless of any executive order. The CEC shall notify DSGS providers and direct participants participating with combustion resources of any change in the EEA level at which combustion resources may be dispatched.

F. Standby and Dispatch Notification Process

When a California balancing authority issues an EEA Watch or an EEA 1, DSGS providers, or the CEC for direct participants, shall notify all participants with non-combustion resources to dispatch during the dispatch period as described in Chapter 3, Section E, and notify all participants with combustion resources of a standby event and to be ready to potentially dispatch if a dispatch event is issued. DSGS providers, or the CEC for direct

participants, shall determine from the participants the amount of incremental load reduction that will be available from non-combustion resources and would be available from combustion resources during each hour of the EEA Watch or EEA 1 time frame (standby commitment). Participants are not required to provide a standby commitment. Participants that choose to provide a standby commitment must provide a commitment in response to each standby event. Standby commitments are specific to a single standby event and are not carried over to subsequent standby events.

DSGS providers and direct participants shall report to the CEC the amount of incremental load reduction committed to be available during the DSGS event time frame within one hour or as quickly as feasible after the balancing authority issues the EEA, but before the DSGS event hour to receive a standby payment for that hour. In the case of a sudden onset event, providers and direct participants shall report within one hour, recognizing that the event will have already started.

DSGS providers and direct participants shall provide to the CEC any updates to the standby commitments as soon as practicable.

DSGS providers, or the CEC for direct participants, shall notify participants to dispatch and reduce electric load during a dispatch period, as defined in Chapter 3, Section D.

CHAPTER 4:
Incentive Option 2: Market-Integrated Demand Response Incremental Capacity Pilot

A. Demand Response Provider Eligibility

A DSGS provider, or its authorized third party, is considered a demand response (DR) provider when administering Incentive Option 2. Third-party DR aggregators and POUs are eligible to serve as DR providers. DR providers must be operating within the California ISO balancing authority area and must have at least one proxy demand resource (PDR) registered to participate under the incremental market-integrated DR capacity pathway.

B. Participant Enrollment

Eligible participants must be enrolled in a PDR in the California ISO market and registered to an Option 2 provider. DR providers must collect and retain participant information, which may be reviewed by the CEC in an audit, as described in Chapter 7, Section D.

C. Incentives

Incremental DR capacity incentive payments will be made to DR providers based on demonstrated capacity in excess of resource adequacy (RA) capacity commitments, if applicable. For example, if a DR provider has a portfolio RA capacity commitment of 10 MW and demonstrates capacity of 12 MW, the incremental demonstrated capacity is 2 MW. DR providers shall allocate incentive payments between the DR provider and its participants pursuant to the terms and conditions agreed upon by the DR provider and participants. The incremental capacity incentive rates under Option 2 are summarized in Table 1.

Table 1: Incremental Capacity Prices by Month and Availability Requirement ($/MW)

Month	Every Day	Non-Holiday Weekdays
May	$9,000	$7,200
June	$9,300	$7,440
July	$16,800	$13,440
August	$18,000	$14,400
September	$19,200	$15,360
October	$10,500	$8,400
Season Total	**$82,800**	**$66,240**

Source: CEC staff

An additional 30 percent bonus shall be applied to the incremental capacity incentives for Program Years 2023, 2024, 2025, and 2026. Additional bonuses in future years may be provided at CEC discretion.

Demonstrated incremental capacity shall be calculated and incentive payments shall be disbursed following the season completion each program year. After August 31st of each program year, DR providers may request one additional interim calculation of demonstrated incremental capacity and incentive disbursement before the completion of the program year. If requested, the CEC shall calculate the season-to-date incremental capacity value of the aggregator and provide the aggregator the associated incentive payment for the completed months. This interim incentive payment shall be deducted from the total incentive payment made at the end of the season.

D. Program Events

Demonstrated capacity (defined in the following section) will be calculated based on resource availability and performance during a defined availability window. A PDR aggregation may participate on non-holiday weekdays only, or all days including weekends and holidays for a higher incentive level (Table 1). To receive incentives for incremental capacity demonstrated under Option 2, the PDR must be bid or self-scheduled for at least three consecutive hours between 4:00 p.m. and 10:00 p.m. For a PDR with a capacity obligation on a monthly RA showing, the RA availability and bidding rules take precedence over DSGS.[3]

Unlike the must-offer obligation under the RA program, DSGS does not require offering any minimum amount (MW). Instead, the DR provider may determine the appropriate amount to offer; this amount may factor into demonstrated capacity if dispatched. If the DR provider does not bid (or self-schedule) during these hours, a value of zero will be entered into the performance calculation described in the following section.

E. Measuring Performance

Under Option 2, demonstrated incremental capacity is calculated using the following method. The CEC shall allow DR providers to measure PDR capacity at the Resource ID or Sub-LAP level. The CEC may grant DR providers the ability to create aggregations of Resource IDs with similar characteristics and in the same Sub-LAP. The unit of analysis for these metrics is an "aggregation," which may consist of a single Resource ID for resource-level analysis or multiple Resource IDs for Sub-LAP or custom aggregations.

1. Calculate Aggregation-Level Input Values

DSGS capacity measurement relies on the data streams listed below, each of which must be aggregated to the hourly level. These data streams and the aggregation required for each include the following:

3 Resource adequacy resources generally have a 24x7 must-offer obligation, unless otherwise specified by the California ISO tariff.

- **Offer:** The offer value is the real-time bid quantity at a price no greater than $600/MWh plus self-schedules (MW) in the real-time market during each hour. The offer value for aggregation *a* (consisting of *n* Resource IDs *r,* where n≥1) in each interval (date d, hour *h*) is defined as:

$$Offer_{a,d,h} = \sum_{r=1}^{n} RTM\_BID\_QUANTITY_{r,d,h} + RTM\_SELFCHEDMW_{r,d,h}$$

where RTM_BID_QUANTITY refers to the bid quantity at a price of ≤$600/MWh. Offer values of zero will be excluded from analysis unless the sub-LAP DAM LMP ≥$600, such that resources that have no schedules when the price cap is reached receive an offer value of zero.

- **Demand response energy measurement (DREM):** DREM is the delivered energy value (MWh) determined through California ISO settlement processes. The DREM value for aggregation *a* (consisting of *n* Resource IDs *r,* where n≥1) on day *d* in hour *h* over the twelve 5-minute intervals *i* is defined as:

$$DREM_{a,d,h} = \sum_{r=1}^{n} \sum_{i=1}^{m} DREM_{r,d,h,i}$$

- **Total expected energy (TEE):** TEE is the total amount of energy (MWh) a Resource ID is expected to deliver in the California ISO based on its real-time market schedules. The TEE value for aggregation *a* (consisting of *n* Resource IDs *r,* where n≥1) on date *d* in hour *h* over the twelve 5-minute intervals *i* is defined as:

$$TEE_{a,d,h} = \sum_{r=1}^{n} \sum_{i=1}^{12} EXP\_ENRGY\_QUANTITY_{r,d,h,i}$$

- **Temperature:** Temperature is defined on a daily basis based on the number of participating customers. This temperature metric is the average of daily high (TMax) and low (TMin) averaged across all dispatched customers on a given day. The daily high and low temperatures for a given customer will be taken from the closest weather station to the ZIP code of the customer with available data, such as those identified in the California ISO "NOAA Station to Zip

Mapping" file.[4] The temperature ("Temp") value for aggregation *a* (which may consist of one or more Resource IDs within a single sub-LAP) on date *d* is defined as:

$$\text{Temp}_{a,d} = \frac{\sum_{c=1}^{n} \frac{1}{2}\left(\text{TMax}_{c,d} + \text{TMin}_{c,d}\right)}{n}$$

where *c* is the index for customers dispatched on date *d* and *n* is the number of participating customers.

Equivalently, this value can be determined from counts of customers by ZIP code *z*:

$$Temp_{a,d} = \frac{\sum_{z=1}^{m} \frac{n_{z,d}}{2}\left(TMax_{z,d} + TMin_{z,d}\right)}{\sum_{z=1}^{q} n_{z,d}}$$

where *m* is the number of ZIP codes and *n* is the number of dispatched customers in each ZIP code.

2. Individual Settled Load Impacts Are Calculated and Adjusted Relative to Bids

Hourly load impacts determined by California ISO settlement are adjusted relative to the amount offered, and dispatched according to the following definition of bid-normalized load impacts (BNLI) on date *d* and hour *h*:

$$BNLI_{a,d,h} = Max\left(Offer_{a,d,h}\left(\frac{Min(DREM_{a,d,h}, TEE_{a,d,h}}{TEE_{a,d,h}}\right), DREM_{a,d,h}\right)$$

where $Offer$, $DREM$, and TEE are the hourly resource or aggregational values as defined above. BNLI will only be calculated if Offer > 0 or if the sub-LAP LMP ≥$600, such that resources that have no schedules when the bid cap is reached receive a BNLI value of zero. If TEE < 0.2*Offer in an hour, the event shall also be omitted from the calculation of demonstrated capacity.

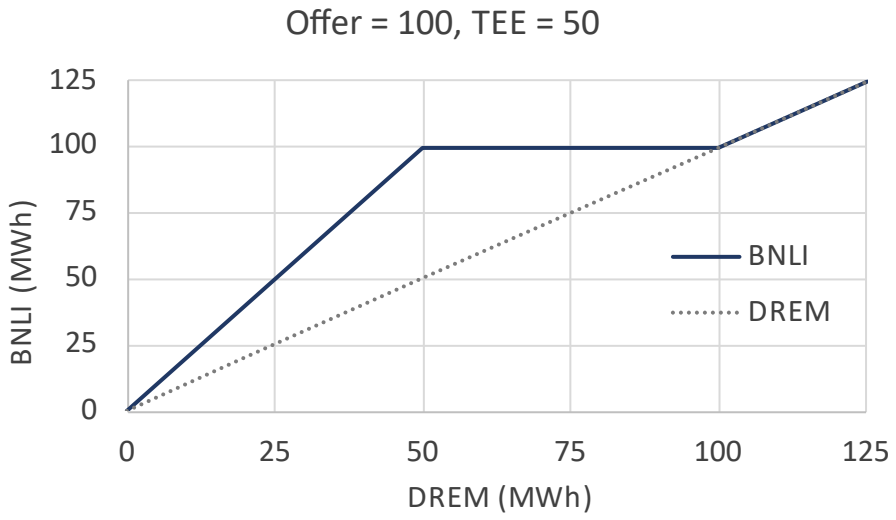
Intervals in which a DR resource does not bid in the day-ahead market as required by the RA program or DSGS will be assigned a bid-normalized load-impact value of zero. The hours the resource would have bid under an RA or DSGS obligation will be assumed to be the hours within the availability window with the highest consecutive day-ahead locational marginal price (LMPs).

Figure 1 illustrates bid-normalized load impacts as a function of actual DREM when the offer value is greater than TEE. When TEE is greater than or equal to offer, for

4 California Independent System Operator. December 17, 2019. "NOAA Station to Zip Matching." http://www.caiso.com/Documents/NOAA-Station-to-Zip-Mapping.xlsx

example because the resource received a dispatch on bid amounts above $600/MWh, BNLI will always be equal to DREM.

Figure 1: Example BNLI for Offer = 100 MWh and TEE = 50 MWh



Source: CEC staff analysis

3. Load Impact Temperature Models

DR providers may elect to apply a weather-sensitive or non-weather-sensitive demonstrated capacity calculation method for each aggregation in their portfolio. For weather-sensitive aggregations, a weighted least-squares linear regression models bid-normalized load impacts as a function of temperature. For non-weather-sensitive resources, capacity is defined as the mean LMP-weighted bid-normalized load impacts.

For weather-sensitive aggregations, the load impact regression model specification takes the following form:

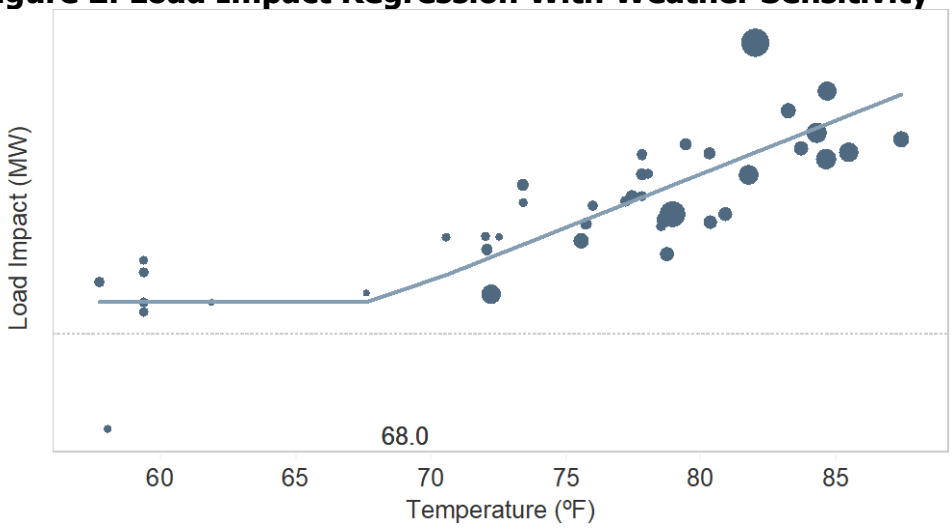
$$\text{BNLI} = a + b*\max(\text{Temp}, C) + e$$

where BNLI is the estimated bid-normalized load impact value (MWh) in each hour, *a* is the model intercept value, *b* is a term reflecting sensitivity to hot weather, Temp is the average of daily high and low temperature (ºF) for a representative sub-LAP weather station, *C* is a change point between regions under which the resource does and does not show weather sensitivity, and *e* is an error term. Change point *C* will be determined by testing values across the range of temperatures in the data in increments of 2ºF and selecting the change point with the highest corresponding R^2 value.

The regression is weighted by day-ahead LMP for the sub-load aggregation point (sub-LAP). Temperature is the average of daily high and low for a representative weather station for each sub-LAP.

Figure 2 shows the load impact regression for a sample resource with a changepoint at 68ºF, with LMP represented by point size.

Figure 2: Load Impact Regression With Weather Sensitivity



Source: CEC staff analysis

For non-weather-sensitive resources, the LMP-weighted mean bid-normalized load impact is calculated according to the following formula:

$$Capacity_a = \frac{sum(BNLI_{a,d,h} LMP_{a,d,h})}{sum(LMP_{a,d,h})}$$

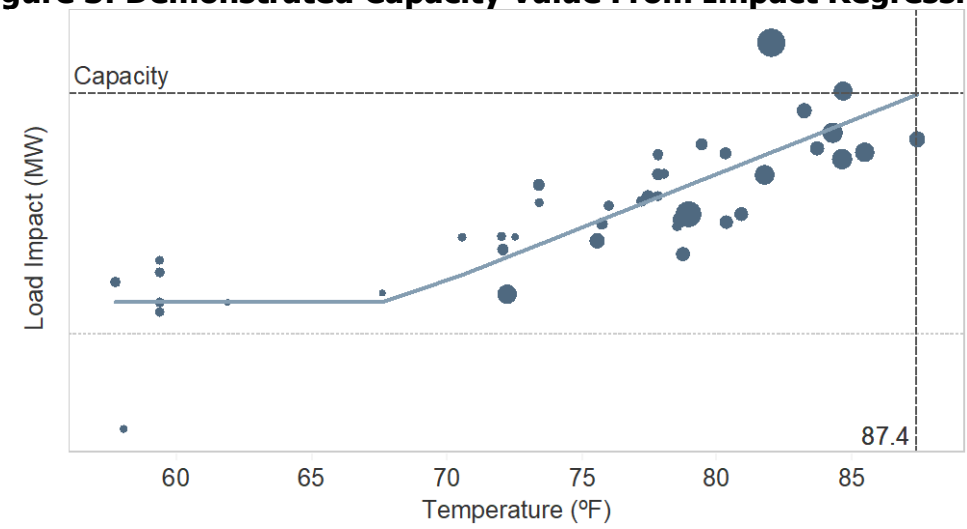
Where $BNLI_{a,d,h}$ is the bid-normalized load impact and $LMP_{a,d,h}$ is the sub-LAP day-ahead LMP for aggregation *a* on date *d* and hour *h.*

DR providers bear the responsibility to develop sufficient dispatches to calculate a demonstrated capacity value through the regression model or weighted average. Each DR aggregation must receive at least one dispatch resulting in a BNLI value per month from July through September and one BNLI value per month on average to be awarded a demonstrated capacity value for the season. In the case of a single dispatch for participation in a single month, the non-weather-sensitive capacity formula shall be applied. Regardless of participation duration, each aggregation must receive at least one dispatch resulting in three consecutive BNLI values. The three-hour minimum dispatch requirement is waived for participation in 2024.

4. Determine Demonstrated Capacity From Load-Impact Models

For weather-sensitive resources, the seasonal demonstrated capacity is defined as the value of the regression model at the maximum temperature (as previously defined) for which the resource had a dispatch event during the program year. Figure 3 illustrates the demonstrated capacity derived from the highest dispatch event temperature of 87.4ºF.

Figure 3: Demonstrated Capacity Value From Impact Regression



Source: CEC staff analysis

For non-weather-sensitive resources, demonstrated capacity is calculated directly in the previous step.

5. Calculate Incremental Demonstrated Capacity Relative to Resource Adequacy Obligation

Sum a DR provider's capacity obligations included in month-ahead RA showings across all California ISO LSEs by month. The month with the highest total RA capacity showing is considered the reference RA obligation. Sum all resource-level demonstrated capacity values from above and subtract the reference RA obligation. Any positive difference is the incremental demonstrated capacity.

Payment to each DR provider shall be made for this incremental capacity for all program months the provider participated in at the rates enumerated in Table 1.

F. Data Requirements

By participating in Option 2, DR providers authorize the California ISO to transmit resource-level data required to calculate demonstrated capacity to the CEC. These data streams include:

- **Real-time market bids and self-schedules** (in MWh) by Resource ID.
- **Total expected energy** (TEE, in MWh) by Resource ID.
- **Demand response energy measurement** (DREM, in MWh) by Resource ID.

CHAPTER 5:
Incentive Option 3: Market-Aware Storage Virtual Power Plant Pilot

A. Aggregator and Participant Eligibility

A DSGS provider, or its authorized third party, is considered a storage VPP aggregator when administering Incentive Option 3. Third-party battery providers, including third-party vehicle-to-load or grid (V2X) service providers, POUs, and CCAs, are eligible to serve as storage VPP aggregators. POUs and CCAs may serve only customers for which they serve as the LSE or retail provider.

A VPP shall consist of behind-the-meter (BTM) battery storage, which may include standalone batteries~~,~~ and batteries paired with solar systems~~,~~ or battery electric vehicles (EVs) with bidirectional charging capability~~, or a combination thereof~~. A VPP may include residential (bundled or unbundled), nonresidential (bundled or unbundled) customers, or both.

To be eligible to serve as a storage VPP aggregator of Incentive Option 3, the storage VPP aggregator must:

1. Receive authorization from participants allowing for the use of their device for DSGS Program participation.
2. Send dispatch signals to or directly control individual batteries participating in a market-aware VPP.
3. Collect and provide hourly or subhourly charge/discharge interval data from a battery inverter or submeter to the CEC.
4. Comply with the participants' utility interconnection agreements (for example, a Rule 21 tariff). Dispatch in violation of an interconnection agreement is not eligible for incentive payments.
5. Aggregate either: (a) a total minimum ~~nominal~~ nameplate power rating of ~~500~~400 kW across all utility service territories and resource durations, (b) at least one aggregation with a total minimum nameplate power rating of 200 kW, or (c) at least three aggregations with a total minimum nameplate power rating of 100 kW each. For stationary storage assets, the total ~~nominal~~nameplate power rating is determined by summing the ~~nominal~~nameplate continuous power rating (kW) from the specification sheets of the individual storage devices comprising the aggregation. For aggregations of EVs, the total ~~nominal~~nameplate power rating is determined by summing the discharge power rating (kW) from the specification sheets of the EVSE used by individual vehicle operators.

At a minimum, each customer site participating in a market-aware storage VPP must:

1. Have an operational stationary battery system or an EV with bidirectional EVSE capable of discharging at least 1 kW for at least two hours during a program event.
2. Provide no more than ~~1~~2,000 kW discharge during any hour of a program event.[5]
3. Have permission to operate from the host utility (for example, under a Rule 21 tariff) and operate in a manner compliant with existing rules and tariffs applicable to the site. UL 1741-SB listing of bidirectional chargers is not required for participation in a DSGS VPP.
4. Not be participating in a California ISO proxy demand resource (PDR) or reliability demand response resource (RDRR) unless either:
    a. The participant's customer energy baseline reflects total gross consumption (that is, consumption independent of any energy produced or consumed by behind-the-meter battery storage) consistent with California ISO tariff Section 4.13.4,[6] or
    b. The participant is enrolled ~~as~~with an export-only ~~customer~~DSGS resource, as described in Section E.

If a participant is identified as participating in a conflicting program, the participant's DSGS provider will be notified, and the participant shall be suspended from participation indefinitely until the conflict is resolved.

A DSGS provider serving as a storage VPP aggregator for more than one partner company may consider each partner company's battery aggregation to be separate and distinct VPPs that will be measured and compensated independently. In this case, the storage VPP aggregator must submit separate entries for each partner's aggregation and identify the partner for each participating site in the enrolled participation report. Each partner must be able to meet all other aggregator requirements, such as the minimum aggregate ~~nominal~~nameplate power~~ rating of 500 kw~~.

At a minimum, to participate under Option 3 as a storage VPP, each aggregation must:

- Consist of customer sites located within the same UDC service territory and, if applicable, associated with the same partner company.
- Consist of a single type of storage asset~~s~~ (stationary or EV battery, inverter-metered or export-only~~, and residential or non-residential~~)
- Consist of a single type of customer class (residential or non-residential)
- Consist of storage assets nominated for the same duration (number of hours, see following section for details).

5 A customer site may participate with a stationary battery system capable of discharging greater than or equal to ~~1~~2,000 kW but any discharge greater than ~~1~~2,000 kW during a given event hour will not be offered incentives.

6 California Independent System Operator Corporation. February 11, 2023. *Fifth Replacement FERC Electric Tariff,* http://www.caiso.com/Documents/Section4-Roles-and-Responsibilities-asof-Feb11-2023.pdf.

B. Participant Enrollment

Storage VPP aggregators must collect and maintain the following information to enroll eligible participants under Incentive Option 3:

- Legal name of the participant or name on the utility bill at the participating site
- If contact name is different from above: primary contact's name and, if available, title
- Email address and phone number of participant or primary contact
- Service account address, service account or agreement identification number (SAID), or both
- Service account UDC
- Indication of whether the service account is non-residential or residential
- Indication of whether the resource is a stationary or EV battery
- Indication of whether the service account is enrolled in PDR and participating as an export-only resource
- Authorization from the participant allowing for the use of their device charge and discharge data for purposes of program participation
- Acknowledgement and agreement from the participant that:
  - The participant meets the eligibility requirements of the DSGS Guidelines and is not enrolled or participating in a conflicting program to the best of their knowledge.
  - The participant will allow the CEC access to all documentation to verify compliance with the program and program performance.
  - The information submitted is accurate and complete.
  - The participant agrees to the terms and conditions of the program.
- <u>If claiming a baseline of zero (Chapter 5., Section E):</u>
  - <u>Permission to operate date</u>
  - <u>Indication the participant has not received and will not apply for SGIP incentives</u>
  - <u>Both service account address and SAID</u>
- Any other information the storage VPP aggregator deems necessary

Participant enrollment information may be reviewed by the CEC in an audit as described in Chapter 8, Section D.

C. Incentives

Incentive payments shall be made to storage VPP aggregators based on the demonstrated capacity of a VPP during market-aware VPP events. Storage VPP aggregators shall allocate incentive payments between the storage VPP aggregator and

its participants pursuant to the terms and conditions agreed to between the storage VPP aggregator and participant.

Different levels of incentives for demonstrated capacity (kW) are available for VPPs of varying durations (hours). Storage VPP aggregators shall be eligible for a payment for demonstrated capacity of a VPP at the rates defined in Table 2 based on the capacity (kW) and duration (hours) demonstrated by the storage VPP aggregator in each month.

Table 2: Storage VPP Capacity Prices ($/kW-month)

Month	4-Hour	3-Hour	2-Hour
May	$9.00	$8.10	$6.75
June	$9.30	$8.37	$6.98
July	$16.80	$15.12	$12.60
August	$18.00	$16.20	$13.50
September	$19.20	$17.28	$14.40
October	$10.50	$9.45	$7.88
Annual Total ($/kW)	**$82.80**	**$74.52**	**$62.10**

Source: CEC staff analysis

An additional 30 percent bonus shall be applied to all capacity incentives for Program Years 2025 and 2026. Additional bonuses in future years may be provided at CEC discretion. ~~An additional 10 percent bonus shall be applied to capacity incentives for months with at least one hour in which the "Emergency Trigger" is activated but the "Absolute Price Trigger" is not activated (see Section D for additional information).~~

D. Program Events

Option 3 program events may occur only during the following times:

- **Daily availability:** Starting no earlier than 4:00 p.m. and ending no later than 9:00 p.m.
- **Weekly availability:** Seven days a week.
- **Maximum events:** Thirty-five events per program year (May–October), including up to one test event per month in the absence of a full-duration event. Participation in more than 35 events is optional but may be used to increase demonstrated capacity. If the events called in a month bring the total for a given resource to more than 35 events for that program year, the events in the month with the highest performance shall be included in the 35-event maximum and used to determine demonstrated capacity.
- **Minimum events:** One event per month is required for all participating aggregations. Storage VPP aggregations that have reached the maximum events per

season must still participate in at least one full-resource duration event. In the absence of a full-duration DSGS Program event, a test event must be called by the storage VPP aggregator ~~for the months of May, June, and July, and by the CEC for the months of August, September, and October.~~. This requirement supersedes the maximum event threshold.

- **Exceptions:** An event may be discarded from the performance calculation at the discretion of the storage VPP aggregator if customers representing 10 percent or more of the ~~nominal~~nameplate power rating of the aggregation lose power on an event day before or during the event.

~~A storage VPP *event* is defined by any hour that meets both of two criteria within the program hours. For all resources, *price* is defined as the California ISO day-ahead locational marginal price (LMP) for the default load aggregation point (DLAP) of the VPP's host UDC, or the trading hub of the host UDC if a DLAP is not available.[7] These criteria are:~~

- ~~**Absolute price trigger:** The hourly LMP must be greater than or equal to $200/MWh. If no hours within the program window meet either of these thresholds, no price-based event shall be called.~~
  - ~~**Nonconsecutive prices ≥$200/MWh:** Option 3 VPP events will only be called for consecutive hours. If multiple hours within the program window meet the absolute price trigger but are not consecutive, the hour or hours in between shall also be considered to meet this criterion.~~
  - ~~**Emergency trigger:** If an EEA Watch or above is called by the host BA, the emergency trigger shall take effect at the later of 4:00 p.m. and the first full hour beginning at least 15 minutes from the announcement of the EEA Watch or higher, and lasting until 9:00 p.m. Months in which at least one event hour was initiated by the emergency trigger and not the absolute price trigger shall receive the 10 percent bonus incentive for that month.~~
- ~~**Relative price trigger:** The hours with the highest mean consecutive LMP over the duration of the 2-, 3-, or 4-hour capacity commitment. If the number of hours where the day-ahead LMP ≥$200/MWh exceeds the nominated capacity duration, only those consecutive hours with the highest mean LMP shall be considered event hours.~~
  - ~~**Equal values:** If the highest mean consecutive hourly price applies to more than one set of hours (that is, if there is a tie), the event will be the first (that is, earliest) set of hours meeting these conditions.~~

~~An event may last from one hour to the maximum resource duration of a VPP. For example, the performance of a 3-hour VPP resource will be measured over the three highest-priced consecutive hours that meet or exceed $200/MWh during the 4:00 p.m.–9:00 p.m. program window. If more than three hours meet or exceed $200/MWh during~~

~~7 The UDCs and corresponding aggregate pricing node IDs are Pacific Gas and Electric ("DLAP_PGAE-APND"), Southern California Edison ("DLAP_SCE-APND"), San Diego Gas & Electric ("DLAP_SDGE-APND"), and the POUs of Anaheim, Azusa, Banning, Pasadena, Riverside, and Vernon (SP15, "TH_SP15_GEN-APND").~~

~~this window on a given day, only the three highest-priced consecutive hours will count toward performance. If less than three hours meet or exceed $200/MWh, only those hours will count toward performance.~~

- **Day-Ahead Events**: A day-ahead storage VPP event is triggered within the hours that meet either of two criteria within program hours. These criteria are:

  A. **Absolute Price Trigger:** The hourly LMP must be greater than or equal to $200/MWh. Option 3 VPP events will only be called for consecutive hours. If multiple hours within the program window meet the absolute price trigger but are not consecutive, the hour or hours in between shall also be considered to meet this criterion.

  B. **Day-Ahead Emergency Trigger:** If an EEA Watch or above is called for the following day by the host BA, the emergency trigger shall take effect beginning at 4:00 p.m. and lasting until 9:00 p.m.

  For all resources, *price* is defined as the California ISO day-ahead locational marginal price (LMP) for the default load aggregation point (DLAP) of the VPP's host UDC, or the trading hub of the host UDC if a DLAP is not available.[8] If no hours within the program window meet either criterion, no day-ahead event shall be called.

  An event may last from one hour to the maximum resource duration of a VPP. If the number of hours where the day-ahead LMP ≥$200/MWh exceeds the nominated capacity duration, only those consecutive hours with the highest mean LMP shall be considered event hours. If the highest mean consecutive hourly price applies to more than one set of hours (that is, if there is a tie), the event will be the first (that is, earliest) set of hours meeting these conditions.

  For example, the performance of a 3-hour VPP resource will be measured over the three highest-priced consecutive hours that meet or exceed $200/MWh during the 4:00 p.m.–9:00 p.m. program window. If more than three hours meet or exceed $200/MWh during this window on a given day, only the three highest-priced consecutive hours will count toward performance. If less than three hours meet or exceed $200/MWh, only those hours will count toward performance.

- **Test Events:** In the absence of a full~~-resource-~~duration day-ahead storage VPP event during a participation month, a storage VPP aggregator must define one ~~or more test events~~test event per unique combination of UDC service territory and nominated duration that ~~last~~lasts as long as the resource duration associated with each ~~aggregation~~unique combination to substantiate ~~a~~ its demonstrated capacity value. The test hours must ~~be consistent with the relative price trigger (that is, must~~ occur during hours with the highest consecutive LMPs within the program hours~~)~~ and last for the duration of the capacity commitment. Test events must be registered with

8 The UDCs and corresponding aggregate pricing node IDs are Pacific Gas and Electric ("DLAP_PGAE-APND"), Southern California Edison ("DLAP_SCE-APND"), San Diego Gas & Electric ("DLAP_SDGE-APND"), and the POUs of Anaheim, Azusa, Banning, Pasadena, Riverside, and Vernon (SP15, "TH_SP15_GEN-APND").

the CEC no later than 3:00 p.m. on the day preceding the planned test event. The storage VPP aggregator must provide the CEC with the hours of the planned test event, and the UDC service territory, and nominated duration of the storage VPP(s) that will participate in the test event.

Test events may coincide with a shorter duration price-triggered storage VPP event. If all storage VPP events called during a month are shorter than the resource duration of a VPP, a provider may extend an event with test hours to reach the VPP's full resource duration. In this case, both price-triggered storage VPP event hours and test hours will be used in the capacity calculation.

A storage VPP aggregator may ~~apply the highest performance of multiple test events to the demonstrated capacity. Only~~conduct only one test event per month for each unique combination of UDC and resource duration. Test events may count toward the maximum number of events.

- **Day-of Events**

  If an EEA Watch or above is issued for the same day by the host BA, the emergency trigger shall take effect at the later of the notice issued time rounded to the nearest hour, the notice start time rounded to the nearest hour, and 4:00 p.m., and last no later than 9:00 p.m. Day-of event triggers shall not change Day-ahead Event hours. If a Day-of Event is called following a partial-duration Day-ahead Event, the Day-of Event hours must be consecutive with the Day-ahead Event hours. Similar to Day-ahead Events, only the consecutive hours with the highest mean LMP shall be considered event hours, subject to the above constraint.

  Day-of Event hours shall not be included in the demonstrated capacity calculation described in Section E.4 below and the VPPs dispatching during the event will be compensated at a rate of $1 per kWh of net discharge. Event hours already triggered day-ahead are not considered Day-Of Event hours.

E. Measuring Performance

1. Hourly Discharge

Except as provided below, ~~H~~hourly battery ~~performance~~discharge shall be ~~determined by battery discharge~~ measured at the submeter, inverter, or EVSE, regardless of whether the energy serves BTM load or is exported to the grid.~~,~~

~~unless~~ If the participant is also enrolled in a supply-side DR program~~. If the participant is enrolled in supply-side DR~~ and participating in DSGS with an export-only resource, then only the discharge exported to the distribution grid shall be attributable to the DSGS program using the following formula:

$$\sout{Discharge = |\min(load_h, 0)|}$$

$$Discharge_{r,h} = |\min(load_{r,h}, 0)|$$

Where ~~*load*$_h$~~*load*$_{r,h}$ is the hourly load (kWh) from the ~~customer's~~ electric utility meter~~.~~ at the customer site with the resource *r* in hour *h*. That is, for DR-enrolled customers, discharge is the absolute value of any negative load during a DSGS event hour.

2. Prescriptive Baseline

For stationary battery resources ~~using submeter~~receiving self-generation incentive program (SGIP) funding or ~~inverter discharge data~~with a host utility permission-to-operate date before July 1, 2023, an hourly prescriptive baseline ~~of~~shall be applied to battery discharge:

A. Residential: 0.074*NCapacity*$_{kWh}$

B. Nonresidential: 0.028*NCapacity*$_{kWh}$

Where *NCapacity*$_{kWh}$ is the ~~nominal~~nameplate energy storage capacity (kWh) of the battery as defined on the specification sheet for the battery. The resulting baseline value is in kWh per hour.

For ~~EVs and export only~~all other batteries ~~at sites enrolled in DR~~, including EVs and export-only, the baseline is defined as zero kWh per hour.

Beginning in the 2026 program season, baselines shall be applied to all resources participating in DSGS Option 3. For the 2026 season and every two years thereafter, the CEC may update the baselines, as appropriate, to accurately reflect the incrementality of DSGS storage VPP's contribution relative to load forecasts based on CEC's analysis of the VPP performance and other relevant considerations.

3. Net Discharge

Net discharge for an aggregation is equal to discharge minus the baseline in each event hour, which may be zero for resources meeting the criteria listed above. Net discharge (kWh) in hour *h* is calculated as the difference between the battery discharge and baseline values across all resources *r*:

$$NetDischarge_h = \text{sum}(Discharge_{r,h} - Baseline_{r,h})$$

Any charging of the battery system is considered the negative of discharge in the calculation. The formula for net discharge is the same for both day-ahead and day-of events.

4. Demonstrated Capacity

Demonstrated capacity for an aggregation in a participation month *m* (*DCapacity*$_m$) shall be defined as the weighted average ~~aggregated~~ net discharge (kWh) per hour, ~~defined as discharge minus the baseline,~~ where the weights are given by the relevant LMP across all day-ahead storage VPP event hours (including test hours, where appropriate), as summarized below:

$$DCapacity_m = \text{sum}(NetDischarge_h * LMP_h)/\text{sum}(LMP_h)$$

Where LMP_h is the day-ahead LMP in hour *h*.

~~Where $Discharge_{r,h}$ is the metered battery discharge (kWh) of an individual resource *r* in hour *h*, $Baseline_{r,h}$ is the baseline for that resource and hour, *q* is the number of resources in the aggregation, *p* is the number of storage VPP event or test hours, and LMP_h is the day-ahead LMP in hour *h*. Any charging of the battery system is considered the negative of discharge in the calculation.~~

Any VPP aggregation that shows a demonstrated capacity at or below zero in a month will not be eligible for compensation for that month.

CHAPTER 6:
Incentive Option 4: Emergency Load Flexibility Virtual Power Plant Pilot

A. Aggregator and Participant Eligibility

A DSGS provider, or its authorized third party, is considered a load flexibility virtual power plant (VPP) aggregator when administering Incentive Option 4. Third-party load flexibility providers, POUs, and CCAs are eligible to serve as load flexibility VPP aggregators. POUs and CCAs may serve only customers for which they serve as the LSE or retail provider.

A load flexibility VPP shall consist of dispatchable:

- smart thermostat-controlled HVAC or heat pump heating/cooling units,
- heat pump water heaters,
- ~~and~~ electric resistance water heaters~~.~~,
- electric vehicle supply equipment (EVSE),
- stationary BTM batteries, or
- residential smart electrical panels.

A load flexibility VPP may include dispatchable devices located at residential (bundled or unbundled), nonresidential (bundled or unbundled) customer~~s~~ sites, or both.

To be eligible to serve as a load flexibility VPP aggregator of Incentive Option 4, the load flexibility VPP aggregator must:

1. Receive authorization from participants allowing for the use of their device for DSGS Program participation.
2. Send dispatch signals to or directly control individual devices participating in the load flexibility VPP.
3. Collect and provide ~~hourly~~15-minute or ~~subhourly~~5-minute load data from a smart thermostat-controlled HVAC system, or other eligible device~~water heater~~, to the CEC. If HVAC load data is unavailable, then the HVAC runtime data from a smart thermostat can be provided as an alternative.
4. Aggregate at a minimum ~~of 500~~:
   - 400 devices across all ~~utility service territories.~~ aggregations, or
   - ~~Provide a pathway for device owners to enroll in supply-side (market integrated) DR by including an optional step to complete the data sharing agreement required for DR registration in the enrollment process and in the DSGS information or settings page. If the load flexibility VPP aggregator is not also a supply-side DR provider, the aggregator must provide a link to one or more partner DR providers~~

~~that are enabled to dispatch the aggregator's devices in a supply-side DR aggregation.~~200 devices in at least one single aggregation, or

- 100 devices in at least 3 aggregations

At a minimum, each participating site in a load flexibility VPP must:

- Have an operational HVAC system ~~or,~~ electric water heater, EVSE, stationary battery, or smart panel capable of reducing net load in response to a dispatch signal by the VPP aggregator by changing device operational mode, temperature setpoint, or other method. Device operational changes through behavioral actions are not eligible.
- Not be participating in a California ISO PDR or RDRR~~.~~, or registered in the California ISO DRRS.

If a participant is identified as participating in a conflicting program, the participant's DSGS provider will be notified, and the participant shall be suspended from participation indefinitely until the conflict is resolved.

Each load flexibility aggregation ~~VPP~~ must consist of a single ~~resource~~ device technology type and customer sites located within the same UDC service territory.

B. Participant Enrollment

Load flexibility VPP aggregators must collect and maintain the following information to enroll eligible participants under Incentive Option 4:

- Name of the participant
- Address at which the device is installed
- UDC for the above address
- Indication of whether the device is a smart thermostat-controlled air conditioning unit or heat pump, electric resistance water heater, ~~or~~ heat pump water heater, EVSE, stationary battery, or smart panel
- Authorization from the participant allowing for the use of their load or runtime data for purposes of program participation
- Acknowledgement and agreement from the participant that:
  - The participant meets the eligibility requirements of the DSGS Guidelines and is not enrolled or participating in a conflicting program to the best of their knowledge.
  - The participant will allow the CEC access to all documentation to verify compliance with the program and program performance.
  - The information submitted is accurate and complete.
  - The participant agrees to the terms and conditions of the program.
- Any other information the load flexibility VPP aggregator deems necessary

Participant enrollment information may be reviewed by the CEC in an audit as in Chapter 8, Section D.

C. Incentives

Load flexibility capacity incentive payments will be made to load flexibility VPP aggregators based on the ~~nominated and demonstrated capacity~~performance of each aggregation ~~by month. At least five business days ahead of the first day of each participation month, a load flexibility VPP aggregator shall nominate a~~relative to its committed capacity ~~quantity (kW) for each VPP. The CEC shall set aside funds for each load flexibility VPP aggregator in an amount equal to 110 percent of the nominated capacity multiplied by the capacity price for each participation month.~~. The ~~DSGS~~ incentive rates for demonstrated ~~load flexibility~~ capacity achieved by load flexibility VPPs ~~prices offered~~ are summarized in Table ~~1~~3.

Table ~~1~~3: Load Flexibility Demonstrated Capacity ~~Prices~~ Incentive Rates by Month

Month	$/kW-month
May	$~~4.50~~5.86
June	$~~4.65~~7.10
July	$~~8.40~~9.79
August	$~~9.00~~13.42
September	$~~9.60~~15.41
October	$~~5.25~~9.00
Season Total	**~~$41.40 / kW~~$60.58 / kW-yr**

Source: CEC staff

Load flexibility VPP aggregators shall allocate incentive payments between the aggregator and its participants pursuant to the terms and conditions agreed to between the aggregator and participant.

The ~~monthly~~final incentive payment shall be adjusted relative to ~~demonstrated~~the total incentive associated with the minimum capacity ~~performance~~nomination based on VPP performance during program events (see Section E.3). ~~according to the schedule summarized in Table 2.~~

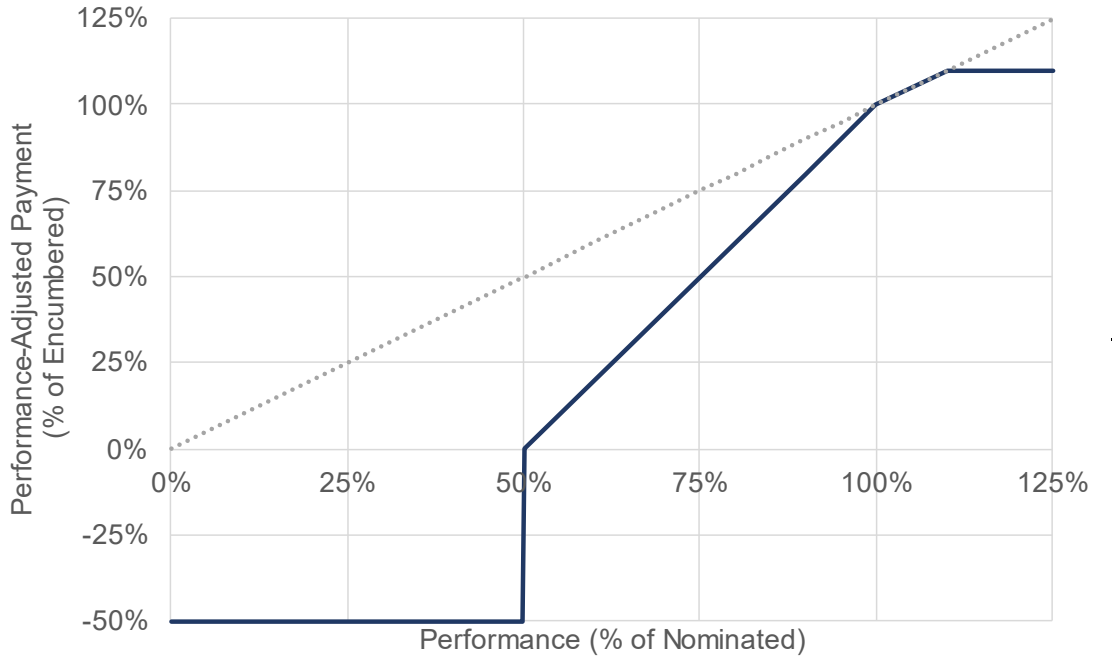
~~**Table 2: Performance-Adjusted Payment Schedule**~~

~~**Performance (P, % of Nominated Capacity)**~~	~~**Payment (% of Payment for Nominal Capacity)**~~
~~P > 110%~~	~~110%~~
~~100% ≤ P < 110%~~	~~P~~
~~50% ≤ P < 100%~~	~~100% – 2(100% – P)~~
~~P < 50%~~	~~50% * P~~

~~The performance-adjusted payment schedule is illustrated in Figure 4 and is subject to the availability of funds at time of nomination. Overperformance shall be compensated up to 10 percent above nominated capacity. Compensation for performance below 100~~

~~percent of nominated capacity will be reduced by two times the percentage shortfall below 100 percent, until the performance-adjusted payment reaches zero as performance declines to 50 percent of nominated capacity. If demonstrated capacity falls below 50 percent of nominated capacity, a penalty of 50 percent of the nominated capacity value shall be assessed on the DSGS provider. In the absence of an event in a month for an aggregation, performance of 100 percent of nominated shall be assumed. Any funds remaining in the load flexibility aggregator's set aside after calculating the incentive payment for each month will be released from the set aside.~~

~~Figure 4: Performance-Adjusted Payment Illustration~~



D. Capacity Nomination

Monthly capacity nominations are composed of two parts: (1) per-device average load reduction commitment and (2) device enrollment. Per device load reduction commitments are submitted for each program month, and device enrollments are submitted and updated monthly.

At least 10 business days before the start of the program season (May 1) or second half of the program season (August 1), each load flexibility VPP aggregator shall submit per-device average load reduction nomination for each month. For weather-sensitive resource aggregations, this nomination estimate shall reflect the per device average load reduction capability at the planning temperature for the UDC service territory, as defined in Section E.1 (Weather-Sensitive Resources).

At least five business days ahead of the first day of each participation month, a load flexibility VPP aggregator shall submit the number of devices enrolled for each VPP aggregation. The total capacity nomination for that month is the product of the nominated per-device average load reduction and monthly enrollment. The nominated

capacity incentive is the product of the total capacity nomination and the incentive amount for that month. The CEC shall set aside funds for each load flexibility VPP aggregator in an amount equal to 120 percent of the nominated capacity incentive.

E. Program Events

Option 4 load flexibility VPP events may occur only during the following times:

- **Daily availability:** Starting no earlier than 4:00 p.m. and ending no later than 10:00 p.m.
- **Weekly availability:** Seven days a week.
- **Minimum response time:** 20 minutes.
- **Maximum events:** Option 4 events are capped at cumulative 60 hours per program season (May–October). Participation in events beyond 60 hours is optional but may be used to increase demonstrated capacity. If the events called in a month ~~bring~~brings the total for a given resource to more than 60 hours for that program year, the events ~~in the month~~ with the highest performance shall be included in the 60-hour maximum and used to determine demonstrated capacity.

  Option 4 events are capped at 3 events in any 7-day period. If an event is triggered in excess of this limit, providers shall be eligible for energy payments for that event at the rate of $1/kWh during core hours and $0.50/kWh during shoulder hours (see "Event Trigger" below).
- **Minimum events:** Two events per program season, with one event in the months of May through July and one event in the months of August through October, are required for participating load flexibility VPPs. ~~In the absence of a load flexibility VPP event, as defined below, in each of these 3-month periods, the VPP must respond to a test event called by the CEC to meet the minimum event requirement.~~
- ~~A load flexibility VPP event is defined by any hour that meets both of two criteria within the program hours, or the hours specified for a test event called by the CEC. These market-related criteria are:~~
  - ~~**EEA trigger:** If the host BA initiates an EEA or EEA Watch, the EEA triggered event shall take effect at the later of 4:00 p.m. and the first full hour beginning at least 15 minutes from the announcement of the EEA or Watch, and last until 10:00 p.m. If no EEA or Watch is called by 8:45 p.m., no event shall be called.~~
  - ~~**Relative price trigger:** For all resources, *price* is defined as the California ISO day-ahead locational marginal price (LMP) for the default load aggregation point (DLAP) of the host UDC, or the trading hub of the host UDC if a DLAP is not available.[9] The relative price trigger shall take effect during hours with the highest consecutive 2-hour mean LMP.~~

~~9 The UDCs and corresponding aggregate pricing node IDs are Pacific Gas and Electric ("DLAP_PGAE-APND"), Southern California Edison ("DLAP_SCE-APND"), San Diego Gas & Electric ("DLAP_SDGE-APND"), and the POUs of Anaheim, Azusa, Banning, Pasadena, Riverside, and Vernon (SP15, "TH_SP15_GEN-APND").~~

- ~~**Shoulder Hours:** The hours immediately preceding and following the two hours identified by the relative price trigger are considered *shoulder hours.* These hours shall be given half the weight of an hour meeting the relative price trigger for a given price.~~
- ~~**Equal values:** If the highest mean consecutive hourly price applies to more than one set of hours (that is, if there is a tie), the event will be the first (that is, earliest) set of hours meeting these conditions.~~

~~The test hours shall be consistent with the relative price trigger (that is, must include the two highest consecutive LMPs and adjacent hours within the program hours).~~

- **Event trigger:** A load flexibility VPP event shall occur on each day for which the host BA issues an EEA or EEA Watch ("EEA Watch+" or "emergency trigger"), subject to the maximum event limit (above).
- **Test events:** In the absence of a load flexibility VPP EEA Watch+ event in each of the 3-month periods defined above, the VPP must respond to at a CEC initiated test event per period to meet the minimum event requirement. The test hours shall be consistent with the event hour selection criteria defined below. CEC shall make reasonable efforts to align test events with high-need days in coordination with the California ISO and to avoid test events if an emergency-triggered event is likely. However, it is possible that an emergency-triggered event may occur later in a month in which a CEC-initiated test event has already occurred. In this case, the VPP's performance in both events will be counted in determining the overall VPP's performance in that month.
- **Event hour selection:** Load flexibility VPP events shall target the two consecutive hours remaining in the daily availability window with the highest mean California ISO energy price, known as "core" hours or intervals. The hours immediately preceding and following the event hours and subject to minimum response time are considered "shoulder" hours or intervals. Both core hours and shoulder hours are subject to the daily availability window and minimum response time (above).

  For all resources, energy price refers to the California ISO energy market LMP for the default load aggregation point (DLAP) of the host UDC, or the trading hub of the host UDC if a DLAP is not available.[10] If the highest mean consecutive hourly price applies to more than one set of hours (that is, if there is a tie), the core hours shall begin with the earliest set of hours meeting these conditions.

  - **Advanced-Notice Events:** An Advanced-Notice Event is triggered by an EEA Watch+ notice issued at least 1 hour and 20 minutes ahead of the highest-price hours. In Advanced-Notice Events, both core and shoulder intervals are hour-aligned. The Advanced-Notice Event core hours shall occur during the two highest consecutive average LMP hours. The hours immediately preceding and following these two hours are considered shoulder hours.

10 The UDCs and corresponding aggregate pricing node IDs are Pacific Gas and Electric ("DLAP_PGAE-APND"), Southern California Edison ("DLAP_SCE-APND"), San Diego Gas & Electric ("DLAP_SDGE-APND"), and the POUs of Anaheim, Azusa, Banning, Pasadena, Riverside, and Vernon (SP15, "TH_SP15_GEN-APND").

- **Short-Notice Events:** A Short-Notice Event is triggered by an EEA Watch+ notice issued more than 20 minutes but less than 1 hour and 20 minutes ahead of the highest-price hours. Short-Notice Event core hours shall be hour-aligned and occur during the two highest consecutive average LMP hours. The complete 15-minute intervals preceding the highest-price hours and at least 20 minutes from the EEA Watch+ announcement and up to four 15-minute intervals immediately following the event and ending before 10:00p.m. are considered shoulder intervals.
- **Real-Time Events:** A Real-Time Event is triggered by an EEA Watch+ notice issued less than 20 minutes before the highest LMP hours, including notices issued during or after the highest LMP hours. Only during Real-Time Events core intervals may not be hour-aligned. Real-Time Event core intervals shall take effect beginning the first 15-minute interval at least 20 minutes from the announcement of the EEA Watch+. The event shall last for two hours or until 10:00 p.m., whichever is earlier. If no EEA Watch+ is issued by 8:40 p.m., no event shall be called. Up to four 15-minute intervals immediately following the event and ending before 10:00p.m. are considered shoulder intervals.

- **Event Cancellation:** A load flexibility VPP event shall be cancelled if the host BA issues a cancellation of all applicable EEA Watch+ notices at least 20 minutes before the beginning of the first scheduled shoulder interval. (Real-time events are always initiated within 80 minutes of the highest LMP hours and start with core intervals. These events cannot be cancelled.)

F. Measuring Performance

Option 4 load flexibility VPP resources will be aggregated to the UDC territory for IOUs, trading hub for California ISO-integrated POUs, or BA area for non-California ISO POUs, collectively referred to as "territory."

1. ~~Water Heater~~ Load Impact Measurement

a. Non-Weather-Sensitive Resources

~~Electric water heater load reductions~~Load impacts of non-weather-sensitive resources, including electric water heaters, EVSE, and stationary batteries, shall be measured relative to a 10-in-10 day-matching non-event-day baseline consisting of the average ~~hourly~~15-minute load in the 10 preceding non-holiday weekdays or four preceding weekend/holiday days matching the event day type. A~~ny device without complete data during the baseline period for a given event shall be omitted from the calculation. The baseline for resource *r* during event hour *e* is the average load across the *n* (10 or 4) similar non-event days *d* in hour *h* corresponding to hour of event *e*:~~

$$~~Baseline_{r,e} = \frac{\sum_{d=1}^{n} Load_{d,h}}{n}~~$$

~~Load impacts ($LoadImpact_{r,e}$) for a resource r during event hour e are defined as the baseline load value ($Baseline_{r,e}$) minus the observed load for that event hour ($Load_{r,e}$):~~

$$LoadImpact_{r,e} = Baseline_{r,e} - Load_{r,e}$$

Load for aggregation a is the total load across all devices r during the 15-minute interval i of day d:

$$Load_{a,d,i} = \text{sum}(Load_{r,d,i})$$

The baseline for aggregation a during interval i of event day e is the average load across the n (10 or 4) similar non-event days d:

$$Baseline_{a,e,i} = \text{sum}(Load_{a,d,i})/n$$

Load impacts for aggregation a during event interval i of event day e are defined as the baseline load value minus the observed load for that event interval:

$$LoadImpact_{a,e,i} = Baseline_{a,e,i} - Load_{a,e,i}$$

A result of negative load impact implies that the ~~resource~~ aggregation increased load during the event relative to the baseline load level.

~~2. Smart Thermostat Load Impact Measurement~~

b. Weather-Sensitive Resources

~~Smart thermostat load impacts~~Load impacts of weather-sensitive resources, including smart thermostats, smart panels, and other HVAC devices, shall be calculated using a 4-in-10 weather-matching baseline with day-of adjustment applied to ~~HVAC~~ power draw if available, or compressor runtime if not. Runtime-based estimates of ~~hourly~~ load shall use an assumed connected load of 2.5 kW for full or high speed and 1.25 kW for partial or low speed. For example, on a multi-stage AC compressor, full or high speed would be the mode controlled by the Y2 wire and partial or low would be controlled by Y1. A single-stage compressor would be controlled only by any of Y, Y1, or Y2.

The process for calculating the estimated load impact is as follows:

- Step 0: If the load of the device is directly measured and recorded ~~at the hourly or sub-hourly level~~, skip this step. Otherwise, calculate the ~~hourly~~interval estimated load using the assumptions described above. For example, if in ~~an hour~~a 15-minute interval the compressor runs for ~~30~~5 minutes on high and ~~12~~2 minutes on low, the assumed load is 2.5kW*0.~~5h~~1h + 1.25kW*0.~~2h = 1.25kWh +~~04h = 0.25kWh ~~= 1.5kWh~~+ 0.05kWh = 0.3kWh.
- Step 1: Calculate the energy baseline (EB). Identify the four of the 10 preceding similar non-event days with the closest composite daily temperature (defined in the following section) to the event day. ~~Select all devices with complete actual or estimated load data available during the event day and the four selected baseline days.~~ Sum the ~~hourly~~ actual or estimated load interval

across all devices in each load flexibility VPP for both event days and non-event days. The EB is the average ~~hourly~~ load for the interval on the non-event days.

- Step 2: Calculate the day-of adjustment value (DOAV). A DOAV shall not be less than 0.60 or greater than 1.40. The DOAV is a ratio of (a) the average load of the first ~~three hours~~12 intervals of the ~~four hours~~16 intervals prior to the event (including shoulder intervals) to (b) the average load of the same ~~hours~~intervals from the days selected in accordance with Step 1 above. If either (a) or (b) are zero, the DOAV is 1.0.
- Step 3: Calculate the adjusted energy baseline (AEB). When the EB is greater than zero, the AEB for a DSGS event is calculated by multiplying the EB by the DOAV. If the EB is less than zero in an ~~hour~~interval, the AEB shall be equal to the EB (that is, DOAV treated as 1).
- Step 4: Calculate the aggregate load reduction during each event ~~hour~~interval. The incremental load reduction for each ~~hour~~interval is the AEB minus the event load.

Temperature for each territory is defined as a composite of the average of daily high and daily low temperatures from one or more California Measurement Advisory Council (CALMAC) weather stations.[11] The composite temperature (*TComp*) for utility territory *u* on date *d* is the weighted average of the average of daily high (*Tmax*) and daily low (*Tmin*) for all weather stations, using weights *W* for territory *u* from the ~~*n*~~ stations *s* from ~~Table 3~~Table 4 below:

$$TComp_{u,d} = \sum_{s=1}^{n} \frac{1}{2}(TMax_{s,d} + TMin_{s,d})W_{u,s}$$

$$TComp_{u,d} = \text{sum}((TMax_{s,d} + TMin_{s,d})/2 * W_{u,s})$$

~~Table 3: UDC/BA Temperature Weights~~

~~Station~~	~~BANC~~	~~LADWP~~	~~PG&E~~	~~SCE~~	~~SDG&E~~	~~TIDC~~	~~VEA~~
~~BURBANK~~	~~–~~	~~0.689~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~
~~FRESNO~~	~~–~~	~~–~~	~~0.247~~	~~–~~	~~–~~	~~–~~	~~–~~
~~IMPERIAL~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~1.000~~
~~LANCASTER~~	~~–~~	~~0.015~~	~~–~~	~~0.128~~	~~–~~	~~–~~	~~–~~
~~LONG BEACH~~	~~–~~	~~–~~	~~–~~	~~0.179~~	~~–~~	~~–~~	~~–~~
~~LOS ANGELES~~	~~–~~	~~0.296~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~
~~MERCED~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~1.000~~	~~–~~
~~MODESTO~~	~~0.378~~	~~–~~	~~0.022~~	~~–~~	~~–~~	~~–~~	~~–~~
~~RED BLUFF~~	~~0.270~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~
~~RIVERSIDE~~	~~–~~	~~–~~	~~–~~	~~0.693~~	~~–~~	~~–~~	~~–~~

11 https://www.calmac.org/weather.asp

~~SACRAMENTO~~	~~0.352~~	~~–~~	~~0.223~~	~~–~~	~~–~~	~~–~~	~~–~~
~~SAN DIEGO~~	~~–~~	~~–~~	~~–~~	~~–~~	~~0.473~~	~~–~~	~~–~~
~~SAN JOSE~~	~~–~~	~~–~~	~~0.259~~	~~–~~	~~–~~	~~–~~	~~–~~
~~SANTEE~~	~~–~~	~~–~~	~~–~~	~~–~~	~~0.527~~	~~–~~	~~–~~
~~UKIAH~~	~~–~~	~~–~~	~~0.249~~	~~–~~	~~–~~	~~–~~	~~–~~

~~Source: CEC staff~~

Table 4: UDC Temperature Weights

STATION	PG&E	SCE	SDG&E
BISHOP-AP	0.104	–	–
EL-MONTE	–	0.143	–
FRESNO-YOSEMITE-IAP	0.010	–	–
FULLERTON-MUNI-AP	–	0.302	–
LA-VERNE-BRACKETT	–	0.080	–
LIVERMORE-MUNI-AP	0.187	–	–
MERCED-CASTLE-AFB	0.083	–	–
MODESTO-CITY-CO-AP	0.172	–	–
OCEANSIDE-MUNI-AP	–	–	0.306
ONTARIO-IAP	–	0.059	–
PALMDALE-AP	–	0.100	–
PLACERVILLE-AP	0.014	–	–
RED-BLUFF-MUNI-AP	0.048	–	–
RIVERSIDE-MARCH-AFB	–	0.244	–
SACRAMENTO-EXECUTIVE-AP	0.093	–	–
SAN-DIEGO-GILLESPIE	–	–	0.694
SAN-JOSE-IAP	0.149	–	–
SANDBERG	0.095	0.072	–
UKIAH-MUNI-AP	0.045	–	–

Source: CEC staff. Weights represent the relative magnitude of coefficients from an elastic net regression of CalMAC weather station cooling degree days (reference composite temperature = 66ºF) on UDC TAC area daily peak load. Model reflects the highest penalty parameter value within one standard error of the minimum error.

~~Demonstrated capacity for load flexibility VPP *a* (all water heaters or thermostats within a territory) is defined as the weighted average aggregated net load reduction, where the weights are given by the relevant LMP across all load flexibility VPP program event (or test) hours over each month:~~

$$\text{~~Capacity}_a\text{~~} = \frac{\sum_{e=1}^{p}\left(\sum_{r=1}^{q} \text{~~LoadImpact}_{r,e}\text{~~}\right)\text{~~LMP}_e\text{Shoulder}_e}{\sum_{e=1}^{p} \text{~~LMP}_e}$$

~~Where *LoadImpact*$_{r,e}$ is the calculated load impact (kWh) of an individual resource *r* in event hour *e, q* is the number of resources in the load flexibility VPP *a*, *p* is the number of load flexibility VPP events or test intervals, *LMP*$_e$ is the day-ahead price in event hour *e,* and *Shoulder*$_e$ is 0.5 if event hour *e* is a shoulder hour and 1 otherwise. Any load flexibility VPP that shows a demonstrated capacity at or below zero will not be eligible for compensation.~~

2. Performance Evaluation

Load flexibility VPP measured load impacts shall be compared against the weather-normalized capability (WNC) for each event to determine performance and the final incentive amount.

For non-weather-sensitive resources, WNC is equal to nominated capacity.

For weather-sensitive resources, committed load reductions should reflect resource capabilities at the planning composite temperatures in Table 5. Peak composite temperatures in recent years are provided for reference.

Table 5: UDC Planning and Historical Peak Composite Temperatures

UDC	PLANNING TEMP (ºF)	2020	2021	2022	2023	2024
PG&E	**88.0**	90.3	86.3	91.5	85.5	88.4
SCE	**91.3**	92.9	84.4	92.6	85.3	92.1
SDG&E	**87.0**	87.4	80.2	86.2	80.3	89.2

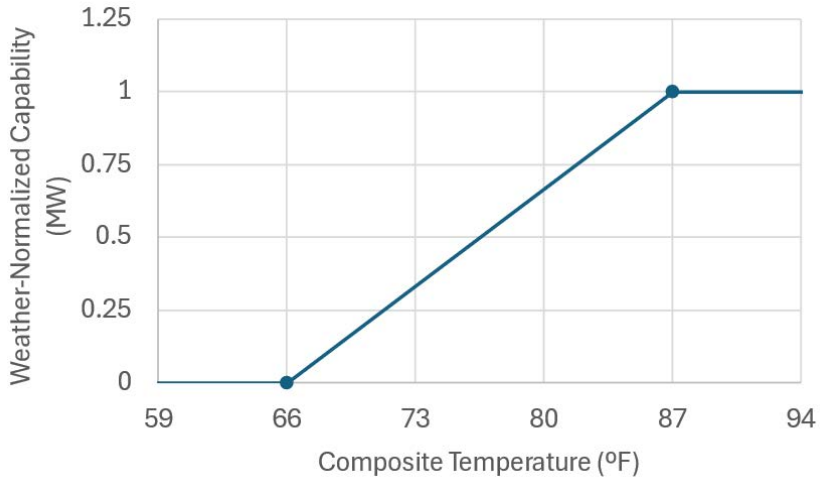
The WNC of a weather-sensitive aggregation in utility territory *u* in month *m* on date *d* is a function of nominated capacity (*Nominated*), composite temperature (*TComp*), and planning temperature as defined above (*TPlan*), as defined in Table 6.

Table 6: Weather Normalized Capability Formula

TEMPERATURE	WEATHER-NORMALIZED CAPABILITY ($WNC_{U,D}$)
$TComp_{u,d} \leq 66$	0
$66 < TComp_{u,d} < TPlan_u$	$Nominated_{u,m} * (TComp_{u,d} - 66) / (TPlan_u - 66)$
$TComp_{u,d} \geq TPlan_u$	$Nominated_{u,m}$

For example, an aggregation of 1,000 smart thermostats with an average load reduction commitment of 0.5 kW per device equates to a nominated capacity of 500 kW. If this aggregation is in the SDG&E service territory, that capacity value would represent the load reduction potential at the planning temperature of 87ºF. Below this level, the weather-normalized capability of the aggregation would decrease until it reaches zero at 66ºF, as shown in Figure 4.

Figure 4: Weather-normalized capability profile for SDG&E aggregation (planning temperature = 87ºF) with 1 MW capacity nomination



Each aggregation *u* will be assigned a performance score (*Performance*) of incremental load reduction (ILR) as a weighted percentage of WNC during each event interval *e*:

$$Performance_u = \frac{\text{sum}(ILR_{u,d,e} * LMP_{u,d,e} * (1 - 0.5 * Shoulder_{u,d,e}))}{\text{sum}(WNC_{u,d} * LMP_{u,d,e} * (1 - 0.5 * Shoulder_{u,d,e}))}$$

Where *Shoulder* is 1 if the interval is a shoulder interval and 0 if it is a core interval.

3. Performance-Adjusted Incentive Payment

In months with one or more load flex VPP events, the total incentive payment shall be adjusted relative to overall performance in the month according to the schedule summarized in Table 7.

Overperformance shall be compensated up to 120 percent of nominated capacity, and incentives for 120 percent of nominated capacity shall be set aside, subject to the availability of funds at time of nomination.

Compensation for performance below 100 percent of nominated capacity shall be reduced (derated) by two times the percentage shortfall below 100 percent, until the performance-adjusted payment reaches zero as performance declines to 50 percent of nominated capacity.

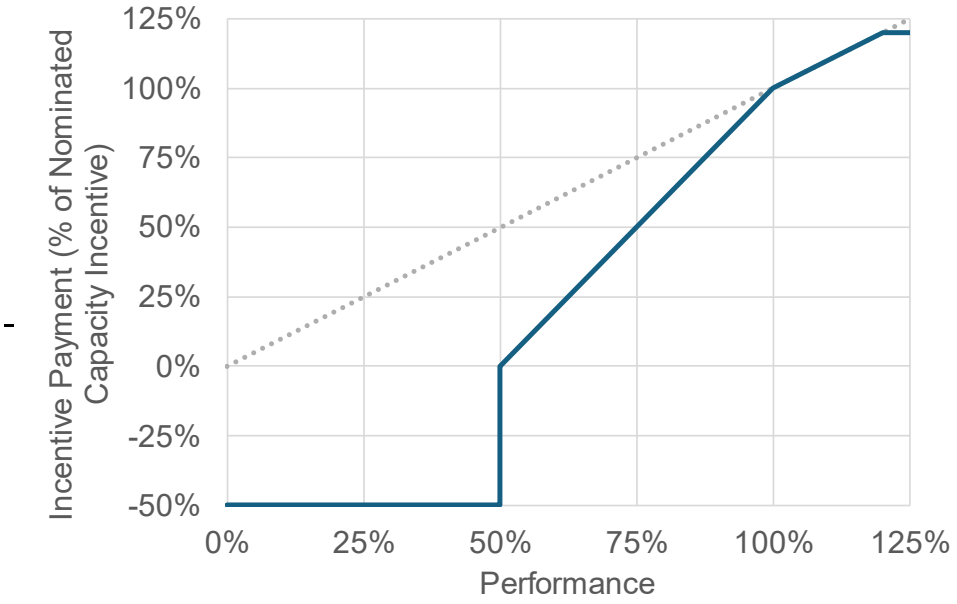
For performance below 50 percent of nominated capacity, an additional 50 percent of the nominated capacity incentive in that month shall be deducted (penalty) from other load flexibility VPP incentives earned by the provider in other months of the program year.

Table 7: Performance-Adjusted Incentive Payment Schedule

	PERFORMANCE (P)	INCENTIVE PAYMENT (% OF NOMINATED CAPACITY INCENTIVE)
OVERPERFORMANCE	P > 120%	120%
PRO-RATA	100% ≤ P < 120%	P
DERATED	50% ≤ P < 100%	100% – 2(100% – P)
PENALTY	P < 50%	-50%

The performance-adjusted payment schedule in each month is illustrated in Figure 5.

Figure 6: Performance-Adjusted Incentive Payment Illustration



In months without load flex VPP events, DSGS providers shall receive a performance-adjusted payment corresponding to performance of 100 percent of nominated capacity.

If the cumulative incentive payment across all months in the program season is a negative quantity, the seasonal payment is set to zero.

If the load flexibility aggregator withdraws from the program during the season, the seasonal payment is set to zero, even if the VPP performed during an event prior to the withdrawal.

Any funds remaining in the load flexibility aggregator's set aside after calculating the incentive payment will be released from the set aside.

Chapter 7:
Program Payments

This chapter identifies the information and steps to receive administrative costs and incentive payments.

A. Incentive Payments

DSGS providers shall pay eligible incentive amounts under Incentive Option 1 directly to their participants and submit to the CEC claims for administrative costs and incentive payments. Participants enrolled directly with the CEC shall submit to the CEC claims for incentive payments. DSGS providers shall submit to the CEC claims for incentive payments under Incentive Options 2, 3, and 4 and shall allocate incentive payments between the DSGS provider and its participants pursuant to the terms and conditions agreed to between the DSGS provider and participant.

B. Administrative Costs

1. The CEC shall reimburse each DSGS provider for up to $1 million per year in administrative costs associated with implementing Incentive Option 1 ~~when DSGS events occur during the program season (May-October) and up to $7,500 per year when no DSGS events occur during the program season.~~. The DSGS provider shall select one of the following administrative cost structures:
   a. Actual incremental costs incurred in administering Incentive Option 1, such as costs derived from employee timesheets or invoices from third-party contractors, pending specified conditions, and for indirect/overhead costs (not to exceed 10 percent of actual incremental costs or a federally approved indirect rate from a federal agency as evidenced by an approval letter).
   b. Ten percent of incentive payments provided to participants under Incentive Option 1, or if an electrical corporation, 5 percent of incentive payments provided to participants under Incentive Option 1.
2. The CEC shall also reimburse for the following actual costs incurred by utilities and federal power marketing administrations in facilitating an aggregator's administration of the program in the utility's service territory and a direct participant's participation in the program~~.~~:
   a. Costs incurred to verify customers are eligible to enroll in the program.
   b. Costs incurred to provide customer data necessary for program enrollment and incentive claims.

   These costs may be reimbursed directly to the utility or federal power marketing administration, or to the DSGS provider billed for direct costs. Each utility and federal power marketing administration is limited to reimbursement of up to $250,000 each year in actual incremental costs.

C. Process for Requesting Administrative Costs and Incentive Payments

1. Claim Timing

The CEC shall accept and review claims for administrative costs and incentive payments on a first-come, first-served basis.

a. ~~Initial~~ Incentive Option 3 and Incentive Option 4 ~~participant-level~~ claim~~s~~ ~~information requested in Section C.2.a.1~~ must be submitted by the last business day of ~~December~~November of the same calendar year in which the program season occurred. All other claims must be submitted by the last business day of February of the following calendar year. The date and time of the electronically submitted completed claim will establish the order in the queue for review of claims. DSGS providers will not be penalized for late claim submissions if the CEC has an outstanding data request necessary to submit a claim.

b. The CEC shall notify claimants if claim packages are incomplete. The claimant shall supplement the incomplete claim within 10 business days. Failure to respond within the 10 business days will result in the cancellation of the claim.

c. The cancellation of a claim does not preclude a claimant from resubmitting a claim, but the date and time of the electronic resubmission will determine the order of review of the claim. The claimant must explain the changes in the re-submitted claim and how the issues for the initial rejection are addressed.

2. Claim Package~~s~~

a. DSGS Provider Claim Package

DSGS providers must include the following items:

i. The following information in a format provided by the CEC:

- Reporting period
- DSGS provider name
- DSGS provider's contact name, title, email address, and phone number
- For each participant with resources enrolled in Incentive Option 1:
  - Participant name
  - Type of resources dispatched, including the applicable loading order category (for example, demand-response or efficiency resource, renewable or zero-emission resources, near-zero-emission resource, biomethane or natural gas resource, or diesel backup generator or other conventional resource, or any combination of the above)
  - Address where each resource is located and customer identification number (both must match ~~what was~~ the information provided in the participation reports)
  - Verified incremental load reduction (~~in~~ kWh) ~~dispatched~~ delivered to the grid each hour of each dispatch period during the reporting period

- Eligible standby commitment amount (in kWh) each hour during the reporting period, as described in Chapter 3
- Amount of incremental increases in customer demand charges that result from participation in the program during the billing period in which a DSGS Program event occurred, if any, and supporting documentation
- Documentation ~~evidencing~~ demonstrating load-reduction activities, such as meter data and supporting calculations ~~demonstrating~~ showing how the claimant calculated the baseline and ~~actual~~ load-reduction amount.
- ~~If claiming the one-time controllable generation incentive described in Chapter 3, Section C.4, kW or HP as defined on the specification sheet of the generator and supporting documentation.~~

- For participation under Incentive Option 2, if requested by the CEC:
  - Real-time market bids and self-schedules (in kWh) by Resource ID
  - Total Expected Energy (TEE, in kWh) by Resource ID
  - Demand response energy measurement (DREM, in kWh) by Resource ID
  - Customer-weighted average of daily high and low temperature by dispatch event
- ~~For each participant within a VPP enrolled under Incentive Option 3:~~
  - ~~UDC and site address, SAID, or both, for all participants enrolled in each participation month.~~
  - ~~Hourly submetered or battery inverter charge and discharge data (kWh) for each participant, or hourly site load for export-only DR participants, labeled with the unique identification number, for the entirety of each month in which the participant was enrolled in the DSGS program under Incentive Option 3.~~
  - ~~If no full-duration events occurred within a participation month: the date, start time, and stop time of any test events within the month.~~
- ~~For each participant within a load flexibility aggregation enrolled under Incentive Option 4:~~
  - ~~UDC, site address, and device type (smart thermostat, heat pump water heater, or electric resistance water heater) for all participants enrolled in each participation month.~~
  - ~~Hourly device-level load data (kWh) or smart thermostat runtime (minutes) at full and partial compressor speed for each participant, labeled with the unique identification number, for the entirety of each month in which the participant was enrolled in the DSGS program under Incentive Option 4.~~

- ~~If no full-duration events occurred within a participation month: the date, start time, and stop time of any test events within the month.~~

ii. For administration of Incentive Option 1, amount of administrative costs being claimed based on the selected administrative cost reimbursement structure described in Chapter 7, Section B.1. ~~DSGS providers~~ Claims seeking reimbursement based on ~~actual i~~ncremental administrative costs must provide supporting documentation ~~evidencing claimed administrative costs~~.

iii. Payee data record (STD-204). If the designated payee has already submitted a complete STD-204 form with a prior reimbursement claim and has received a payment within the past year from the CEC, a new STD-204 is not needed.

iv. Attestation, submitted under penalty of perjury, that the requested payment will reimburse eligible incentive payments and administrative costs and to the ~~accuracy and completeness of the i~~nformation submitted is complete and accurate.

b. Direct Participant Claim Package

Participants enrolled directly with the CEC must provide the following items:

i. The following information in a format provided by the CEC:

- Reporting period
- Participant name
- Participant's contact name, title, email address, and phone number
- For each load-reduction resource:
  - Load-serving entity for the resource
  - Type of resource, including the applicable loading order category (for example, demand-response or efficiency resource, renewable or zero-emission resources, near-zero-emission resource, biomethane or natural gas resource, or diesel backup generator or other conventional resource, or any combination of the above)
  - Address where the resource is located
  - Eligible standby (in kWh) each hour during the reporting period, as described in Chapter 3
  - If claiming the one-time controllable generation incentive described in Chapter 3, Section C.4, kW or HP as defined on the specification sheet of the generator and supporting documentation.
  - Interval meter data (or if IOU customer, authorize data sharing with DSGS admin) or other documentation evidencing load-reduction activities if interval meter data are not available.
- Amount of incremental increases in customer demand charges that result from participation in the program during the billing period in which a DSGS Program event occurred, if any, and supporting documentation

ii. Payee data record (STD-204). If the designated payee has already submitted a complete STD-204 form with a prior reimbursement claim and has received a payment within the past year from the CEC, a new STD-204 is not needed.

iii. Attestation, submitted under penalty of perjury, that the requested payment will reimburse eligible incentive payments and to the ~~accuracy and completeness of the~~ information submitted is complete and accurate.

c. Utility and Federal Power Marketing Administration Claim Package for Administrative Cost ~~Claim Package~~

Utilities and federal power marketing administrations claiming ~~actual~~ incremental costs pursuant to Chapter 7, Section B.2, must provide the following items:

i. Reporting period

ii. Utility or federal power marketing administration name

iii. Contact person's name, title, email address, and phone number

iv. Amount of administrative costs being claimed

v. Documentation evidencing claimed administrative costs

vi. Payee data record (STD-204). If the designated payee has already submitted a complete STD-204 form with a prior reimbursement claim and has received a payment within the past year from the CEC, a new STD-204 is not needed.

vii. Verification in writing that:

- The payment will reimburse eligible administrative costs.
- The utility or federal power marketing administration is not receiving compensation from another source for the administrative costs included in the claim.
- The information submitted is accurate and complete.
- The utility or federal power marketing administration agrees to the requirements of the terms listed in Chapter 7, Section S.

3. Claim Review and Approval

If, during the claim review, a complete and timely submitted ~~reimbursement~~ claim package is found to contain minor errors, discrepancies, or omissions, the CEC will request clarification from the claimant. The claimant will be responsible for ~~obtaining~~providing all information requested by the CEC to process the request. The CEC may impose a reasonable deadline for claimants to respond to and provide any information requested under this section. Failure to respond by the deadline provided will result in the cancellation of the claim.

If ~~the claim package demonstrates that~~ a claimed cost in the claim package is found to be ineligible for reimbursement, the CEC will not approve the claimed cost.

Payment of approved eligible incentive payments and administrative costs reimbursements will be made to the payee according to the Payee Data Record (STD-204).

CHAPTER 8: Administration

A. Effective Date of Guidelines

This edition of the DSGS Program Guidelines will take effect immediately upon approval at a CEC business meeting. The CEC will post the adopted DSGS Program Guidelines on its website, available at https://www.energy.ca.gov/programs-and-topics/programs/demand-side-grid-support-program.

Applicants and interested persons may also obtain the program guidelines by contacting DSGS@energy.ca.gov.

B. Compliance and Verification

As a condition of receiving a DSGS incentive, DSGS providers and participants must agree to provide the CEC with access to relevant documents to verify load-reduction activities and confirm that funding is being used to reimburse eligible administrative costs and incentive payments as directed by DSGS Program Guidelines. CEC staff, and its agents, may take various steps, as needed, to ensure compliance with program requirements.

DSGS providers and participants must agree to provide information, access to participant application records, and documentation evidencing load-reduction activities as reasonably requested by CEC staff, or its agent, to verify eligibility for DSGS incentives. These steps may include:

1. Requesting relevant documents or other materials from the DSGS provider or participant.
2. Contacting the participant or its retail supplier.
3. Contacting the California ISO or applicable balancing authority.
4. Performing an audit, as discussed below in Section E.

C. Enforcement

In addition to any other rights the CEC has, the CEC may take any of the following actions necessary to enforce the CEC's rights and program requirements. By applying for funds under this program, DSGS providers and participants agree that any effort to enforce this funding arrangement in court shall have the venue in Sacramento County, and this funding arrangement shall be interpreted in accordance with and governed in all respects by California law.

1. Recovery of Overpayment

In addition to all rights and remedies available to the CEC, the CEC may direct its chief counsel to commence formal legal action against any current or former DSGS provider or participant to recover any portion of an incentive or administrative payment, and any other amounts due under the law, that the CEC's executive director determines the

DSGS provider or participant or former DSGS provider or participant was not otherwise entitled to receive.

2. Fraud and Misrepresentation

The executive director may initiate an investigation of any current or former DSGS provider, participant, or applicant that the executive director has reason to believe may have misstated, falsified, or misrepresented information in submitting an application, reimbursement request, or any reporting or other information required under the program. Based on the results of the investigation, the executive director may take any action deemed appropriate, including, but not limited to, removal from the program and recovery of any overpayment, and, with the concurrence of the CEC, recommending the Attorney General initiate an investigation and prosecution under Government Code Section 12650, et seq., or other provisions of law.

3. Noncompliance With Guidelines

The CEC may seek remedies for noncompliance with guideline requirements and terms, including, but not limited to, termination of enrollment, withholding requested payments, recovery of funds, or any other administrative or civil action.

Without limiting any of its other remedies, the CEC may, for eligible DSGS provider's, participant's, or applicant's noncompliance with any guideline requirement, withhold future reimbursement payments, demand and be entitled to repayment of past reimbursements, and suspend or cancel the DSGS provider's or participant's enrollment.

D. Audits

DSGS providers and participants shall keep separate, complete, and correct accounting of the costs involved in participating in this program, as applicable. The CEC, the Bureau of State Audits, or their authorized agents may audit any applicant or participant to verify compliance with all program requirements, including the accuracy of any information included as part of the application, reimbursement claim, or report required under these guidelines. As part of an audit, a DSGS provider or participant may be required to provide the CEC or its authorized agents with all information and records necessary to verify the accuracy of any information included in the DSGS provider's or participant's application, reimbursement claims, or reports. A DSGS provider or participant may also be required to open its business records for on-site inspections and audit by the CEC or its authorized agents to verify the accuracy of any information included therein. An audit may be performed at any time within five years after payment by the CEC of the DSGS provider's or participant's final claim payment.

If an audit finds that a DSGS provider or participant has incorrectly stated or falsified information included on the DSGS provider's or participant's application, claims, or reports, the CEC shall notify the DSGS provider or participant of its findings in writing within 30 days of completing the audit. Based on the audit results and without limiting any of CEC's other rights, a DSGS provider or participant may be required to refund all or a portion of the DSGS claim payments it has received. In addition, the DSGS provider's or

participant's enrollment may be terminated and enforcement actions initiated following Section D of Chapter 8: Administration.

E. Authorized Third Parties

Authorized third parties may complete applications on behalf of an eligible DSGS provider but may not sign attestations on their behalf. A letter of authorization from the DSGS provider specifying any authority or responsibility delegated to the third party is required as part of the application package.

F. Records Retention: Use and Disclosure of Information and Records and Confidentiality

Any entity receiving a DSGS payment from the CEC must retain all records required to be submitted to the CEC for a period of five years after the date the project receives its final, or most recent, incentive payment from the CEC. Unless an applicable exception or exemption to public disclosure applies, all documents submitted to the CEC or its technical assistance providers, including as part of any audit, are considered public records subject to disclosure under the California Public Records Act. The CEC or other state agencies may also use any of these documents or information for any purpose, including to determine eligibility and compliance with the DSGS Program, applicable law, or a particular guideline document; evaluate related or relevant programs or program elements; or prepare reports. These documents and information include, but are not limited to, applications, invoices, and any documentation submitted in support of the applications; all incentive deliverables; and documents prepared for other reporting requirements.

If the CEC requires a DSGS provider or participant to provide copies of records that the DSGS provider or participant believes contain confidential, proprietary, or any other information entitled to protection under the California Public Records Act or other law, the DSGS provider or participant may request that such records be designated confidential according to the CEC's regulations for confidential designation, Title 20, California Code of Regulations, Section 2505. If the confidential information within a document can be redacted without removing the portion of the record that is required for verification of compliance with these guidelines, the DSGS provider or participant shall submit versions of documents with the confidential information masked or redacted rather than requesting confidential designation. Questions regarding whether redactions may inhibit verification of compliance with these guidelines should be submitted to CEC staff with sufficient time to resolve the question before reimbursement.

DSGS providers and participants considering confidentiality should note that DSGS funds are subject to information disclosure requirements to ensure transparency. Information concerning the identity of DSGS providers and participants and the amounts provided are public information and will be published in CEC reports and disclosed in response to requests filed under the California Public Records Act. This information, as well as other public information, may also be disclosed through the CEC's website, another State of California agency website, or through other means. The CEC will not disclose information

in a manner that is otherwise protected by the Public Records Act, including qualifying trade secrets or confidential or privileged information, including energy use.

In addition to any other disclosure requirements under the law, the CEC can disclose confidential information and records to other governmental entities, including other local, state, or federal agencies that are funding eligible projects, and law enforcement authorities for civil and criminal investigation and enforcement.

G. Nondiscrimination Statement of Compliance

While participating in the DSGS Program, DSGS providers, DSGS participants, and subcontractors will not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of any of the following:

- Sex
- Sexual orientation
- Race
- Color
- Ancestry
- Religious creed
- National origin
- Physical disability (including HIV and AIDS)
- Mental disability
- Medical condition
- Age
- Genetic information
- Gender
- Gender identity
- Gender expression
- Military and veterans status
- Marital status
- Denial of family care leave

DSGS providers, DSGS participants, and subcontractors will ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.

DSGS providers, DSGS participants, and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code Sections 12990 et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 11000 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in

Chapter 5 of Division 4.1 of Title 2 of the California Code of Regulations, are incorporated into these guidelines by reference and made a part of it as if set forth in full. The DSGS provider, DSGS participants, and subcontractors will give written notice of their obligations under this section to labor organizations with which they have a collective bargaining or other agreement.

DSGS providers shall include and shall ensure all subcontractors include the nondiscrimination and compliance provisions in this section in all subcontracts under this program.

H. Drug-Free Workplace Certification

By participating in the DSGS Program, the DSGS provider certifies under penalty of perjury under the laws of the State of California that it will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations as required by Government Code Section 8355(a).
2. Establish a Drug-Free Awareness Program as required by Government Code Section 8355(b) to inform employees about:
    - The dangers of drug abuse in the workplace.
    - The person's or organization's policy of maintaining a drug-free workplace.
    - Any available counseling, rehabilitation, and employee assistance programs.
    - Penalties that may be imposed upon employees for drug abuse violations.
3. Provide, as required by Government Code Section 8355(c), that every employee who works on the proposed project:
    - Will receive a copy of the company's drug-free policy statement.
    - Will agree to abide by the terms of the company's statement as a condition of employment on the project.

In addition to any other rights and remedies available to the CEC, failure to comply with these requirements may result in suspension of payments under the DSGS Program or termination of participation, and the DSGS provider may be ineligible for any future state awards if the CEC determines that any of the following has occurred: (1) the DSGS provider has made false certification or (2) violates the certification by failing to carry out the requirements as noted above.

J. Americans With Disabilities Act

By participating in the DSGS Program, the DSGS provider assures the CEC that it complies with the Americans with Disabilities Act (ADA) of 1990 (42 U.S.C. Section 12101, et seq.), which prohibits discrimination on the basis of disability, as well as applicable regulations and guidelines issued pursuant to the ADA.

K. Air or Water Pollution Violation

This term applies to DSGS providers receiving more than $10,000. Under state laws, DSGS providers shall not be (1) in violation of any order or resolution not subject to review promulgated by the California Air Resources Board or an air pollution control district, (2) subject to cease and desist order not subject to review issued under Section 13301 of the Water Code for violation of waste discharge requirements or discharge prohibitions, or (3) finally determined to be in violation of provisions of federal law relating to air or water pollution.

L. Prompt Payment

Payment will be made in accordance with the Prompt Payment Act, Government Code Chapter 4.5, commencing with Section 927, which requires payment of properly submitted, undisputed invoices within 45 days of receipt or the automatic calculation and payment of appropriate late payment penalties when applicable.

M. Amendments

No amendment or variation of the terms of the agreement between the CEC and DSGS providers shall be valid unless made in writing, signed by the parties, and approved as required. No oral understanding or agreement not incorporated in the agreement is binding on any of the parties.

N. Termination Without Cause

The CEC may terminate agreements with a DSGS provider without cause upon giving written notice. In this event, the DSGS provider will use all reasonable efforts to mitigate its expenses and obligations.

O. Public Works

If a DSGS provider engages in public works or has subcontractors or DSGS participants engage in public works under this program, the DSGS provider shall comply with all applicable public works laws (for example, Labor Code Section 1720 et seq.), a requirement of which is to pay prevailing wages. If an entity engages in public works, then it is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

P. Independent Capacity

In their performance under this program, DSGS providers, DSGS participants, and subcontractors and their respective agents and employees will act in an independent capacity and not as officers, employees, or agents of the CEC or the State of California.

Q. Third-Party Beneficiary

DSGS providers shall ensure every subcontract and agreement with DSGS participants under this program includes a provision indicating the CEC is a third-party beneficiary to the agreement.

R. Travel and Per Diem

1. Any travel for which DSGS providers and subcontractors want to be reimbursed must be preapproved in writing by the CEC before such costs are incurred.
2. The CEC shall only pay travel and per diem up to, but not to exceed, the rates allowed for nonrepresented state employees. Current allowable travel reimbursement rates can be obtained from the CEC at http://www.energy.ca.gov/contracts/TRAVEL_PER_DIEM.PDF.
3. DSGS providers and their subcontractors shall not invoice for or spend, and the CEC shall not pay, any CEC funds for food or beverages other than for allowable per diem charges. DSGS providers and their subcontractors are responsible for any amounts more than this allowed amount.
4. DSGS providers and their subcontractors shall not invoice for or spend, and the CEC shall not pay, any CEC funds for alcohol or travel and meals for non-DSGS, entertainment, or public relations purposes.
5. DSGS providers shall not allow subcontractors to invoice for, and the CEC shall not pay, any funds for a profit amount greater than 10 percent.

S. Flow-Down Requirements

DSGS providers shall flow down in their agreements with subcontractors and DSGS direct participants and shall ensure subcontractors flow down in their subcontracts, the requirements in the following terms:

- Compliance and Verification (Chapter 8, Section C)
- Enforcement (Chapter 8, Section D)
- Audits (Chapter 8, Section E)
- Records Retention (Chapter 8, Section G)
- Nondiscrimination Statement of Compliance (Chapter 8, Section H)
- Drug-Free Workplace Certification (Chapter 8, Section I)
- Americans With Disabilities Act (Chapter 8, Section J)
- Air and Water Pollution Violation (Chapter 8, Section K)
- Prompt Payment (Chapter 8, Section L)
- Public Works (Chapter 8, Section O)
- Third-Party Beneficiary (Chapter 8, Section Q)
- Travel and Per Diem (Chapter 8, Section R)
- Flow-Down Requirements (Chapter 8, Section S, this section)
- Survival of Terms (Chapter 8, Section V)
- A provision indicating the person or entity agrees to comply with all applicable laws and DSGS Program requirements.

T. Severability

If any provision of these guidelines is unenforceable or held to be unenforceable, all other provisions of these guidelines will remain in full force and effect.

U. Waiver

No waiver of any breach of these guidelines constitutes waiver of any other breach. All remedies in these guidelines will be taken and construed as cumulative, meaning in addition to every other remedy provided in the guidelines or by law.

V. Survival of Terms

Certain provisions will survive the withdrawal of a DSGS provider or participant from the program for any reason. The provisions include, but are not limited to:

- Program Payments (Chapter 7).
- Compliance and Verification (Chapter 8, Section C).
- Enforcement (Chapter 8, Section D).
- Audits (Chapter 8, Section E).
- Records Retention: Use and Disclosure of Information and Records and Confidentiality (Chapter 8, Section G).
- Public Works (Chapter 8, Section O).
- Third-Party Beneficiary (Chapter 8, Section Q).
- Severability (Chapter 8, Section T).
- Waiver (Chapter 8, Section U).
- Survival of Terms (Chapter 8, Section V, this section).

Reference Documents

Assembly Bill 205 (Committee on budget, Stats. 2022, Ch. 61)
https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB205

Assembly Bill 209 (Committee on budget, Stats 2022, Ch. 251)
https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB209

California ISO Emergency Notifications Fact Sheet
http://www.caiso.com/Documents/Emergency-Notifications-Fact-Sheet.pdf

North American Electric Reliability Corporation Reliability Standard EOP-011-1
https://www.nerc.com/pa/Stand/Reliability%20Standards/EOP-011-1.pdf

GLOSSARY

Key Words and Terms

Word/Term	Definition
Aggregator	An entity that dispatches behind-the-meter load reduction or battery storage or EV supply equipment ~~discharge of~~ multiple customers in a coordinated manner in response to a signal for the benefit of from a load-serving entity, utility or balancing authority.
Agricultural and Pumping Interruptible Program	A demand response program in Southern California Edison's (SCE) territory that offers monthly bill credits to businesses that agree to temporarily interrupt their electricity service during peak energy demand.
Balancing authority area	A balancing authority area as defined in Public Utilities Code section 399.12(c).
Base Interruptible Program (BIP)	A program created by the CPUC and managed by the state's IOUs that pays customers to reduce their electricity use during electrical grid emergencies.
Behind the Meter (BTM)	Refers to energy resources located on the customer's side of the utility meter.
Balancing Authority	An entity that manages the operation of the electric power system within a specific geographic area. The goals of a balancing authority are to maintain balance between power demand and supply~~,~~ and to sustain safe and reliable operation of the power system.
California Independent System Operator (California ISO)	A ~~non-profit Independent System Operator~~ balancing authority serving most of California. California ISO oversees the operation of California's bulk electric power system, transmission lines, and electricity markets~~ generated and transmitted by its member utilities~~.

California Public Utilities Commission (PUC)	The California Public Utilities Commission is the state agency charged with regulating privately owned utilities (electric, natural gas, telecommunications, water), railroad, rail transit, and passenger transportation companies.
California Energy Commission (CEC)	State Energy Resources Conservation and Development Commission, commonly called the California Energy Commission, the Energy Commission, or the CEC. The state's primary energy policy and planning agency. The agency was established by the California Legislature through the Warren-Alquist Act in 1974. It has seven core responsibilities: (1) Developing renewable energy (2) Transforming transportation (3) Increasing energy efficiency (4) Investing in energy innovation (5) Advancing state energy policy (6) Certifying thermal power plants (7) Preparing for energy emergencies This term also includes any entity the CEC has contracted with to implement all or part of this program.
Cogeneration	The simultaneous production of electricity and heat, where ~~both of which are~~ the latter is utilized for a useful function to improve overall efficiency of the system.
Community choice aggregator	Community choice aggregator means any of the following entities, if that entity is not within the jurisdiction of a local publicly owned electric utility, that provided electrical service as of January 1, 2003: (a) Any city, county, or city and county whose governing board elects to combine the loads of its residents, businesses, and municipal facilities in a communitywide electricity buyers' program. (b) Any group of cities, counties, or cities and counties whose governing boards have elected to combine the loads of their programs, through the formation of a joint powers agency established under Chapter 5 (commencing with Section 6500) of Division 7 of Title 1 of the Government Code. (c) The Kings River Conservation District, the Sonoma County Water Agency, and any California public agency possessing statutory authority to generate and deliver electricity at retail within its designated jurisdiction, provided the entity may only combine the loads of residences, businesses, and governmental

	facilities of cities and counties within, or contiguous to, its jurisdiction that have, by resolution exercised pursuant to paragraph (12) of subdivision (c) of Section 366.2, requested the agency to implement a community choice aggregation program. (Public Utilities Code Section 331.1.)
Customer(s)	A utility service account representing a home, business, or other entity.
Demand Response	Customers make temporary or recurring changes in their energy consumption profile (typically reduce or shift net demand) in response to grid or price signals to provide grid services in exchange for incentives or compensation from an energy service provider, utility, or Cal ISO .~~Providing wholesale and retail electricity customers with the ability to choose to respond to time-based prices and other incentives by reducing or shifting electricity use, particularly during peak demand periods, so that changes in customer demand become a viable option for addressing pricing, system operations and reliability, infrastructure planning, operation and deferral, and other issues.~~
DSGS Program event	DSGS Program events include the ~~emergency~~ dispatch periods described in the DSGS guidelines for the various incentive options to prompt enrolled devices to reduce demand or increase supply to reduce stress on the power grid.~~Program Events and Notification Process in Chapter 4, Section C and Section D, and a dispatch pursuant to the requirements outlined in Option 3: Capacity Payment and Bid Structure in Chapter 3, Section C.~~
DSGS provider	A retail supplier as defined in Public Utilities Code Section 398.2, Federal power marketing administrations, and aggregators of customers enrolled with the CEC to administer the DSGS Program for participants.
EEA Watch	An Energy Emergency Alert Watch issued by the California ISO when analysis shows all available resources are committed or forecasted to be in use, and energy deficiencies are expected. Market participants are encouraged to offer supplemental energy (California ISO Emergency Notifications Fact Sheet, https://www.caiso.com/documents/emergency-notifications-fact-sheet.pdf).
EEA 1	An Energy Emergency Alert 1 as defined in the North American Electric Reliability Corporation's Reliability Standard EOP-011-1. A balancing authority issues an EEA 1 when it is experiencing conditions where all available generation resources are committed to meet firm load, firm transactions, and reserve

	commitments, and is concerned about sustaining its required contingency reserves.
EEA 2	An Energy Emergency Alert 2 as defined in the North American Electric Reliability Corporation's Reliability Standard EOP-011-1. A balancing authority issues an EEA 2 when it is no longer able to provide its expected energy requirements and is energy deficient.
EEA 3	An Energy Emergency Alert 3 as defined in the North American Electric Reliability Corporation's Reliability Standard EOP-011-1. An energy deficient balancing authority issues an EEA 3 when it is unable to meet minimum contingency reserve requirements.
Electric Vehicle Supply Equipment (EVSE)	The equipment that connects an electric vehicle (EV) to a power source to charge its battery.
Emergency Load Reduction Program (ELRP)	A program created by the CPUC in Decision 21-03-056 and managed by the State's IOUs to pay electricity consumers for reducing energy consumption or increasing electricity supply during electrical grid emergencies.
Energy Baseline	An estimate of typical energy demand for a given customer during a DR event, usually based on historical behavior of that resource.
Extreme event	An extreme event is defined in Public Resources Code Section 25790.5(b) to mean either of the following: (a) An event occurring at a time and place in which weather, climate, or environmental conditions, including temperature, precipitation, drought, fire, or flooding, present a level of risk that would constitute or exceed a one-in-ten event, as referred to by the North American Electric Reliability Corporation, including when forecast in advance by a load-serving entity or local publicly owned electric utility. (b) An event where emergency measures are taken by a California balancing authority, including when forecast in advance by the California balancing authority.
Investor-owned utility (IOU)	As used in this document, investor-owned utilities include Pacific Gas and Electric Company (PG&E), Southern California Edison, and San Diego Gas & Electric Company (SDG&E).
Load reduction	A decrease in electric demand as measured at a customer site relative to a counterfactual baseline. Load reductions include

	behind-the-meter generation or storage discharge that result in negative demand (that is, exports) except where otherwise prohibited.
Load-serving entity	An electric customer's retail supplier or federal power marketing administration.
Local publicly owned electric utility (POU)	Local publicly owned electric utility means a municipality or municipal corporation operating as a "public utility" furnishing electric service as provided in Section 10001, a municipal utility district furnishing electric service formed pursuant to Division 6 (commencing with Section 11501), a public utility district furnishing electric services formed pursuant to the Public Utility District Act set forth in Division 7 (commencing with Section 15501), an irrigation district furnishing electric services formed pursuant to the Irrigation District Law set forth in Division 11 (commencing with Section 20500) of the Water Code, or a joint powers authority that includes one or more of these agencies and that owns generation or transmission facilities, or furnishes electric services over its own or its member's electric distribution system. (Public Utility Code Section 224.3.)
Locational Marginal Price (LMP)	The marginal price for energy at the location where the energy is delivered or received and is based on forecasted system conditions and the latest approved real-time security constrained economic dispatch program solution. LMP is expressed in dollars per megawatt-hour ($/MWh). LMP is a pricing approach that addresses Transmission System congestion and loss costs, as well as energy costs.
Nameplate Energy Storage Capacity	The manufacturer's published maximum usable energy storage capacity (kWh) for a given energy storage product.
Nameplate Power Rating	The manufacturer's published theoretical maximum discharge power (kW) for a given energy storage product.
Participant	An energy customer that has enrolled in the DSGS Program
Proxy Demand Resource (PDR)	Economic demand response comprised of a load or aggregation of loads that bid into the California ISO market under normal operating conditions.
Rule 21	CPUC Electric Rule 21 is a tariff that describes the interconnection, operating, and metering requirements for

	generation facilities to be connected to a utility's distribution system.
Self-Generation Incentive Program (SGIP)	Administered by the CPUC, the Self-Generation Incentive Program (SGIP) provides incentives to support existing, new, and emerging distributed energy resources. SGIP provides rebates for qualifying distributed energy systems installed on the customer's side of the utility meter. Qualifying technologies include wind turbines, waste heat to power technologies, pressure reduction turbines, internal combustion engines, microturbines, gas turbines, fuel cells, and advanced energy storage systems.
Smart Panel	An electrical panel with a communication link that enables remote monitoring and dispatch control of devices connected to the panel.
Strategic Reliability Reserve (SRR)	A state program that provides funding to secure conventional generation, efficiency upgrades at existing natural gas plants, demand response, distributed generation, and long-duration storage. The SRR consists of three programs, two of which are administered by the CEC and one is administered by the Department of Water Resources.
Subcontract	An executed contract between a DSGS provider and a person or entity assisting the DSGS provider in fulfilling the requirements of this program that is not a DSGS participant. ~~It also means any lower tier of sub-subcontract.~~
Subcontractor	A person or entity that executes a subcontract with a DSGS provider.
Virtual Power Plant (VPP)	A network of~~-decentralized power generating units, flexible loads, and energy storage systems~~ behind-the-meter customer operated distributed energy resource (DER) devices that respond to a grid signal ~~or coordinated set of signals~~ to benefit the electric grid.