

**DOCKETED**

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<b>Description:</b>	Staff workshop presentation slides for the Demand Side Grid Support program
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# **DSGS Program Staff Workshop**

Demand Side Grid Support (DSGS) Program Draft Guidelines



July 25, 2022



# Welcome

Vice Chair Siva Gunda





# Compounding Reliability Risks

*Planning*

- Historic conditions
- Average Climate Change Trends
- Begin to incorporate climate change uncertainty
- Increase effective PRM
- Identify Contingency Measures
- Re-assessing PRM
- Identifying need for a strategic reserve

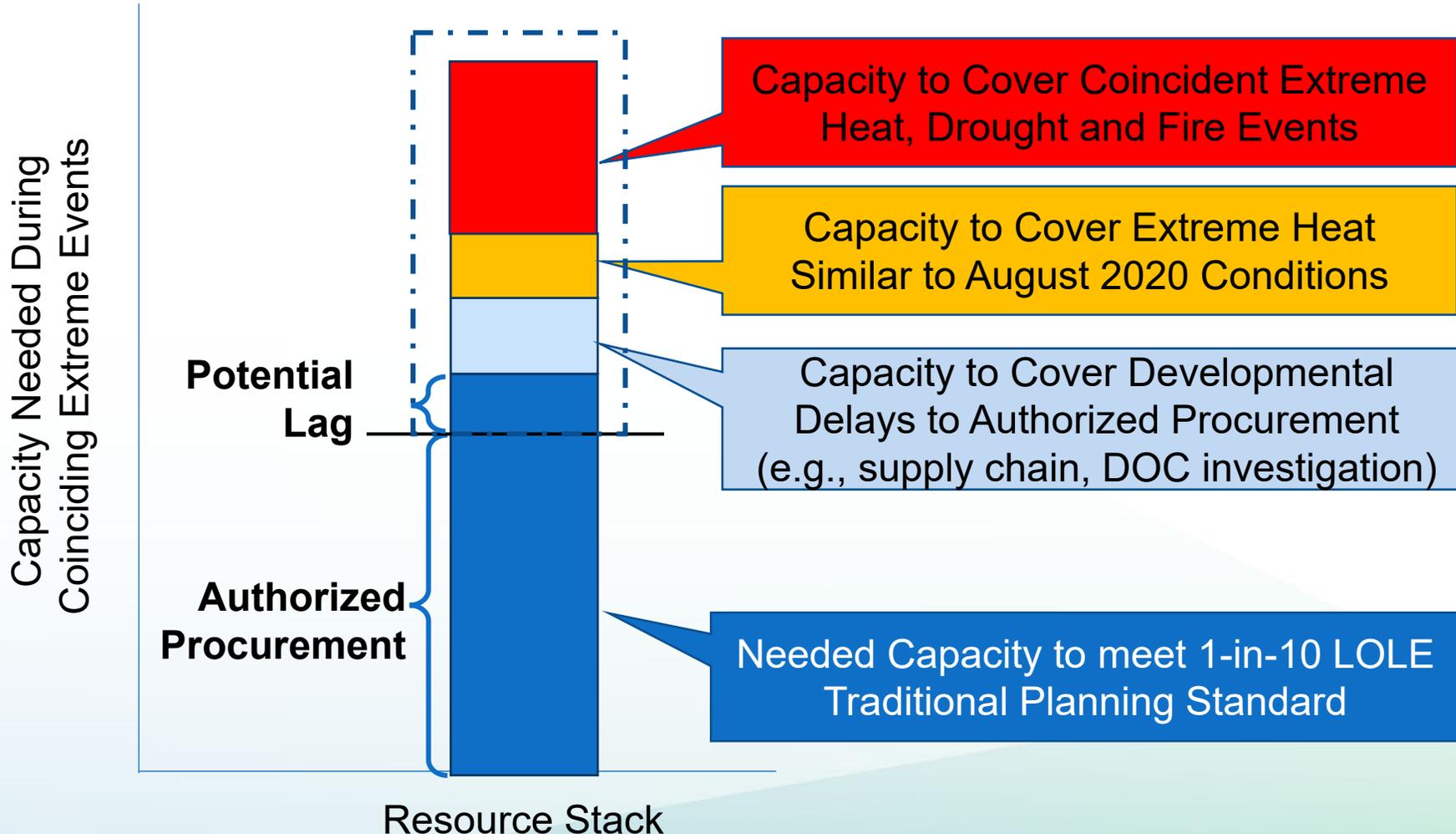


*Events*

- Extreme heat
- Extreme heat
- Extreme drought
- Wildfire
- Supply chain
- Extreme heat?
- Extreme drought
- Supply chain
- Tariff issues
- Wildfire?
- ?



# Reliability Impacts





# Estimated Impact on Energy Reliability

Issue	2022	2025
Lag in incorporation of updated demand forecasts and policy goals in procurement targeting 1-in-10 traditional planning metric	1,700 MWs	1,800 MWs
Extreme weather and fire risks to energy assets not completely captured in a 1-in-10 traditional planning efforts	4,000 - 5,000 MWs	
Project Development Delay Scenarios (estimated)	600 MWs	1,600 - 3800 MWs

***In total the risk in a coincidental situation could be 7,000MW in 2022 & 10,000MW in 2025***



# Contingencies

## Operational

- Coordination with other balancing authorities
- Increasing CAISO Generation Limits (may also require 202C)

## Supply-side

- Temporary generators
- Efficiency improvements

## Demand-side

- Flex Alert
- Shift DWR pumping loads
- Voluntary reductions by large users

Total estimated contingencies: ~2,000 MW



# Strategic Electricity Reliability Reserve

- Demand Side Grid Support Program
- Distributed Electricity Backup Assets Program
- Electricity Supply Reliability Reserve





# Phased Approach

- Solicit initial feedback on proposal
- Prepare draft guidelines & release for comment.
- **Workshop 7/25**
- Bring final guidelines targeted **for approval 8/10**

## Phase 1: Summer 2022

## Phase 2: 2023

- Evaluate lessons learned from 2022.
- Revise guidelines based on lessons learned.
- Ensure infrastructure is in place for full participation.

- Continue to evaluate program effectiveness and address lessons learned.

## Phase 3: On-going



# Workshop Goals

## Goal

Obtain partner and stakeholder feedback on program design to ensure it is effective and meaningful in supporting grid reliability.

## Overview of DSGS Program Development Process

- Proposed program guidelines, released July 20th
- Public comment period through July 29th
- Workshop to solicit input and clarify draft proposed guidelines
- CEC staff to consider comments and revise proposed guidelines
- Post proposed final guidelines (early August)
- CEC consideration of proposed final guidelines (August 10<sup>th</sup>)
- DSGS Program launched



# Agenda

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- **Program Background**
- **Eligibility and Participation Process**
- **DSGS Incentive Structures**
- **DSGS Program Events and Notification Process**
- **Program Payments**
- **Standard Terms & Conditions**
- **Next Steps**
- **Public Comment**



# Virtual Housekeeping

- Webinar conducted remotely via Zoom and is being recorded
- 3 ways to comment
  - Use the “raise hand” feature in Zoom
  - Over the telephone, dial \*9 to “raise hand” and \*6 to mute/unmute your phone line
  - Type your question in the Q&A window
- Limit comment to 3 minutes per commenter or organization per topic
- Written comments due July 29, 2022
  - Submit through the [e-commenting systems \(22-RENEW-01\)](https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=22-RENEW-01):  
<https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=22-RENEW-01>
  - Subscribe to the [DSGS listserv](https://www.energy.ca.gov/programs-and-topics/programs/demand-side-grid-support-program): <https://www.energy.ca.gov/programs-and-topics/programs/demand-side-grid-support-program>



# Program Background





# Authorizing Statute: AB 205

<b>Budget</b>	\$200 million
<b>Purpose</b>	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
<b>Eligibility</b>	All energy customers not eligible to participate in demand response or emergency load reduction programs offered by entities under the jurisdiction of the PUC
<b>Dispatch Loading Order</b>	<ol style="list-style-type: none"><li>1) Demand response and efficiency</li><li>2) Renewable and zero-emission resources</li><li>3) Conventional resources</li></ol>



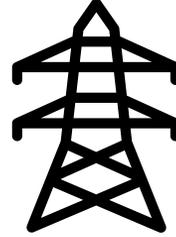
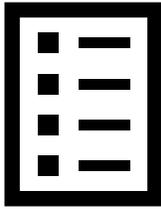
# Design: Policy Goals

- Support grid reliability by enhancing load capacity during extreme events
- Incorporate lessons learned from similar efforts; complement existing programs
- Reduce risk and streamline communication: participation costs and air quality requirements
- Pilot incentive structures that:
  - Increase visibility into resource capacity (ability to plan)
  - Address cost of readying resources without deployment
  - Achieve dispatch loading order





# Demand Side Grid Support Program Overview



Enrollment	Program Event	Payment
<ol style="list-style-type: none"><li>1. DSGS providers (electricity retail supplier) enroll with CEC</li><li>2. Electric customers enroll with DSGS providers to participate</li><li>3. DSGS providers reports participation to CEC</li></ol>	<ol style="list-style-type: none"><li>1. Balancing authority issues an energy emergency alert (EEA)</li><li>2. DSGS providers notify customers</li><li>3. Customers reduce load</li></ol>	<ol style="list-style-type: none"><li>1. DSGS provider pays incentives to customers</li><li>2. CEC reimburses DSGS provider</li></ol>



# Eligibility and Participation Process



# Program Eligibility

- **DSGS Providers:** Retail suppliers, except for investor-owned utilities and community choice aggregators

*PUC section 398.2: “Retail supplier” means an entity that offers an electricity product for sale to retail consumers in California, including an electrical corporation, local publicly owned electric utility, electric service provider, and community choice aggregator.*

- **Participants:** Customers or aggregators that are not:
  - Eligible to participate in CPUC demand response, net energy metering, or emergency load reduction programs
  - Receiving payment or accounting for the same load reduction through any other utility or state program
  - Cogeneration facilities with a power purchase agreement



# Step 1: DSGS Provider Enrollment

## DSGS Provider Application Package

- Name and contact information
- Description of how the DSGS provider will verify load reduction activities and participant eligibility
- Description of how the DSGS provider will implement dispatch loading order
- (Optional) Description of dispatch requirements for resources enrolled in Capacity Payment & Bid Structure outside of California ISO territory
- Chosen administrative cost structure



# Step 2: Participant Enrollment

## Participant Application Package

- Name and contact information
- Information on load reduction resources
  - Types of available resources, including loading order category
  - Address
  - Expected load reduction amount
  - Chosen incentive structure
  - Description of constraints on ability to be available for maximum dispatch length



# Step 3: Initial Report on Participation



## Enrolled Participant Reports

- Include required participant enrollment information
- First due 10 days after DSGS provider enrolls
- Due weekly thereafter to identify changes



# Reports to the California Air Resources Board (CARB)

Purpose	Report Contents
<p>Statute requires CARB, in consultation with the CEC, to develop a plan, including determining the funding amounts allocated after the dispatch of resources participating in the program, to mitigate impacts from these resources</p>	<p>Information on backup generation used:</p> <ul style="list-style-type: none"><li>• Address or GPS coordinates</li><li>• If portable or stationary.</li><li>• Engine size, age, rated horsepower, and federal emissions tier.</li><li>• The type and amount of fuel used</li><li>• The hours of operation of each generator dispatched</li></ul>



Due to CARB and the CEC within 10 days after the end of each month in which a DSGS program event occurred



# **DSGS Incentive Structures**





# Incentive Structures: Options 1 and 2

Participants will select an incentive option for each enrolled resources

	<b>Option 1 Energy Payment Only Structure</b>	<b>Option 2 Standby and Energy Payment Structure</b>
<b>Standby Payment</b>	none	\$250/MWh
<b>Energy Payment</b>	\$2,000/MWh	\$1,750/MWh
<b>Non-Performance Penalty</b>	none	forfeit standby payment



# Incentive Structure Option 3: Capacity Payment & Bid Structure

- Available for non-combustion resources only
- Monthly Capacity Payment:

Month	June	July	August	September	October
\$/MW	\$7,500	\$12,500	\$13,500	\$14,000	\$7,500

California ISO Bidding Requirements	Non-California ISO Requirements	Non-Performance Penalty
<ul style="list-style-type: none"> <li>• Must bid into day-ahead market in 4 consecutive hours between 4–9pm each month.</li> <li>• Bid rate not greater than \$500 per MWh</li> </ul>	<ul style="list-style-type: none"> <li>• DSGS providers may develop comparable dispatch requirements suitable to the operations of the applicable balancing authority that contribute to reliability within the balancing authority area.</li> <li>• Must submit process to CEC for approval.</li> </ul>	<ul style="list-style-type: none"> <li>• If participant delivers less than committed capacity, CEC shall reduce payment by two times the shortfall amount</li> </ul>



# Incentive Structures: Example Monthly Payment Scenarios

	Hours	(1) Energy Payment Only	(2) Standby and Energy Payment	(3) Capacity Payment and Bid*
Standby or Capacity	10	–	10x\$250 = \$2,500	\$14,000
Energy	10	10x\$2,000 = \$20,000	10x\$1,750 = \$17,500	10x\$500 = \$5,000*
<b>Total Payment</b>		<b>\$20,000</b>	<b>\$20,000</b>	<b>\$19,000</b>
Standby or Capacity	10	–	10x\$250 = \$2,500	\$14,000
Energy	0	\$0	\$0	\$0
<b>Total Payment</b>		<b>\$0</b>	<b>\$2,500</b>	<b>\$14,000</b>
Standby or Capacity	0	–	\$0	\$14,000
Energy	0	\$0	\$0	\$0
<b>Total Payment</b>		<b>\$0</b>	<b>\$0</b>	<b>\$14,000</b>

\*Assumptions: September (\$14,000/MW), \$500/MWh CAISO settlement price

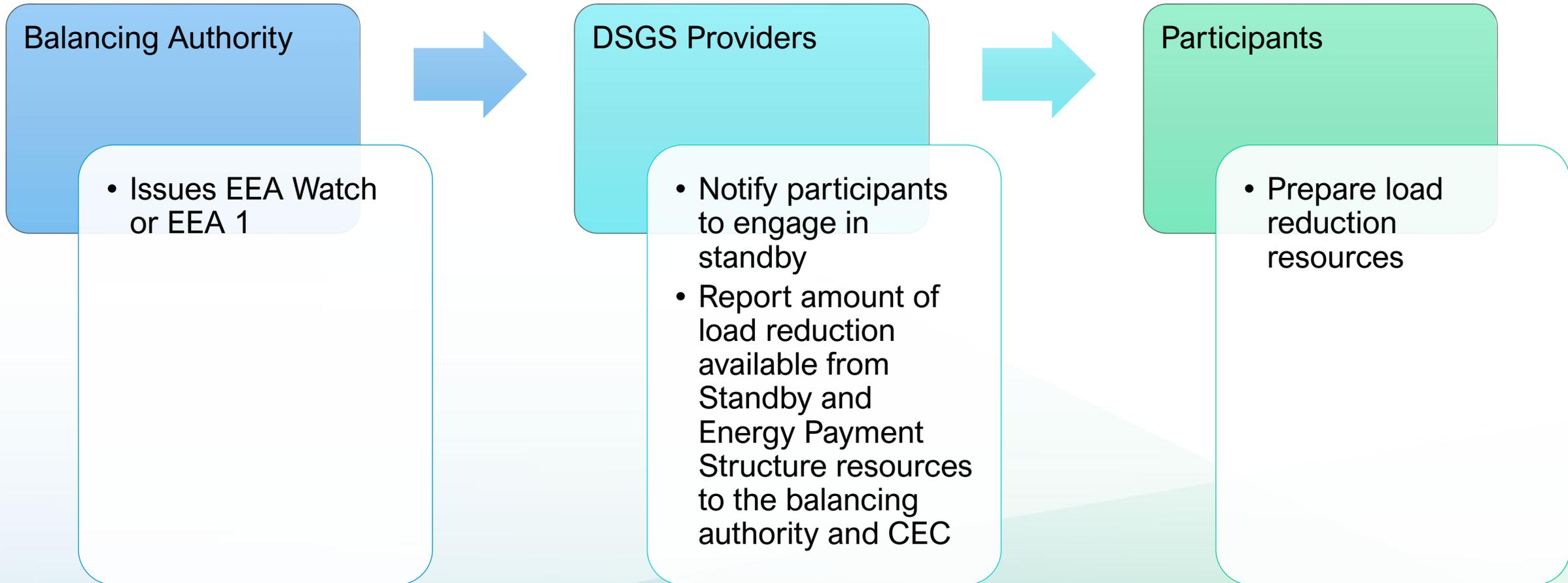


# **DSGS Program Events and Notification Process**



# DSGS Program Events and Notification Process

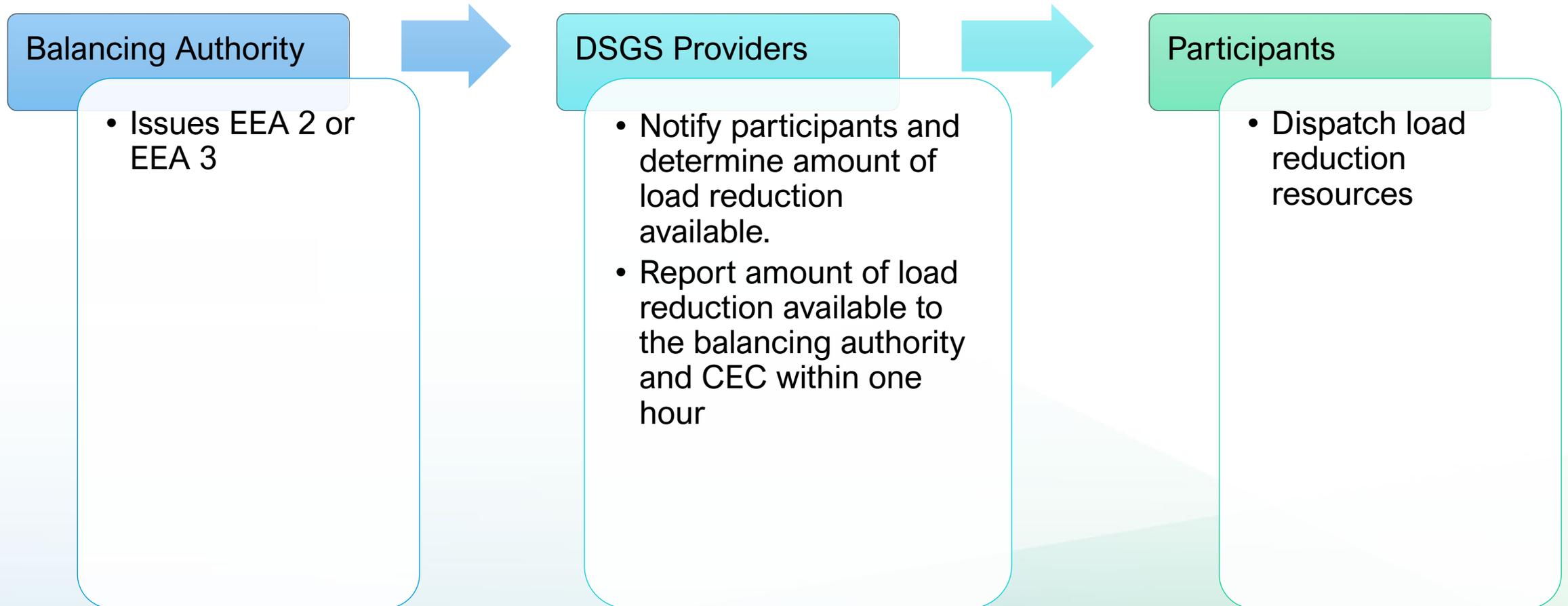
## Standby Period





# DSGS Program Events and Notification Process

## Dispatch Period





# Resource Availability

- 2022: August 1, 2022, through October 31, 2022
- Future: June 1 through October 31 each year
- 4pm-9pm, 7 days a week

	Options 1 & 2 (Energy Payments)	Option 3 (Capacity Payments)
Minimum required dispatch per event	1 hour	1 hour
Maximum required dispatch length	5 hours	4 hours
Maximum number of starts per day	1	1
Maximum required dispatch per month	None	20 hours*
Maximum required dispatch per year	60 hours	60 hours*

\*Only hours where the resource settlement price is at least \$200/MWh count toward these hours.



# Program Payments





# Program Payments

- DSGS providers pay participants directly based on the applicable incentive structure
- DSGS providers receive monthly reimbursement by CEC for eligible incentive payments paid & administrative costs
  - Reimbursement claims due 15 business days after the end of each month
- Administrative costs reimbursed up to \$5 million per year based on selected cost structure:
  - Actual incremental costs and for indirect/overhead costs (not to exceed 10 percent of actual costs).
  - 10 percent of incentive payments provided to participants.



# Standard Terms & Conditions



# Simple Application Process Requires Agreement to Terms & Conditions

- Compliance & Verification
- Enforcement
  - Recovery of Overpayment
  - Fraud and Misrepresentation
  - Noncompliance With Guidelines
- Audits
- Authorized Third Parties
- Records Retention, Disclosure of Information, and Confidentiality
- Nondiscrimination Statement of Compliance
- Drug-Free Workplace Certification
- Americans With Disabilities Act
- Air or Water Pollution Violation
- Public Works
- Independent Capacity
- Third-Party Beneficiary
- Travel and Per Diem
- Flow-Down Requirements



# Next Steps





# Roadmap to DSGS Launch

Target Dates*	Milestone
July 20	<ul style="list-style-type: none"><li>Proposed Draft Guidelines published</li></ul>
July 25	<ul style="list-style-type: none"><li>Public workshop</li></ul>
July 29	<ul style="list-style-type: none"><li>Public comments due</li></ul>
August 1 – 4	<ul style="list-style-type: none"><li>Staff consideration of public comments</li></ul>
August 5	<ul style="list-style-type: none"><li>Post final guidelines for consideration for adoption by the CEC</li><li>Post draft program application and reporting materials</li></ul>
August 10	<ul style="list-style-type: none"><li>CEC consideration of guidelines adoption at business meeting</li><li>Phase 1 Program launch (dependent on date of CEC adoption)</li></ul>

\*Subject to change



# Seeking Feedback (1/2)

- Do the proposed DSGS eligibility requirements ensure the program does not negatively impact pre-existing demand response programs?
- Would it be a challenge to participation if the CARB reporting data is provided at the time of customer enrollment?
- Are the incentive structures and values effective for participation? What modifications should be considered?
- Are there scenarios in which a non-performance penalty would prevent participation?
- Are the program event triggers clear and universal across balancing authorities?



# Seeking Feedback (2/2)

- Are there characteristics of non-CAISO balancing authorities that we have not addressed?
- What's the most efficient method for DSGS providers to keep the CEC informed under the program as they communicate with the balancing authorities and their customers?
- Are the reporting and reimbursement timeframes reasonable?
- Do any of the proposed terms and conditions create a barrier to participation?
- What elements of program design can be improved?



# Questions and Comments



Three ways:

- Use the “raise hand” feature in Zoom
- Over the telephone: dial \*9 to “raise hand” and \*6 to mute/unmute your phone line
- Type your question in the Q&A window in Zoom



# Public Comment and Program Contacts

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- Submit written comments (docket 22-RENEW-01) by July 29, 2022
- Subscribe to the listserv to receive DSGS Program updates

General Email

[dsgs@energy.ca.gov](mailto:dsgs@energy.ca.gov)

Ashley Emery, Branch Manager, Reliability Reserve Incentive Branch

[Ashley.emery@energy.ca.gov](mailto:Ashley.emery@energy.ca.gov)



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# Thank You!