

# CESA Monthly --- Policy Update Call

May 12, 2023



# Agenda

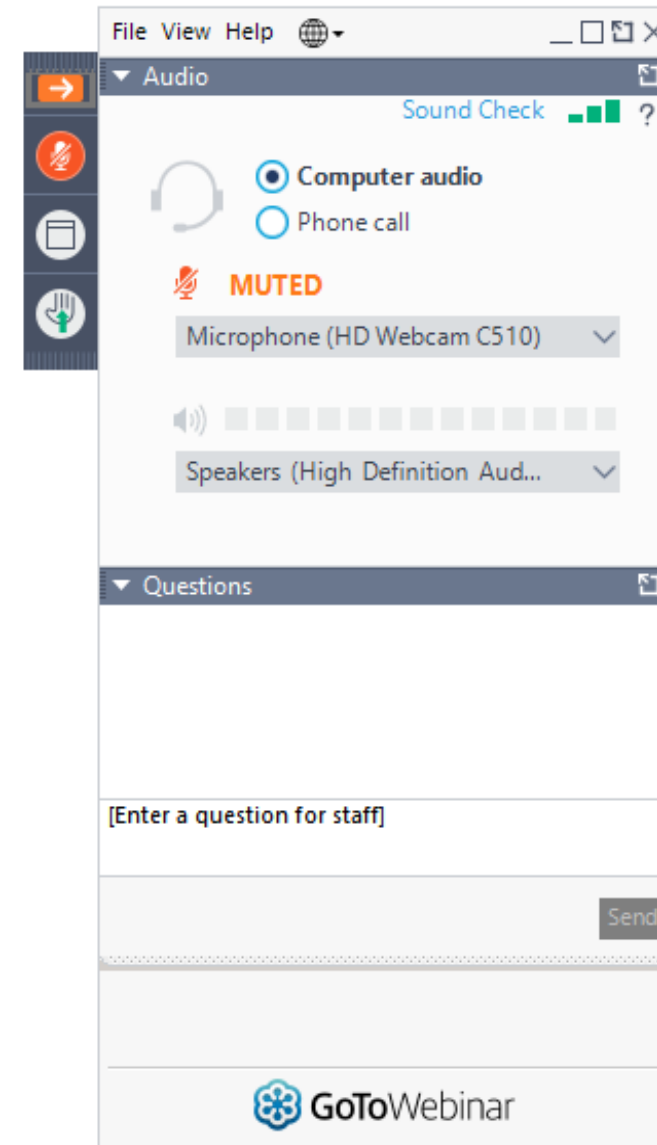
- Key Organizational Updates
- Business Development Opportunities
- California Policy Updates
- Member Q&A





# Housekeeping

- All participants are in listen-only mode
- Webinar is being recorded and notes circulated after call
- Use the “Raise Hand” feature to be queued up to speak
- Q&A conducted through “Questions” panel in menu
- Pause for Q&A



# Mission

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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





# Interim Executive Director Update

- **Cautiously optimistic for Summer 2023 reliability:** Addition of over 3,000 MW of storage from 9/1/2022 through 6/1/2023, record-high hydro conditions, and Strategic Reliability Reserve programs and investments – but fears remain with widespread extreme heat events
- **Governor has proposed central procurement mechanism for large, long lead-time and diverse resources:** Many questions raised on the need, repercussions, and criteria for such a mechanism by Department of Water Resources (DWR)
- **Governor May Revise Budget expected today:** Revenue expected lower – so whether to cut or raise more money
- **Policy leaders and lawmakers seeking interconnection solutions:** Many bills touching on proactive transmission and interconnection timelines, while CAISO focusing on alignment of processes and “priority zones”
- **Finalizing product design of imbalance reserves:** High-value service that could be provided by energy storage, but late-arriving changes raise concerns (e.g., bid cap)
- **Increased focus and activity in DER space:** Load-shifting goals, DSGS/DEBA programs, electrification studies, etc.
- **Federal watch:** FERC Final Rule on Generator Interconnection expected soon, EPA published proposed regulations on fossil fleet, IRA domestic content guidance released today

# CESA PAC

- We need your help to raise funds for the CESA PAC!
- 2023 is an **especially important year** for the CESA PAC to:
  - Build relationships with newly elected officials
    - All 80 state Assembly seats and 20 Senate seats were up for election in 2022
  - Support key champions
  - Address upcoming LDES and SGIP budget issues

Please consider  
donating between  
**\$250 - \$9,100**  
to the CESA PAC!



# Reminder: Update CESA Contact List

If you have **any new team members** who should receive CESA communications and working group access, have them complete this form:

<https://www.storagealliance.org/cesa-portal-request-access#join>

Please let Shannon McGuire know if you have **any former team members** who have departed your organization!



# CESA Information Sharing Tools

# California Storage Market Snapshot

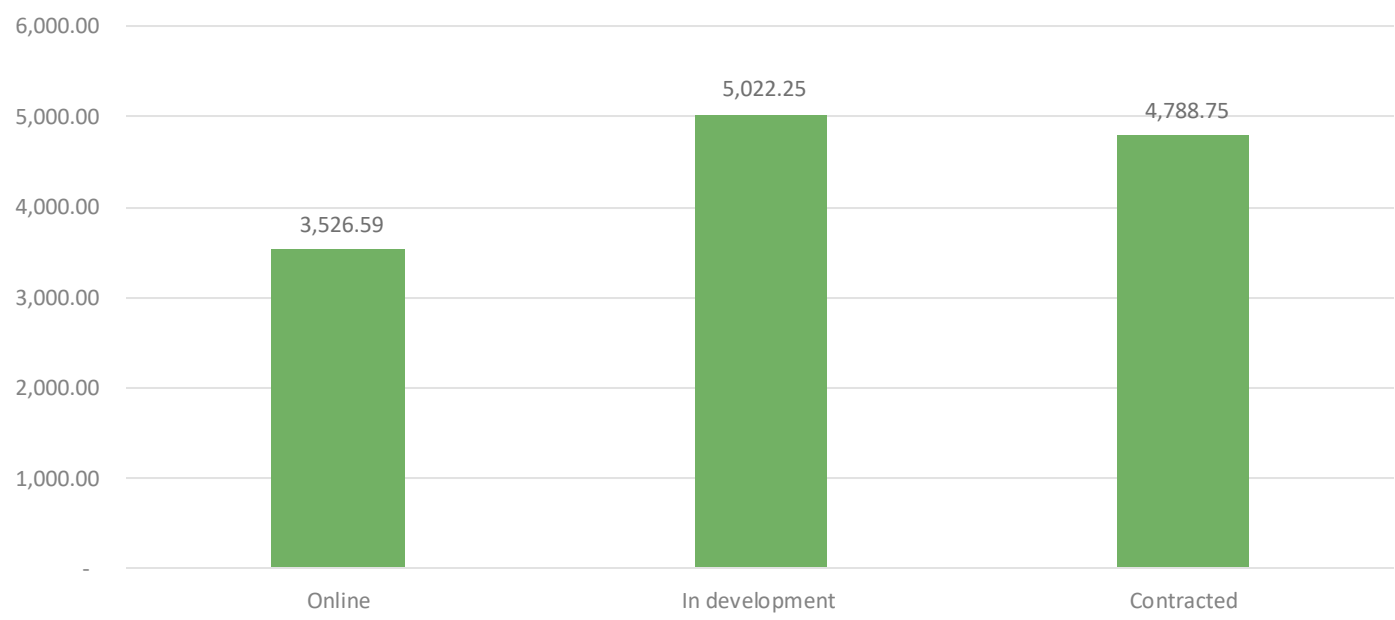


Energy storage capacity procured by LSE (MW)	
LSE	MW
Southern California Edison	4,684.73
Pacific Gas & Electric	3,539.70
Clean Power Alliance	1,120.50
San Diego Gas & Electric	945.66
Los Angeles Department of Water & Power	431.01
East Bay Community Energy	518.75
Marin Clean Energy	320.00
Central Coast Community Energy	429.13
San Diego Community Power	215.50
Clean Power SF	140.00
Valley Clean Energy Alliance & Redwood Coast Energy Authority	130.50
California Community Power	119.00
Silicon Valley Clean Energy & Monterey Bay Community Power	105.00
Silicon Valley Clean Energy	97.63
Sonoma Clean Power	80.00
Imperial Irrigation District	60.00
Desert Community Energy	50.00
Redwood Coast Energy Authority	45.00
California Choice Energy Authority	15.00
San Jose Clean Energy	10.00
Riverside Public Utilities	7.85
Sacramento Municipal Utilities District	4.87
Redding Electric Utility	3.60
Glendale Water & Power	3.50
City of Santa Clara Utilities	3.25
City of Anaheim Public Utilities	3.15
Pasadena Water & Power	0.74
Moreno Valley Utilities	0.08
Lancaster Choice Energy	0.03
Colton Public Utilities	0.02
Alameda Municipal Power	0.01
Burbank Water & Power	-

As of May 12, 2023, there are **13,338 MW** of active energy storage procurements since 2010

SGIP has enabled the installation of an additional **610 MW** of customer-sited electrochemical storage

Chart 1. Energy storage procurement since 2010 by status (MW)





# Business Development Opportunities



Procurement Obligations in September NQC MW						
LSE	2023	2024	2025	2026 (LLT)	2025 (Zero-Emission)	Total
PG&E Bundled	400	1,201	300	400	500	2,302
PG&E Direct Access (Aggregated)	77	230	58	77	96	441
Clean Power SF	31	93	23	31	39	179
East Bay Community Energy	73	218	55	73	91	418
King City Community Power	0.3	1.0	0.3	0.3	0.4	1.9
Marin Clean Energy	58	173	43	58	72	332
Monterey Bay Community Power	51	152	38	51	63	291
Peninsula Clean Energy	38	113	28	38	47	217
Pioneer Community Energy	12	37	9	12	15	70
Redwood Coast Energy Authority	7	20	5	7	8	38
San Jose Clean Energy	43	129	32	43	54	248
Silicon Valley Clean Energy	41	124	31	41	52	237
Sonoma Clean Power	25	74	18	25	31	141
Valley Clean Energy Alliance	8	23	6	8	10	44
SCE Bundled	687	2,060	515	687	858	3,948
SCE Direct Access (Aggregated)	90	271	68	90	113	520
Apple Valley Choice Energy	3	8	2	3	3	16
Baldwin Park	3	8	2	3	3	15
Pomona	5	14	3	5	6	26
Clean Power Alliance	118	354	89	118	148	679
Desert Community Energy	6	18	4	6	7	34
Lancaster Clean Energy	6	19	5	6	8	37
Pico Rivera Innovative Municipal	2	7	2	2	3	14
Rancho Mirage Energy Authority	3	9	2	3	4	18
San Jacinto Power	2	5	1	2	2	10
Santa Barbara Clean Energy	2	7	2	2	3	13
Western Community Energy	15	46	12	15	19	89
SDG&E Bundled	63	188	47	63	78	361
SDG&E Direct Access	26	79	20	26	33	152
Clean Energy Alliance	7	20	5	7	8	38
San Diego Community Power	99	297	75	99	124	570

## Active/ongoing:

- **SVCE/3CE 2023 BESS Bidding Optimization Software RFI:** Proposals due 5/12
- **SCPPA 2023 RE & ES Solutions RFP:** Responses due 6/29
- **Section 48C Round 1 Allocation Credit:** Funding opens 5/31, concept papers due 7/31
- **Southern California Edison (SCE) New Home Energy Storage Pilot (NHESP):** Applications open May 22, 2023 through November 2024.

# Policy, Market, and Regulatory Updates

# Recurring Working Group Calendar

Working Group	Schedule	Key Issue Areas
<b>California Independent System Operator (CAISO)</b>	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>
<b>Distributed Energy Resources (DER)</b>	Monthly (Wednesday, 9:30-10:30am PST)	<ul style="list-style-type: none"> <li>• Updates on SGIP, DR, NEM permitting guidebook</li> <li>• Multiple-use applications, high DER future</li> <li>• Microgrid policy/tariffs, value of resiliency</li> <li>• Distribution deferral and interconnection</li> </ul>
<b>Emerging Technology and Long Duration</b>	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>
<b>Integrated Resource Planning (IRP)</b>	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>
<b>Resource Adequacy (RA)</b>	Biweekly (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>
<b>Safety</b>	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

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



# California Independent System Operator (CAISO) Updates

- Energy Storage Enhancements (ESE)
- Price Formation Enhancements (PFE)
- Interconnection Process Enhancements (IPE)
- Transmission Planning Process (TPP)

# CAISO Interconnection

## CAISO 2023 Interconnection Process Enhancements (IPE) Issue Paper and Straw Proposal published (3/9) and stakeholder conference held on 3/13.

- Track 1 proposed immediate adjustments to schedule of QC 15 and proposed a separate track for Long-Lead Time (LLT) resources.
- CAISO proposes various reform ideas for Track 2, including limits based on TPD availability/plans, screening criteria, auctions, PPA/shortlisting, as-needed application window
- New initiative on deliverability reform expected in early Q2 of 2023

## Key updates:

**545 interconnection requests were submitted during recent QC 15 application window (4/3 - 4/17).**

**2023 IPE Track 1 Final Proposal was published by CAISO on 4/13 and included:**

- CAISO to move forward with delay to QC 15 schedule.
- Revised due date for publishing QC 14 Phase 2 study reports (revised date: Jan. 31, 2024; originally Nov. 24, 2023).
- Separate study track for LLT resources was removed from Track 1 final proposal.

CESA submitted comments (4/24) on the Track 1 Final Proposal (Track 1 Final proposal will be presented to the Board of Governors on 5/17).

**Next Steps: Track 2 Straw Proposal** will be posted by the CAISO on 5/25 and stakeholder meeting will be held on 5/31.



# Transmission Planning

## 2022-2023 CAISO Transmission Plan Draft published on April 3rd.

- Developed through the annual Transmission Planning Process (TPP).
- The Transmission Plan is developed to identify and plan solutions needed to meet the future needs of the ISO transmission grid.

**The Transmission Plan takes a more strategic and proactive approach to resource, procurement, transmission planning and interconnections.**

## Key updates:

**2022-2023 Transmission Plan based on state projections that CA needs to add more than 40 GWs of new resources over next 10 yrs.**

- **CAISO has identified 46 transmission projects needed throughout CA.**
  - 24 Reliability-Driven Projects identified (\$1.76 billion)
  - 22 Policy-Driven Projects identified (\$7.53 billion)
  - No solely Economic-Driven Projects recommend.
- **The 46 projects results in a total of \$9.3 billion in transmission infrastructure investments.**
- **A Final Study Plan is expected May 12<sup>th</sup>**

# Day-Ahead Market Enhancements

## Day-Ahead Market Enhancements (DAME) Initiative aims to reduce the burden on the real-time market to resolve imbalance and net load forecast uncertainty:

- Creates the Imbalance Reserve (IR) product
- Enhances the Residual Unit Commitment (RUC) process through the creation of the Reliability Capacity (RC) product
- Introduces Market Power Mitigation for both new products

## Key updates:

- A Revised FP was posted 4/6 and an Addendum was issued 4/19, comments were submitted 4/24
- The ISO's Addendum no longer recommends the hybrid approach for the design of the IR Requirement in the CAISO BAA as it could lead to high prices that exceed the operational benefit of the product
- Instead, the ISO will implement an IR demand curve for all EDAM BAAs, including the CAISO BAA, and cap the imbalance reserve up and down demand curve values at \$55
  - CESA has submitted comments opposing this last-minute addition

# Integrated Resource Planning & Procurement (IRP) Updates

- Integrated Resource Planning (IRP)
- SB 100 Study
- LA100 Advisory Group
- Energy Storage Procurement Applications
- Renewable Portfolio Standard (RPS) Program

# 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:**

- D.23-02-040, issued 2/28, required procurement of a total of 4 GW of NQC and modified requirements for procurement of long lead-time resources from D.21-06-035 by automatically postponing them from June 1, 2026, to June 1, 2028
  - CESA and other parties are considering a Petition for Modification (PFM) of D.23-02-040 to allow for a potential 2030 extension if good-faith efforts are demonstrated
- Inputs and assumptions (I&A) process for 2023 IRP cycle expected to commence late May, early June

# Emerging Technology Updates

- CEC LDES Program
- SB 846 Clean Energy Reliability Investment Plan



# CEC Long Duration Energy Storage Modeling

**On Tuesday, May 9th the California Energy Commission (CEC) hosted a workshop to present the results of E3's final analysis as part of the grant agreement "Assessing Long-duration Energy Storage Deployment Scenarios to Meet California's Energy Goals"**

- This work was funded under the Electric Program Investment Charge (EPIC)
- This final analysis assesses the roles and cost targets for long duration energy storage (LDES) to meet California's energy goals in a varied set of scenarios through 2045

## **Key updates:**

- Significant role for LDES under deeper decarbonization scenarios
- LDES operates throughout the year, providing intra-day through seasonal energy arbitrage
- LDES can serve much the same role as gas, enabling additional in-state gas retirement
- LDES supports operations during energy-constrained conditions
- LDES significantly reduces renewable curtailment in highly renewable grids
- LDES makes portfolios more robust to inter-annual renewable variability

# Resource Adequacy (RA) Updates

- Central Procurement Entity (CPE) implementation
- Energy requirements and limitations
- Local Capacity Requirements (LCR)
- Behind-the-meter (BTM) export capacity

# Resource Adequacy (RA) – Reform

**D.22-06-050 adopted SCE’s 24-hour slice framework, with modifications**

**Phase 3 of 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

**Key updates:**

- On March 3, the Commission issued a Proposed Decision on the RA Reform Track
- A Revised PD adopting CESA’s recommendations on paired resources was issued 4/5 and unanimously approved 4/6
  - No action on multi-day storage or deliverability considerations for the resources meeting the standalone storage sufficiency verification
- In DAME, the CAISO has put forth a proposal to introduce a three-year “opt-in” transitional RA true-up mechanism whereby entities can choose to have the CAISO settlement system true-up specific IR and RC payments that overlap with RA capacity
  - CESA has opposed this measure noting that it mistakes IR for RA

# Distributed Energy Resources (DER) Updates

- Legislative Update (SGIP bills & budget)
- Final Decision adopting Microgrid Incentive Program (MIP)
- CEC's proposed new Demand Side Grid Support (DSGS) guidelines
- CEC's proposed Load Shift goal
- Update - Rule 21 notification-only pilot and advice letter
- Update - Demand Flexibility docket
- Update - 2023-2027 DR Applications

# Legislative Update (SGIP)

- **In 2022, the Legislature adopted changes to have 70% of incentives for low-income residential customers who install new solar and ESS or new ESS, and 30% to residential customers who install new ESS:**
  - The Governor’s Office proposed in January that only the low-income residential portion of SGIP be funded (\$630M). The Governor’s May Revise (to be published today) likely to reflect January proposal.
- **SB 851 (Stern) would establish a block grant structure for SGIP on behalf of eligible low-income residential households:**
  - Broadened eligibility to mobile ESS (V2X) - max 5% allocation
- **AB 1664 (Friedman) would establish a block grant structure as well for SGIP for Indian tribes and local POUs on behalf of eligible low-income residential households:**
  - Similar additional goals of grid reliability, resiliency for AFN population, emissions reduction via electrification, and environmental pollution reduction in DACs



# Microgrid Incentive Program (MIP) - D.23-04-034

- **Final Decision adopted on April 6th - no changes from Proposed Decision.**
  - Adopts implementation rules for the MIP, a \$200M program focused on community microgrids in disadvantaged communities vulnerable to grid outages.
  - Clarifies that the IOUs shall open their first application window no later than 9 months after the publication of the MIP Handbook
  - Direct making the MIP Handbook available on utility websites within 180 days of the issuance of the decision, providing more time (90 days) as initially proposed
  - Clarify the IOUs' ability to submit a Tier 2 advice letter to seek further extension of the COD and to provide further time for MIP implementation for the Handbook and Microgrid Operating Agreement.
  - Establishes a 24 month operational deadline from execution of the MOA.
  - Adjust “stages” of the MIP process where “Stage 0” involves MIP community outreach and add “Stage 3” to reflect the need for interconnection and microgrid islanding studies
- **Citing reasons already stated in the decision, the CPUC declined to:**
  - Remove the points cap
  - Provide technical assistance funds upfront
  - Modify the special regulatory asset treatment of customer-side assets (i.e., not full rate of return)

# DSGS Program Revised Guidelines

- **DSGS Providers:** All LSEs, Federal Power Marketers, 3rd party aggregators (w/ permission from POU/CCAs, and with written notification to IOUs)
- **DSGS Participants:** All POU and Federal Power customers; CCA and IOU customers that - have BUGs, participate in Options 2 or 3; water agencies, and not enrolled in ELRP.
- **DSGS Program Season:** May 1 - October 31
- **Participation Options:**
  - **Option 1** - Standby and Energy Payment
  - **Option 2** - Incremental Performance Option
  - **Option 3** - Market-aware BTM storage
- **Program Hours:** No limits, under any option

# DSGS Option 3 – Market Aware BTM Storage



- **CAISO and non-CAISO resources are eligible**
- **Customer Requirements:** Minimum 2 hour battery; 1 kW min capacity; Must follow **all** tariff and interconnection agreement provisions.
- **VPP Requirements (aggregate):** 500 kW min capacity; coordinated dispatch of at least 2 hours; same LSE service territory, same nominated duration.
- **Availability & Dispatch:** 4 - 10 pm; 7 days/week; dispatch at DA LMP \$200/MWh; 35 events/season; min 1 event/month
- **Measurement:** At inverter or submeter. The resource may serve on-site load.

	\$/kW-mo		
Month	4-Hour	3-Hour	2-Hour
<i>May</i>	\$9	\$8.10	\$6.75
<i>June</i>	\$9.30	\$8.37	\$6.98
<i>July</i>	\$16.80	\$15.12	\$12.60
<i>August</i>	\$18	\$16.20	\$13.50
<i>Sept</i>	\$19.20	\$17.28	\$14.40
<i>October</i>	\$10.50	\$9.45	\$7.88
<b><i>Season</i></b>	<b>\$82.80</b>	<b>\$74.52</b>	<b>\$62.10</b>

# CEC Load Shift Goal (SB 846) - Overview

Categorizes resources/programs into the following categories, with the following policy recommendations:

- **Load modifying** - *TOU & dynamic rates (3-4 GWs)*
  - Support dynamic pricing; encourage alternative rate and programs to incent load shifting; provide incentives for load shift technologies paired with dynamic rates; information infrastructure deployment; adopt standards to enable appliance operations to be shifted; complete deployment of advanced AMI
- **RA (aka supply side)** - *PDR, RDRR, DRAM, IOU Programs (2 GWs)*
  - Incentive-based capacity valuation for SSSR; centralized DR procurement process; adder on wholesale market revenue for SSSR; reform availability rules and requirements; EM&V on SSSR load impacts
- **Emergency & incremental** - *ELRP, DSGS, BUGs (2 GWs)*
  - Pilot compensating for incremental capacity during extreme conditions, pilot BTM storage in emergency & incremental programs, pilot short duration load shift, reassess role of emergency resources in planning



## Rule 21 Notification-Only Pilot ALs - Awaiting Resolution

### **CESA filed a protest to the Advice Letter on April 10th, focused on the following arguments:**

- The notification-only pilot should be given more time (18 months) given its tremendous potential to streamline interconnection and deployment
- The IOUs already reported technology set-up costs associated with the pilot
- Modifications are needed to increase participation rate
- Allow for exporting NEM retrofits to participate
- Relax developer project cap and experience requirement.

### **The IOUs jointly filed a response to protests on April 17th.**

- Support parties' recommendation to extend the pilot by 18 months.
- Do not support expanding the developer caps (10 projects) or reducing the audit percentage (up to 20%), asserting insufficient evidence.
- Do not support relaxing the developer experience cap (at least 20 non-export projects)
- Do not agree with expanding eligibility to include retrofits to existing NEM (exporting) systems

## Income Graduated Fixed Charge for Residential Ratepayers

**Context:** Budget Trailer bill from 2022-23 session required the CPUC to consider whether to adopt an income-graduated fixed charge for residential customers, no later than July 2024. This directive is in response to legal arguments surrounding a fixed charge in the NEM docket, which was rejected.

- E3 hired as a consultant, to be managed by PG&E (Approved 4/27) to develop a spreadsheet tool to inform income-graduated fixed charge proposals by parties. Cost - <\$425K.
- Initial proposals were filed via testimony, with a wide range of proposed fixed charges for residential customers. IOU proposal is below. CESA likely to file reply testimony in June.

Income Bracket	Criteria	PG&E IGFC (\$/month)	SDG&E IGFC (\$/month)	SCE IGFC (\$/month)
1	CARE (<= 100% FPL)	\$15	\$24	\$15
2	All Other CARE/FERA	\$30	\$34	\$20
3	Non-CARE/FERA <= 650% FPL	\$51	\$73	\$51
4	Non-CARE/FERA > 650% FPL	\$92	\$128	\$85

# CESA's Filed Comments on 2023-2027 DR Applications

- **ELRP should be extended through 2027:**
  - Concerns about conflict with RA are not major because it targets different customer groups, no penalties are in place, export compensation is available whereas it is not available in other DR programs, alternatives to market integration (see burden of Share My Data process) is helpful for increased customer/device participation, and effective PRM is still in place
  - It is premature to make large modifications to the program, and if any considered, it should focus on increasing customer participation
  - Minimum dispatch hours should be maintained, if not increased, and flexibility could be incorporated by, e.g., reducing minimum event length
- **SCE's CBP Elect options should allow aggregators to choose a dispatch trigger:**
  - This is similar to what other IOUs have, and it allows for aggregators to reflect their economic marginal costs
- **Various storage-focused pilots should be approved:**
- **Cost effectiveness requirements (TRC of 1.0) should be waived for this application:**
  - We agree with PG&E's request since updates to cost-effectiveness protocols are being considered in this same proceeding

# Q&A

Ask us anything!





# Next Policy Update Call

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June 9, 2023



# Contact Us

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

Shannon McGuire

[smcguire@storagealliance.org](mailto:smcguire@storagealliance.org)

CESAA

CALIFORNIA ENERGY STORAGE ALLIANCE