

# CESA Monthly

---

# Policy Update Call

August 24, 2023



# Agenda

- Executive Director Intro
- Market Development Forum
- Policy & Regulatory Updates
- Member Q&A





# Mission

---

The mission of CESA is to make energy storage a mainstream resource to advance a more affordable, efficient, reliable, safe, and sustainable electric power system for all Californians.

# Our CESA Board Members



# Our CESA Members





14<sup>th</sup>  
ANNUAL

# MARKET DEVELOPMENT FORUM 2023

## The Leading Edge of Storage

Join 100+ CESA industry leaders for premier in-person business networking opportunities and an insightful, educational program on safety, permitting, LDES, IRP, resource adequacy, financing, interconnection, and more.

**October 17 – 18th in Berkeley!**

**CESA**  
CALIFORNIA ENERGY STORAGE ALLIANCE



# Policy, and Regulatory Updates

# Recurring Working Group Calendar

Working Group	Schedule	Key Issue Areas
California Independent System Operator (CAISO)	Biweekly (Monday, 11am-12pm PST)	<ul style="list-style-type: none"> <li>Energy storage enhancements</li> <li>Price formation and modifications</li> <li>Interconnection enhancements and deliverability method modifications</li> </ul>
Distributed Energy Resources (DER)	Monthly (Wednesday, 9:30-10:30am PST)	<ul style="list-style-type: none"> <li>DER capacity and energy programs, incl reliability</li> <li>Multiple-use applications, high DER future</li> <li>Microgrid policy/tariffs, value of resiliency</li> <li>Distribution deferral and interconnection</li> </ul>
Emerging Technology and Long Duration	Monthly (Tuesday, 9-10am PST)	<ul style="list-style-type: none"> <li>Solutions to barriers impeding new technologies</li> <li>EPIC and other grant opportunities</li> <li>Long-duration energy storage issues</li> </ul>
Integrated Resource Planning (IRP)	Monthly (Thursday, 1-2pm PST)	<ul style="list-style-type: none"> <li>IRP modeling and scenarios (including SB 100)</li> <li>Emerging/long-duration storage procurement</li> </ul>
Resource Adequacy (RA)	Monthly (Thursday, 1-2pm PST)	<ul style="list-style-type: none"> <li>Central Buyer (CB) implementation</li> <li>Energy &amp; hourly capacity related reforms</li> </ul>
Safety	Bimonthly (Tuesday of odd months, 9-10am PST)	<ul style="list-style-type: none"> <li>Progress update on CESA safety initiatives</li> <li>Safety codes &amp; standards</li> </ul>



# Policy Update Agenda

- Resource Adequacy (RA)
- California Independent System Operator (CAISO)
- Integrated Resources Plan (IRP)
- Safety
- Distributed Energy Resources (DER)
- Emerging Technology and Long Duration Storage



# Resource Adequacy (RA) Updates

---

- CPUC RA Implementation
- CAISO RA Implementation

# Resource Adequacy (RA) – CPUC Implementation

## R.21-10-002 involves two tracks:

- **Implementation Track:** PRM/LOLE refinements; LCR/FCR needs; and other “time-sensitive” issues
- **Reform Track:** Implementation workstreams for Slice-of-Day (SOD) framework
  - D.23-04-010 adopted details to SCE’s 24-hour slice framework for test year purposes

## Key updates:

- **Commission issued Final Decision on 6/29**
  - CalCCA requested rehearing on 7/26 (CCA expansion)
  - Shell/AReM requested rehearing on 8/4 (ESP expansion)
  - Joint DR parties requested rehearing on 8/4 (RDRR, TLF adder elimination, PRM adder elimination, PDR availability expansion, third-party DR derates)



## Resource Adequacy (RA) – CAISO Implementation

**The CAISO: establishes resource deliverability/net qualifying capacity (NQC); processes RA/Supply plans; and procures back-stop capacity for deficient LSE capacity procurement and significant events.**

**CAISO resource adequacy tariff applies to all load-serving entities in California, not just CPUC-jurisdictional entities.**

### **Key updates:**

- **RA Working Group discussing consensus position to prepare for CAISO implementation of slice-of-day**
  - Seeking regulatory alignment
  - Seeking clear direction on MW quantity expected to be on supply plans
  - Seeking evaluation of CAISO's tariff compliance determinations under slice-of-day
  - Seeking evaluation of CAISO's CPM determinations under slice-of-day

# California Independent System Operator (CAISO) Updates

- Energy Storage Enhancements
- Price Formation Enhancements
- Interconnection Process Enhancements 2023

# Energy Storage Enhancements (ESE)

**Proposed modification to the state-of-charge calculation to account for potential energy charge/discharge from providing regulation down/up**

$$SOC_{i,t} = SOC_{i,t-1} - \left( EN_{i,t}^{(+)} + \eta_i EN_{i,t}^{(-)} + ATRU_t RU_{i,t} - ATRD_t \eta_i RD_{i,t} \right) \frac{\Delta T}{T_{60}}$$

**Workshop held August 3 to discuss original ESE proposal, PG&E proposal, and DAME envelop proposal**

## Key Updates:

Provided written comments on workshop

- All proposals are problematic and require more discussion and should not rush for a solution for Fall release
- CAISO should analyze effectiveness of 50% rule in addressing regulation availability
- CAISO should evaluate changes in the AGC signal to return resource to initial SOC to prevent causing the problem
- MSC highlighted that core issue is regulation is not re-optimized with changes settled at real-time price. CAISO should address core issue and identify bidding/modeling enhancements to enable operators to better manage SOC.



# Price Formation Enhancements

## Price Formation Enhancements initiative will explore several topic area

- Phase 1: Scarcity pricing, BAA-level market power mitigation, fast-starting pricing (analysis)
- Phase 2: Fast-start pricing (policy), extended flexible ramping product
- Phase 3: multi-interval optimization + storage, replacement reserves + preparing for nodal ancillary services

## Weekly working group process started August 3.

## Key Updates:

Working group process moving extremely slow in developing guiding principles and problem statements.

Phase 1 - CESA supports operating reserve demand curve, additional real-time bidding flexibility, and analysis of shorter real-time BCR horizons

ESE comments highlighted that Phase 3 nodal AS may be needed for scarcity pricing and that multi-interval optimize may be duplicated to planned ESE initiative. Opportunity to consolidate and accelerate.

# Interconnection Process Enhancements

## Interconnection Process Enhancements (IPE) 2023 seeks to address

- Track 2 – Broader reforms for cluster 15 and beyond
  - Managing Interconnection Request (IR) Intake
    - Focus on transmission zones consistent with IRP
  - Managing Projects Already in the Queue

## Key updates:

- Additional workshops held
  - July 24 continued stakeholder presentations focused on managing the queue
  - CAISO held survey to assess viability criteria
  - August 1 reviewed survey results and CAISO feedback on proposals and preliminary straw proposal
- FERC issued Order No. 2023. CAISO compliance discuss TBD
- CESA did not submit comments on workshop
  - Viability criteria difficult to reach consensus position
  - Wait until formal CAISO proposal

# Integrated Resource Planning & Procurement (IRP) Updates

- Integrated Resource Planning (IRP)
- New Permitting Rulemaking (OIR)



# Integrated Resource Planning (IRP)

The IRP process optimizes for least-cost portfolio to reach goals for GHG emissions, local pollutants, DAC impacts, reliability, RPS, etc.

Each LSE files own IRP in even years while modeling is done in odd years

## Scope of IRP includes:

- Planning track to assess modeling inputs, assumptions, resource valuation, and analysis of cost, GHG emissions, air pollutants, and reliability
- Procurement track to evaluate reliability issues at system level and to direct procurement as needed

## Key updates:

- **Busbar Mapping workshop and informal comments**
  - Recent CAISO Transmission Plan Approvals not included in its transmission capability input into the busbar mapping process
- **SB100 Kick-Off Workshop on 8/22**
  - CESA will need to engage in 3 out of 5 the pathways CEC plans to model, because there are major DER storage and LDES implications
- **Expecting final IRP Inputs & Assumptions Report in September**
  - IRP Working Group to evaluate new PNNL cost figures that could be included in the IRP

# New Permitting Rulemaking (OIR)

The Commission issued an Order Instituting Rulemaking (OIR) to update its General Order 131-D addressing the siting of electric transmission lines, substations, and related facilities.

Main driver is to effectuate purpose of Senate Bill (SB) 529, which is to allow electric utilities to use Permit to Construct path for all electric transmission/substation facilities.

## Relevant Scope of OIR:

- Permitting requirements for electric utility-owned installation of battery storage

## Key updates:

- Commission issued Scoping Memo on 7/31
  - **Phase 1** will consider changes necessary to conform to SB 529 and updates to outdated references
    - Proposed decision by October 29
    - Expecting to need only a cursory review to ensure no scope creep
  - **Phase 2** will consider all other changes including treatment of battery storage systems
    - Staff proposal in Q1 2024
    - IRP Working Group to begin preparing consensus position/strategy

# Safety Updates

---

- Safety legislation
- CESA local government engagement

# Safety, Standards, & Circular Economy



- **The CESA Safety Working Group met on Tuesday, July 25th. The next Working Group meeting will be Tuesday, September 19th**
- **Safety Legislation - SB 38 (Laird) BESS Emergency Response Plans**
- The bill is in the Assembly Appropriations Committee and will be acted on next week
  - The bill includes a new requirement that each BESS in the state have an emergency response and evacuation plan that covers the premise and plans must be submitted to the CPUC.
  - CESA is neutral on the bill after our concerns were addressed.
- **Local Government Engagement on Permitting and Safety**
  - CESA is actively engaging with the local government trade associations (CSAC, RCRC, League of Cities) to discuss permitting and safety issues. CESA will participate and present at a 8/30 webinar to talk about CESA and BESS Permitting



# Safety, Standards & Circular Economy



- **UP NEXT: The Safety Working Group will be discussing the next steps for the Safety Series at our next meeting on 9/19**
  - The Committee will reconsider options for developing materials related to BESS Safety
  - We are soliciting feedback on interest and types of mediums CESA members would be interested in pursuing
- **UP NEXT: The Safety Working Group will receive an update on the National Electrical Code (NEC) and hear from members on key code issues**

# Distributed Energy Resources (DER) Updates

---

- Demand Energy Backup Assets Program
- Updates: Dynamic Rate Pilots and Self Generation Incentive Program

# Distributed Energy Backup Assets (DEBA)

**The CEC issued its draft guidelines for the DEBA program on August 11.**

**\$545M allocation** (over 5 years) - for deployment incentives for clean DERs that would serve as on-call emergency supply or load reduction. 25% of funding allocated to projects in POU territory; at least 25% of funding reserved for DERs located in or benefitting DACs.

## **Eligible DEBA projects:**

- *Bulk Grid* - efficiency upgrades, maintenance & capacity additions to existing power generators (including but not limited to addition of storage) **(up to \$100M)**
- *DER* - new zero or low-emission technologies at existing or new facilities - load control (SCADA) & aggregation software, battery storage, fuel cells, linear generators, microgrids, microturbines, V2G, battery-backed EV charging, pumped hydro, CHP **(up to \$445M)**

**Ineligible projects:** diesel BUGs, standalone solar/wind

**Solicitation process:** Grant Funding Opportunity - <http://www.energy.ca.gov/contracts>. CEC staff will hold pre-application workshop(s). Design of each GFO not necessarily the same.

**Program months & hours:** May 1 - October 31; 4-10 pm

# Distributed Energy Backup Assets (DEBA)

DEBA awards proposed as a combination of upfront and payment for performance during emergency events.

## Possible payment structure (DERs)

- *Projects eligible for federal ITC:* up to 50% of total project cost funded by DEBA (mix of upfront and performance payment); 30% tax credits; 20% applicant cost share
- *Projects not eligible for federal ITC:* up to 80% total project cost funded by DEBA (mix of upfront and performance payment); 20% applicant cost share.
- Upfront DEBA payment = 25%; Performance payments over 5 years = 75%

## Timeline (2023):

- August 31 – Comments on Draft Guidelines
- Sept - Draft Guidelines Revised
- Oct - Guidelines approved at CEC 10/18 business meeting; 1st GFO released
- Nov - Pre-application workshop held
- Dec - first GFO application due.



## SGIP & Dynamic Rates

**Dynamic Rates:** CESA remains engaged in development of a dynamic rates framework at the CPUC. The CPUC issued a proposal on 8/16 to expand existing dynamic rate pilots – extend existing VCE agricultural pilot by 3 years and add additional customers and ag uses; create a new 3-year pilot for commercial customers and residential customers on electrification rates in PG&E; and, extend SCE's dynamic rate pilot (which expressly includes energy storage and EVSE)

**SGIP:** CESA filed comments on 8/1 in response to ALJ Ruling, focused on easing administration of the program with a reduced scope given \$280M budget allocation for low-income customers.

# Emerging Technology Updates

- **EPIC - Grid Modernization Solicitation Feedback**
- **EPIC – Strategic Goals Workshop**
- **Upcoming events and workshops**

# California Energy Commission Workshop



**July 21 Workshop** – CEC to solicited feedback on proposed grid modernization research funding concepts 2026-2030 Electric Program Investment Charge (EPIC) Program (EPIC 4 Investment Plan Topics 10-12).

## **ET WG Draft Feedback to grid modernization funding, to be submitted August 25:**

1. Grid modernization will require modeling of economic dispatch over multi-day dispatch periods. LDES demonstrations will benefit the process of designing such a market in EPIC 5.
2. CESA supports technology roadmaps including the need for a variety of duration products beyond the current market signals.
3. Research needs for valuing energy storage are substantial, including resiliency services of LDES and synthetic inertia.
4. Asset aggregation demonstration that provide transmission services will benefit research

# California Public Utilities Commission

---

- **Strategic Goals Workshop on August 16**
  - CPUC is planning program-wide goals to evaluate innovation investments and benefits
- **Equity in R&D Workshop August 17**
  - Discussed how Equity should be considered and integrated into subsequent Pathway workshops.
- **Senate Bill 100 CEC Kickoff Workshop occurred on August 22**
  - Purpose to develop the 2025 Joint Agency SB 100 Report, address current state of industry, and to provide modeling concepts and results. Summary of workshop to be delivered and discussed in the September ET WG.



- **CPUC Draft I&A Report:** Updated PNNL flow battery cost and performance update expected in Q3 2023.
- August 22 - Lawrence Berkeley National Labs, Grid Resiliency Planning and Coordination Across Public Entities - Information Session ([Event Registration](#))
- September 12 - Staff Workshop for Community Energy Resilience Investment (CERI) Program Development ([Event Registration](#))
- September 13 – Web Training for Energy Storage Enhancements Track 2 Pre-Market Sim Training (Scheduled as tentative [CAISO Calendar](#))
- October 3 - EPIC Annual Symposium ([Event Registration](#))

Ask us anything!



# Next Policy Update Call

---

September 22, 2023



# Contact Us

---

**For inquiries, questions and more, contact:**

Policy: Rachel McMahon – [rachel@storagealliance.org](mailto:rachel@storagealliance.org)

Membership: Elizabeth Cardwell – [elizabeth@storagealliance.org](mailto:elizabeth@storagealliance.org)



**CESAA**

The letters 'CESAA' are rendered in a large, bold, sans-serif font. Each letter is filled with a detailed, close-up photograph of a green leaf. The leaf's veins are clearly visible, and several clear water droplets of varying sizes are scattered across its surface, some reflecting light. The background of the entire image is a solid, deep blue.

**CALIFORNIA ENERGY STORAGE ALLIANCE**