DOCKETED	
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Project Title:	Reliability Reserve Incentive Programs
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Document Title:	Presentation - Distributed Electricity Backup Assets Workshop on Draft Program Guidelines
Description:	*** This document supersedes TN 251627 ***
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DEBA Program Staff Workshop

Draft Distributed Electricity Backup Assets (DEBA) Program Guidelines

August 15, 2023

Virtual Housekeeping

- Workshop is being recorded on Zoom
- Virtual Participation via Zoom or telephone during the Public Comment period:
  - 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
- Written comments due at 5:00 p.m. on August 31, 2023 (22-RENEW-01)
- Submit through the e-commenting system at: https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=22-RENEW-01

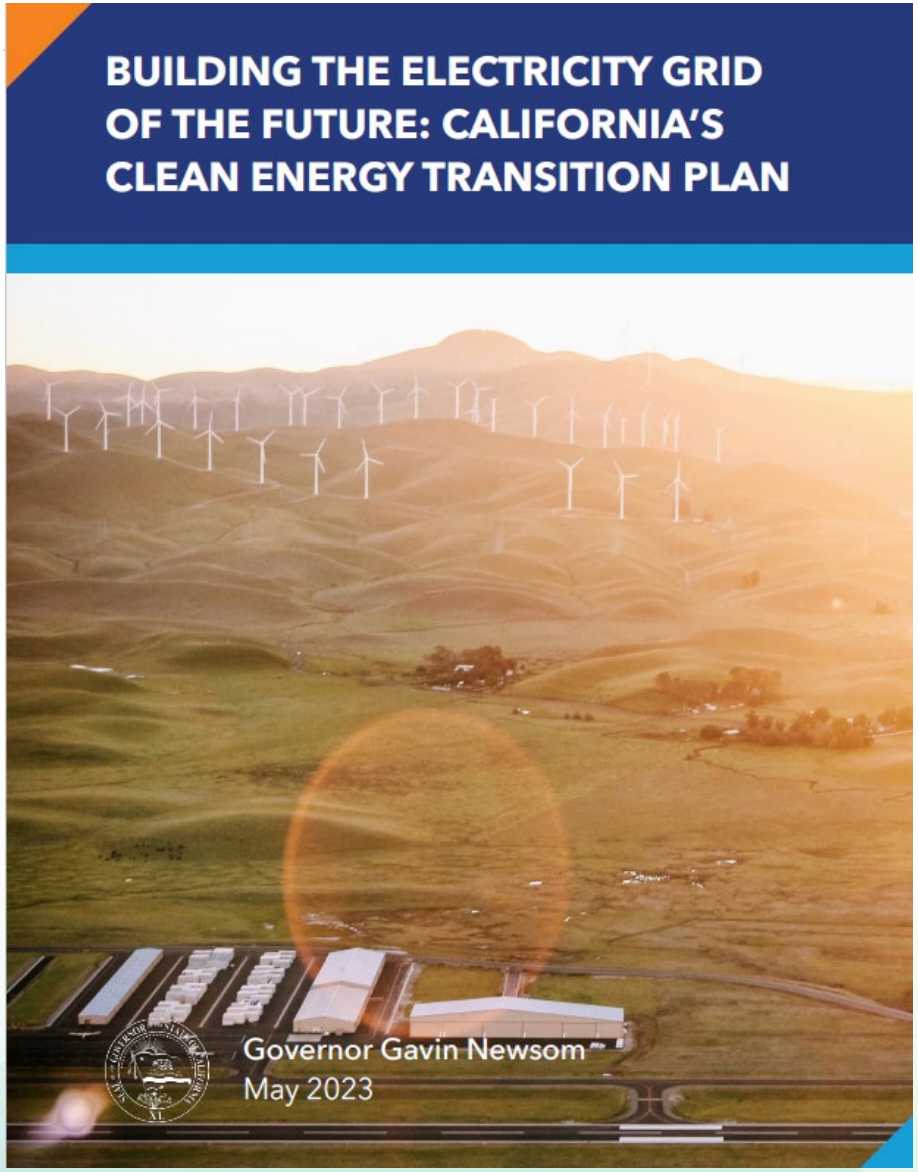
Agenda

- **Welcome and Opening Remarks**
- **Setting the Stage: Strategic Reliability Reserve & DEBA**
- **Overview of Draft DEBA Guidelines**
  - Program Design and Budget
  - Program Eligibility
  - Example Evaluation Criteria
  - Project Implementation Requirements
  - Project Performance and Reporting Requirements
  - Administrative Requirements
- **Potential GFO Provisions**
  - Proposed Payment Structure
  - Example Project Payment Structure
- **Questions for Consideration**
- **Q&A**
- **Public Comment**

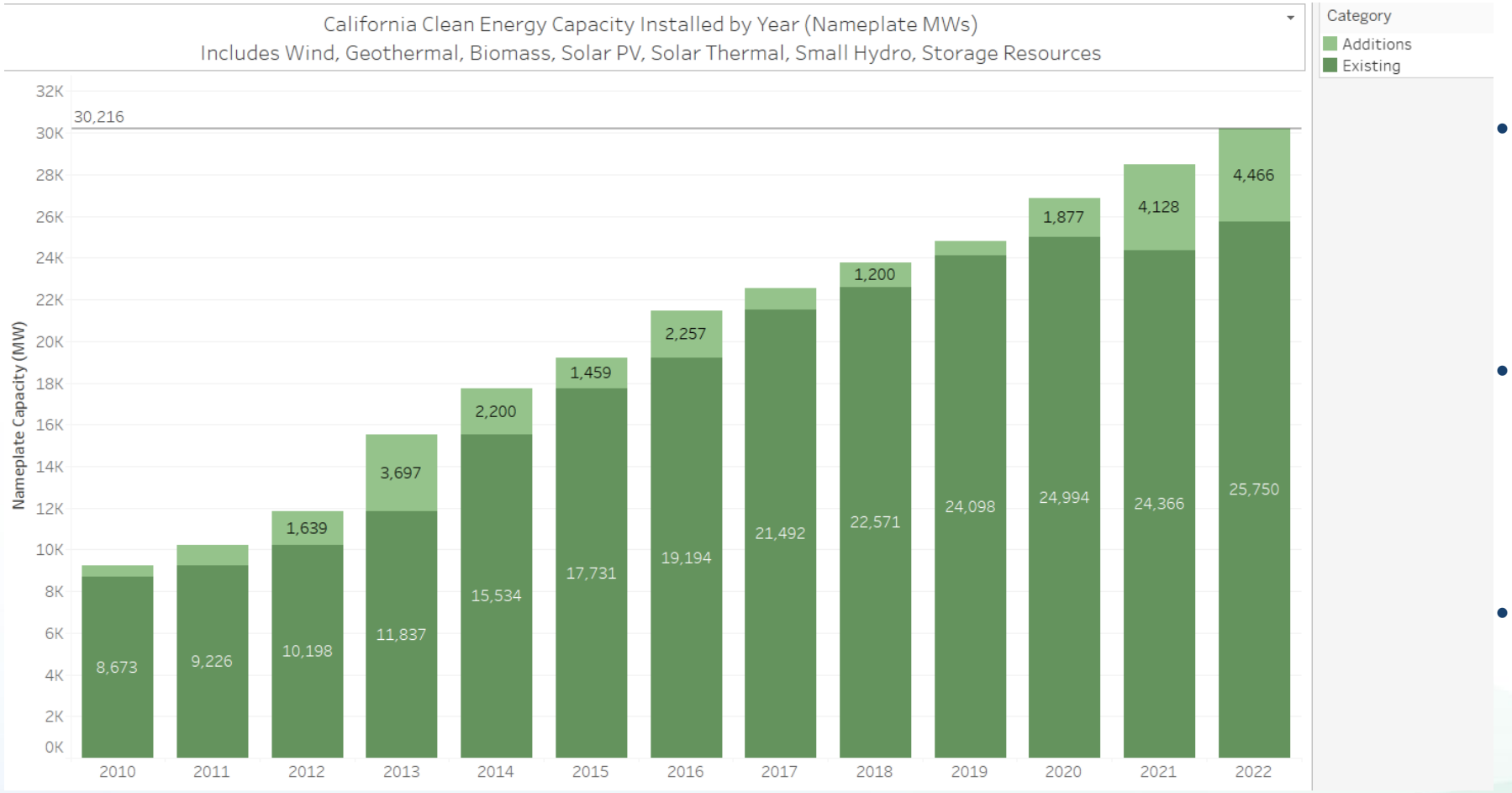
Welcome and Opening Remarks

Transitioning to California's Clean Energy Future

- Cornerstones of California climate change leadership
  - Electrifying our economy
  - Decarbonizing the grid
- Ambitious clean energy goals
- Clean, safe, affordable, and reliable grid of the future
- Climate change is causing unprecedented stress on our grid



Clean Energy Resources - Progress

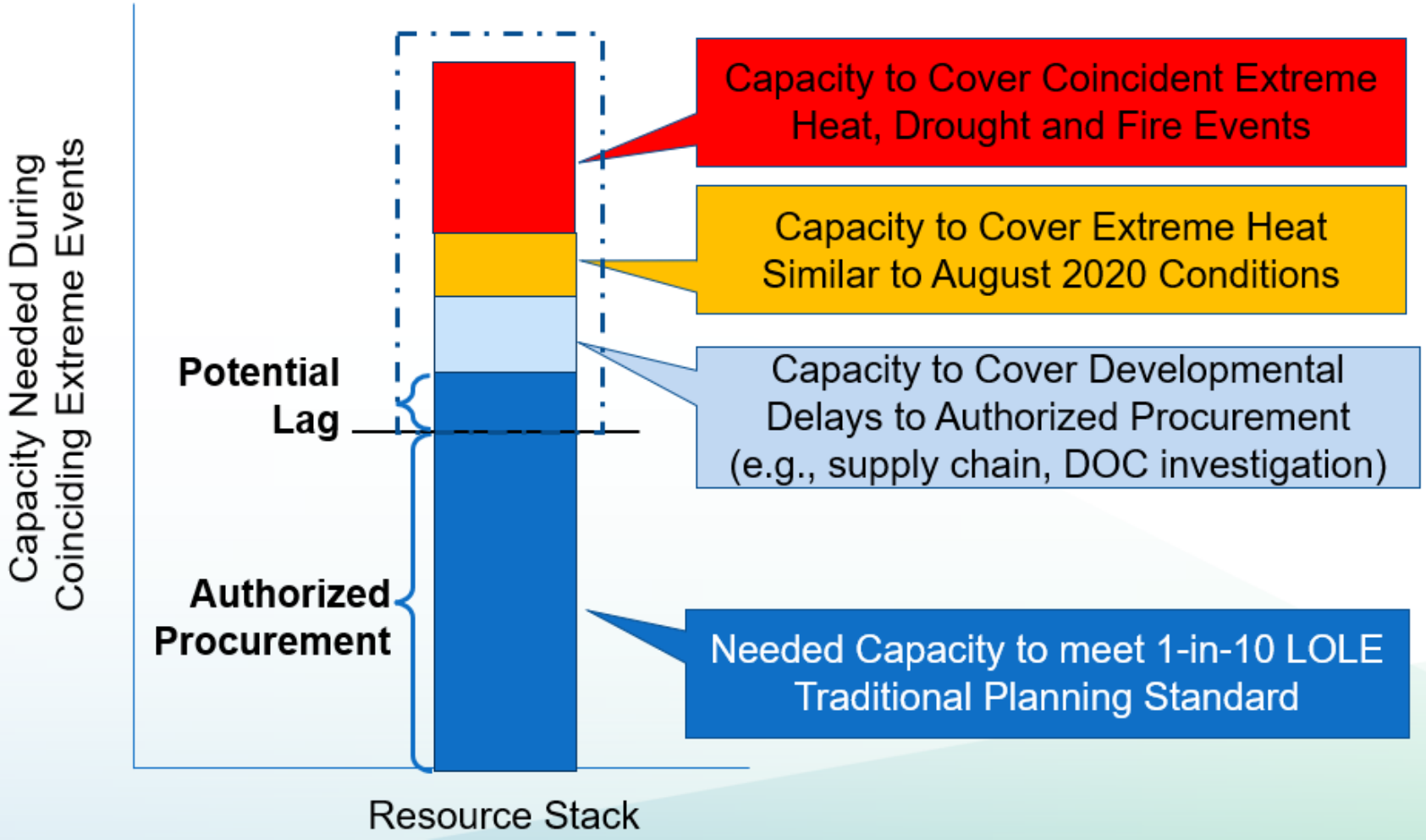


- 59% of electric retail sales were from renewable and zero-carbon energy resources in 2021
- More clean energy capacity developed in 2022 than any other year in the last ten years!
- 5,600 MW of energy storage on the CAISO bulk grid

Actions - Grid Reliability & Clean Energy Transition

- **Improving Grid Planning Processes**
  - Improve accounting for climate change-induced weather variability
  - Improve interconnection & permitting process
- **Scaling Supply & Demand-Side Clean Energy Resources**
  - Increase demand flexibility
  - Accelerate clean energy deployment
- **Preparing for Extreme Events (Contingencies)**
  - Retain existing and construct new assets & procure imports to backstop uncertainties
  - Create emergency demand flexibility opportunities

Reliability Impacts



New CEC Funding: Grid Reliability

Multiyear Budget Agreement

$595 Million
Distributed Electricity Backup Assets and Utility-Scale Assets

$319 Million
Demand Side Grid Support

$7 Million
Energy Modeling

$5 Million
Energy Data Infrastructure and Analysis

$5 Million
DOE Grid Resilience Match

$931 MILLION TOTAL

July 2023

*Includes $24 million from Clean Energy Reliability Investment Plan (CERIP)

Summary of Contingencies

Type	Contingency Resource
Strategic Reliability Reserve (AB 205)	DWR ESSRRP (Long start, short start, imports)
	Demand Side Grid Support
	Distributed Electricity Backup Assets (under development)
CPUC Ratepayer Programs	Ratepayer Programs (ELRP, Smart Thermostats, etc.)
	Capacity at Co-gen or Gas Units Above Resource Adequacy
Non-Program	Balancing Authority Emergency Transfers
	DWR State Water Project
	Thermal Resources Beyond Limits: Gen Limits
	Thermal Resources Beyond Limits: Gen Limits Needing 202c

Total Contingencies up to 2,800 MW

CEC Summer Stack Analysis - Results

- **Overall improved outlook under all scenarios**
- Grid remains vulnerable during widespread heat events
- Hours of most vulnerability are declining and continue to shift to hours after sunset

	Projected September Surplus or Need for Contingencies	
	2022 Projection	2023 Projection
Planning Standards	-1,700	2,300
2020 Equivalent Event	-3,000	-200
2022 Equivalent Event	-7,000	-1,900

Green is surplus, Red is shortfall

Shortfalls do not include coincident catastrophic fire risk

DEBA Program Design and Budget

CEC Reliability Reserve Incentive Programs

	Demand Side Grid Support (DSGS)	Distributed Electricity Backup Assets (DEBA)
Funding	$314 Million	$545 Million ($595 over 5 years)
Incentivized Activities	Use of load reduction resources during extreme events	Purchase of cleaner and more efficient distributed energy assets that will serve as on-call emergency supply or load reduction
Eligibility	Statewide	Statewide
Program Status	Launched 2022, Expanded for Summer 2023	Under Development

DEBA Statutory Requirements (AB 205)

Guidelines

- Developed in consultation with CARB
- Must consider estimated useful life of equipment

Loading Order

- Demand response and efficiency resources
- Renewable and zero-emission resources
- Conventional resources

Funding Conditions

- Must participate as an on-call emergency resource during extreme events
- Power generators must comply with mandatory GHG emissions reporting requirements

DEBA Program Development Plan

Phase 1: Summer/Fall 2023

- Guidelines with basic program parameters
- Grant Funding Opportunities for MW available Summer 2024/2025

Phase 2: Winter 2023–Spring 2024

- Evaluate lessons learned
- Revise guidelines based on lessons learned
- Potential additional Grant Funding Opportunities

Phase 3: On-going

- Continue to evaluate program effectiveness and address lessons learned

DEBA Program Design Overview

- **Two project funding categories:**
  1. **Bulk Grid Assets**
  2. **Distributed Resources**
- **Funding awarded through GFO solicitations**
  - **Technical scoring criteria will be tailored with each GFO solicitation**
- **Funding recipients must participate as on-call emergency resources during extreme events**
  - **Requirements will depend on the projects selected**
  - **Will be tailored with each GFO solicitation**

Anticipated DEBA Funding Allocation

Category	Initial Budget
Bulk Grid Assets Efficiency upgrades, maintenance, and clean capacity additions to existing power generators;	Up to $100M
Distributed Resources[1] New zero- or low-emission technologies, including, but not limited to, fuel cells or energy storage, at existing or new facilities	Up to $445M
Total	**$545M**

- At least 25% of funding to projects in POU territory
- At least 25% of distributed resources funding to projects located in or benefiting disadvantaged communities

[1] This includes CEC administrative costs and funding for CHIRP mitigation program.

Program Eligibility (Chapter 2.A)

DEBA Program Eligibility

Eligible Applicants:

- All public and private entities
- Must intend to own or operate the eligible project

Eligible Projects must:

- Be located in California and interconnected to California's electrical grid
- Provide expected electricity supply or load reduction to California during extreme events.

Examples of Eligible Technologies

Bulk Grid Assets

Efficiency upgrades, maintenance, and capacity additions to existing power generators

- Equipment upgrades
- Clean back-up generation or storage
- Waste heat to power

Distributed Resources

New zero- or low-emission technologies, including, but not limited to, fuel cells or energy storage, at existing or new facilities

- Load flexibility controls, SCADA systems, demand-response aggregation software
- Fuel cells
- Battery storage
- Linear generators
- Microgrids
- Microturbines
- Vehicle-to-grid integration
- Pumped hydroelectric storage
- Combined heat and power systems

Ineligible

The following technologies are ineligible for DEBA Program funding:

- Diesel backup generators, including diesel, biodiesel, and renewable diesel
- Standalone variable renewable resources without paired storage (e.g. solar, wind, etc.)

Example Evaluation Criteria (Chapter 2.B)

Bulk Grid Assets GFO: Example Technical Scoring Criteria

Resource Longevity	• Anticipated useful life of the resources in relation to the state's climate and air quality requirements.
Capacity and Availability	• Total amount of additional power (in MW and MWh) that the project would provide to the state. • Maximum hours available for dispatch during peak load (4 p.m. to 10 p.m.). • A measurement and verification plan that describes how performance during an emergency event will be metered, documented, and reported to the CEC for verification.
Cost	• Cost-effectiveness of dollar value of DEBA funding per MW of additional power. • Proposal provides a detailed budget proposal, including the dollar value of DEBA funding per MW of additional power.
Readiness	• Estimated project completion date. • Detailed workplan. • Anticipated risks and barriers, including interconnection, permitting, or supply chain delays.

Distributed Resources GFO: Example Technical Scoring Criteria

Loading Order	• Project is higher in the loading order established in Assembly Bill 205.
Resource Longevity	• Anticipated useful life of the resources in relation to the state's climate and air quality requirements.
Capacity and Availability	• Total amount of load reduction or additional power the project would provide. • Maximum hours available for dispatch during peak load (4 p.m. to 10 p.m.). • A measurement and verification plan that describes how performance during an emergency event will be metered, documented, and reported to the CEC for verification.
Cost	• Cost-effectiveness of dollar value of DEBA funding per MW of additional power. • Project is supported by federal funding. • Proposal provides a detailed budget proposal.
Readiness	• Estimated project completion date and a detailed workplan. • Anticipated risks and barriers, including interconnection, permitting, or supply chain delays.
Equity	• Located in or benefits a disadvantaged community. • Project replaces or displaces fossil-fueled generation.
Co-benefits	• Benefits beyond energy system reliability, including critical infrastructure resilience (emergency services, potable water, wastewater).
Portfolio Diversity	• Enhances the diversity of projects participating in CA's Strategic Reliability Reserve.

Project Implementation Requirements (Chapter 2.C)

Project Implementation Requirements

All award recipients must:

1. Participate in a kickoff meeting to establish expectations, roles and responsibilities, accounting procedures, and reporting requirements.
2. Submit periodic progress reports to ensure the recipient is complying with the task schedule specified in the grant agreement.
3. Provide required deliverables as specified in the scope of work.
4. Submit periodic project progress reports for CEC review.

- A **Commission Agreement Manager (CAM)** will be assigned to the project and will coordinate with funding recipients on agreement development and provide project oversight.

Project Performance and Reporting Requirements (Chapter 2.D)

Project Performance and Reporting Requirements

- Must participate as an on-call emergency electrical grid resource for the state during extreme events.
- Specific performance and reporting requirements will be tailored with each GFO solicitation.
- **Bulk Grid Assets** required to comply with mandatory GHG emissions reporting requirements of the California Global Warming Solutions Act of 2006.

Disbursement of Awarded Grant Funds (Chapter 2.E)

Disbursement of Grant Awards

- Awarded funds will be disbursed after project completion.
- CEC anticipates withholding a portion of each grant award to be disbursed upon demonstrated performance during emergency events.
- Disbursement approach and reporting requirements will be tailored with each GFO.

Administrative Requirements (Chapter 3)

Administrative Requirements

- Prevailing Wage
- Authorized Third Parties
- Audits and Access to Facilities
- Record Retention
- Use and Disclosure of Information and Records and Confidentiality
- Enforcement

Potential GFO Elements

Proposed DEBA Payment Structure: Bulk Grid Assets (Rolling Basis)

Award Amount	Up to **50%** of **total project costs,** scaled by completion date: • 2024: 50% • 2025: 35% • 2026: 25%
Award Payment Structure	• 50% of total award disbursed upon commercial operations date • 50% remainder disbursed over 5-year period contingent on emergency performance
Emergency Performance Requirements	• Annual performance reports at end of program season demonstrating availability and performance during emergency events and any designated test events. • **May**, **but not required to**, participate in Resource Adequacy (RA) market • Facilities committing installed capacity to RA market receive remainder of award. • Power may not be under contract to be sold out of state May–October.

Proposed DEBA Payment Structure: Distributed Resources Challenge Grant

Award Amount	**Projects Eligible for Federal ITC** • Up to **50%** of **total project costs** • 30% of Federal tax credits (up to) • 20% committed financing **Projects Not Eligible for Federal ITC** • Up to **80%** of **total project costs** • 20% committed financing
Award Payment Structure	• 25% of total award disbursed upon placed in service date • 75% remainder disbursed over 5-year period contingent on emergency performance
Emergency Performance Requirements	• 15% of award amount paid at conclusion of Summer if performed during all emergency events and any designated test events. • May participate in RA during non-program months (November–April). ○ Otherwise forfeit 15% performance-contingent payment

Example of Distributed Resource Payment Structure

Project: New Solar Microgrid with Battery Storage

%	$	
100%	$20 million	Total Project Costs
30	$6 million	Federal Tax Credits
20	$4 million	Applicant Cost Share
50	$10 million	Potential DEBA Award

%	$	
100%	$10 million	DEBA Award
25	$2.5 million	After Placed in Service
15	$1.5 million	After Summer Year 1
15	$1.5 million	After Summer Year 2
15	$1.5 million	After Summer Year 3
15	$1.5 million	After Summer Year 4
15	$1.5 million	After Summer Year 5

Questions for Feedback

1. Are the proposed GFO payment structures effective and adequate to spur development of a project and ensure participation during an emergency event? Should alternative approaches be considered?
2. How much time does your organization need to respond to a GFO?
    - What internal process and timetable is associated with applying for funds and entering agreements?
    - Are there specific administrative elements that could be included to streamline the application process? e.g., Letter of Intent
3. Does your potential project qualify for Federal tax incentives, such as the production tax credit or investment tax credit?

Target Timetable for DEBA

Target Dates (Subject to Change)	Milestone
August 2023	• Draft Guidelines released & public workshop held • Public Comments Due (**Aug. 31**)
September 2023	• Draft Guidelines revised
October 2023	• Guidelines approved at CEC Business meeting (**Oct. 18**) • First GFO solicitation(s) released following Guidelines approval
November 2023	• Pre-application workshop for GFO held • Q&A submissions for GFO due
December 2023	• First GFO applications due

Q&A

Public Comment

- Zoom
  - Use the “raise hand” feature to make verbal comments
- Telephone
  - Dial *9 to raise your hand
  - *6 to mute/unmute your phone line. You may also use the mute feature on your phone
- When called upon
  - Your microphone will be opened
  - Unmute your line
  - Spell your name and identify your organization, then start your comment

Written Comments

- Written Comments due 5:00pm on August 31, 2023

- Comments may be submitted directly to DEBA docket (22-RENEW-01) through the e-commenting system at: https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=22-RENEW-01

Thank You!

Additional Questions: DEBA@energy.ca.gov

Public Comment: Docket No. 22-RENEW-01