CALIFORNIA

Efficiency + Demand Management

COUNCIL

Advancing Our Clean Economy

EE + DR/DER Call

July 1, 2025

REC

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Today's Agenda

CALIFORNIA Efficiency + Demand Management COUNCIL

- Legislative update
- Resolution E-5351 on EE portfolio metrics
- 6/25 CEC Load Shift Goal workshop
- Quick hits

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Legislative Update

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Governor Newsom yesterday finalized his budget that builds and delivers for Californians, signing into law groundbreaking and transformative housing reforms – including sweeping CEQA exemptions — to boost housing production and infrastructure statewide and improve affordability for all.

It includes AB 130 Housing Budget Trailer Bill - with the provisions from AB 306

This bill, from October 1, 2025, to June 1, 2031, inclusive, prohibits a city or county from making changes that are applicable to residential units to the above-described building standards unless a certain condition is met, including that the commission deems those changes or modifications necessary as emergency standards to protect health and safety.

.https://www.gov.ca.gov/2025/06/30/governor-newsom-signs-into-law-groundbreaking-reforms-to-build-more-housing-affordability/

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SENATE BILL **NO. 500**

Introduced by Senator Stern

February 19, 2025

An act to amend Section 25402.10 of the Public Resources Code, ~~and to amend Section 68 of Chapter 38 of the Statutes of 2023,~~ relating to ~~energy, and making an appropriation therefor, to take effect immediately, bill related to the budget.~~ *energy.*

LEGISLATIVE COUNSEL'S DIGEST

SB 500, as amended, Stern. Energy: ~~benchmarking.~~ *usage data.*

~~(1)Existing~~

Existing law requires each utility, on and after January 1, 2017, to, upon the request and authorization of the owner, owner's agent, or operator of a covered building, as defined, deliver or otherwise provide aggregated energy usage data for a covered building to the owner, owner's agent, or building operator, or to the owner's account in the ENERGY STAR Portfolio Manager, as specified.

This bill would authorize a utility to satisfy that requirement by delivering or otherwise providing aggregated energy usage data to the owner's account in any alternative system or tool approved by the State Energy Resources Conservation and Development Commission.

~~(2)Existing law, the Budget Act of 2023, requires the commission to use $10,000,000 from a specific appropriation to enhance its outreach and enforcement activities to increase compliance by covered building owners with the Building Energy Benchmarking Program and to improve the quality of the data collected by the program, and authorizes the commission to adopt guidelines or other standards for the benchmarking program, as specified.~~

~~This bill would, instead, authorize the commission to adopt, amend, or rescind those guidelines or other standards. By expanding the purposes for which those moneys may be used, the bill would make an appropriation.~~

~~(3)This bill would declare that it is to take effect immediately as a bill providing for appropriations related to the Budget Bill.~~

DIGEST KEY

Vote: majority Appropriation: ~~yes~~*no* Fiscal Committee: yes Local Program: no

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Resolution E-5351 on EE portfolio metrics

- On 6/17, the CPUC issued Resolution E-5351 which approves, with modifications, joint SDG&E Advice Letter 4438-E/3299-G (w/ PG&E, SCE, SoCalGas, MCE, 3C-REN, BayREN, I-REN, SoCalREN) to:
- Background
  - D.23-06-055 adopted 13 Equity Indicators and 25 Market Support Indicators, many of which were recommended in the CAEECC's Equity Metrics WG (EMWG) and Market Support Metrics WG (MSMWG); the decision requested that CAEECC re-engage these WGs to develop recommendations to clarify the adopted indicators

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Resolution E-5351 on EE portfolio metrics (cont.)

- High-level details
  - Adopts modified purposes for all indicators and metrics in the EE portfolio:
    - Understanding the impact of energy efficiency programs by segment and sector across PAs
    - Ensuring accountability of dollars spent in Resource Acquisition, Equity, Market Support, and Codes & Standards segments
    - Enabling PAs to make adjustments to energy efficiency programs based on indicator and metric data
    - Development and execution of goals for Equity and Market Support segments; and
    - Enabling the Commission to provide clear data, dashboards, and other materials to decision-makers and stakeholders to support their understanding of energy efficiency performance
  - Removes or revise certain indicators and metrics
  - Converts several metrics into indicators
  - Provide guidance on new reporting requirements

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6/25 CEC Load Shift Goal workshop

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- On 6/25, CEC held a workshop on the Load Shift Goal (LSG) to provide insights into load flexibility implementation
- SB 846 requires CEC to adopt a LSG and review it in each IEPR cycle; 7 GW was adopted in 2023, first report (issued in 2023) being updated under the 2025 IEPR
  - Report objectives are 1) report on progress on load flex in CA, and 2) stakeholder feedback on strategies
- Workshop attended by commissioners from the CEC, CPUC (Pres. Reynolds and Houck), CAISO (Anna McKenna), and the CARB (Rachel Gold); key opening comments included:
  - McAllister: Good opportunity to collaborate across agencies; encouraged by how the conversation is evolving and that agencies becoming more informed
  - Reynolds: Thinking about ways to reduce reliance on fossil generation at lowest cost; concerned about unpredictable and longer-term heat events
  - Houck: Need to match demand to generation; lots of progress being made in load flex proceeding, need to collaborate w/ other agencies and local governments
  - McKenna: CAISO spends lots of time thinking about load flex, looks forward to continuing discussions with focus on grid operations
  - Gold: CARB is less engaged in this work but it has potential to address local air quality issues; excited to see how CARB can integrate and support efforts to move load flex forward

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6/25 CEC Load Shift Goal workshop (cont.)

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CA's Demand Flex Resource Stack and SB 846 2030 Goal

Category	Intervention	Demand Flex Form	Dispatch	2030 Goal	Tools
Load Modifying	• TOU Rates • Dynamic Pricing • LM Programs	Shape	Out-of-market	3,000 MW	• Load Management Standards; • Rates (TOU and CalFUSE); • Infrastructure (MIDAS, AMI, and Data Access Platform); • Codes and Standards (FDAS, Interoperability, and Cybersecurity); • Programs (PDR, RDRR, ELRP, DSGS, and DEBA) • Technologies (VGI, VPP, Energy Storage, Smart Appliances, Smart Panels, and EMS)
Resource Planning and Procurement	• Economic Supply-side DR • Reliability Supply-Side DR • POU DR Programs (Non-ISO)	Shift/Shed	Market Integrated	4,000 MW	
Incremental and Emergency (I&E)	• I&E Programs • Emergency Back-Up Generators*	Shift/Shed	Out-of-market		

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6/25 CEC Load Shift Goal workshop (cont.)

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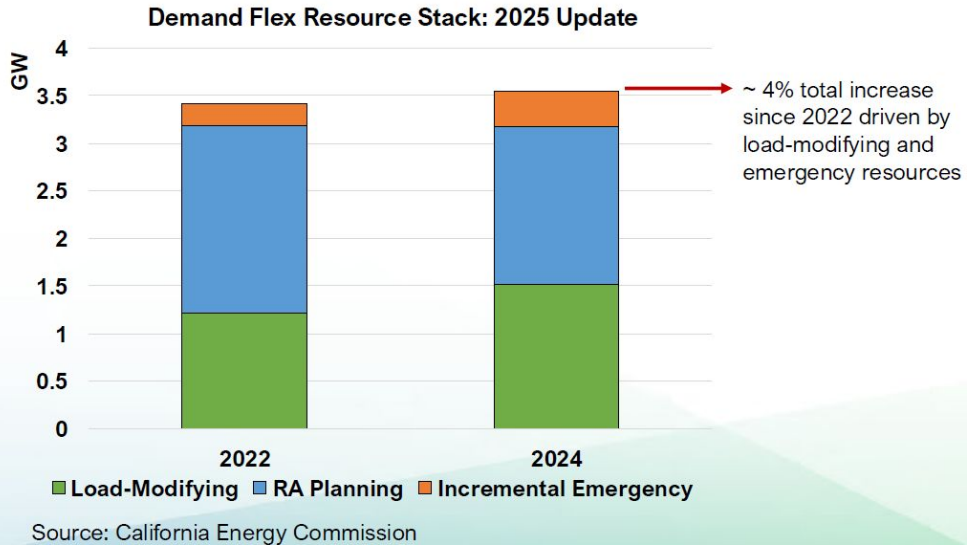
Staff Presentation on Progress Toward 7 GW LSG Goal

2024 Resource Estimate is ~ 3.5 GW



Source: California Energy Commission

2022-2024 Estimates (Breakdown)

Load-Modifying	2022	2023	2024
Time of use (TOU) & EV-TOU rate impacts	1000	1078	1122
Customer storage (non-event based)	173	266	358
IOU Critical Peak Pricing (CPP) impacts	30	21	31
CCA customer programs	7	3	3
RA Planning			
Emergency DR (IOUs)	740	750	800
Economic DR (IOUs & CCA)	1014	906	558
POU DR Programs	210	233	304
Incremental Emergency			
ELRP	190	190	209
DSGS*	46	46	161
GRAND TOTAL	**3410**	**3493**	**3546**

**The DSGS estimates are based on a preliminary CEC staff analysis and are subject to change.*

Source: California Energy Commission

- Non-RA DR has increased by 32% (438 MW), largely driven by EVs, batteries, and DSGS
- Supply Side DR portfolio decreased by 23% (302 MW), partially due to DRAM sunset
- May not reach 7 GW target under Business-As-Usual conditions; need additional near-term strategies

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6/25 CEC Load Shift Goal workshop (cont.)

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CA Demand Flex Summit and Stakeholder Outreach Results

- CEC sent a survey to 39 stakeholders across all categories for not-for-attribution feedback; received 27 responses
  - Survey topics included:
    - Policy barriers impacting the full utilization of load flexibility
    - Alternative market or regulatory models and approaches
    - Emerging trends in the California market
    - Other conceptual ideas to scale load flexibility
- CA Demand Flex Summit
  - Purpose: Discuss progress & challenges to achieving the 7 GW LSG by 2030
  - Topics included: 1) unlocking CA's demand flex potential, 2) existing programs & incentives, 3) demand-side load flexibility, 4) scaling demand flex, and 5) adopting demand flex innovations

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6/25 CEC Load Shift Goal workshop (cont.)

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CA Demand Flex Summit and Stakeholder Outreach Results (cont.)

- Stakeholder insights – market barriers
  - Frequent program changes result in market uncertainty
  - Program requirements can limit flex (e.g., dispatch duration, baselines, dual participation, DER exports, telemetry)
  - Lack of standards (e.g., communications, interoperability issues)
  - Data access
  - Costly interconnection process for V2X
  - Ensuring affordability, equity, and seamless customer engagement
- Stakeholder insights – solutions & strategies
  - Streamlined and modernized wholesale market process, incl. 3P DR
  - CA LSG roadmap
  - Centralized data repository
  - Unified and simplified utility programs
  - Promote distribution-optimized load flexibility
  - Simplify and incentivize V2X interconnection

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6/25 CEC Load Shift Goal workshop (cont.)

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CA Demand Flex Summit and Stakeholder Outreach Results (cont.)

- Models outside California
  - NYPSC “Value Stack” framework for compensating DERs
  - “Smart Meter Texas” framework for an independent statewide customer data access platform
  - Massachusetts’ ConnectedSolutions provides a single umbrella brand across DER classes w/ end-to-end marketing from the IOU down to the DER provider
- Summary observation: Demand flex must be reliable, predictable, and integrated into the core of our energy planning and observations

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6/25 CEC Load Shift Goal workshop (cont.)

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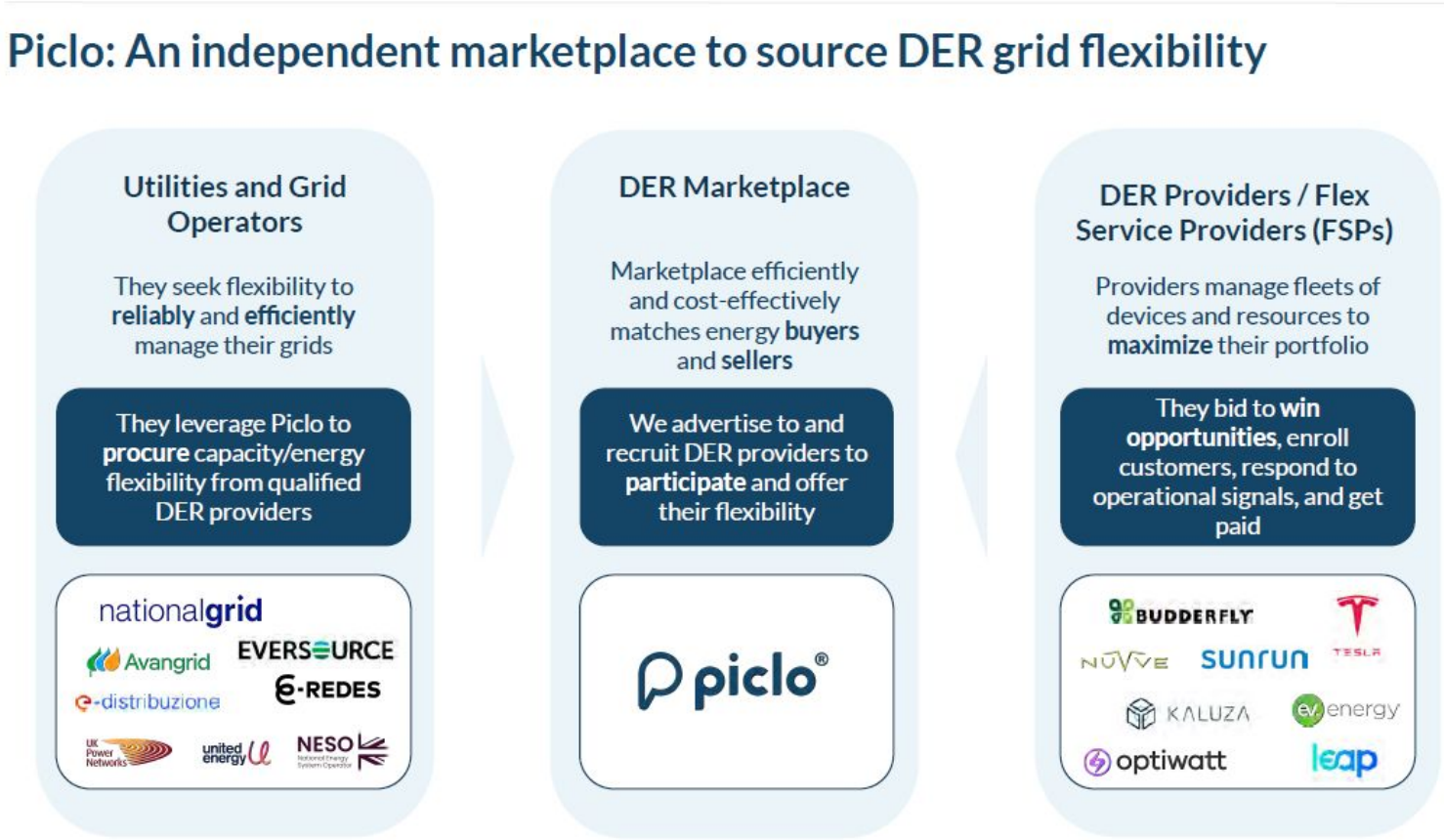
Panel on Alternative Load Flexibility Implementations - Piclo



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6/25 CEC Load Shift Goal workshop (cont.)

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Panel on Alternative Load Flexibility Implementations - NYSERDA

Elements of Value Stack

The "Value Stack" provides time- and location-specific compensation, based on

- **Energy:** The zonal day-ahead hourly NYISO auction price per MWh
- **Capacity**, as set by NYISO regional auction price. Represents a project's success in reducing annual statewide peak energy demand
- **Demand Reduction Value (DRV):** Deferred cost of distribution grid upgrades. Based on utility-specific Marginal Cost of Service Studies. Paid passed on a project's performance during a pre-set peaking window (~300 hours of summer evenings)
- **Location-Specific Relief Value (LSRV):** Locational adder on utility-selected congested substations. Projects paid for performance during call events
- **Environmental value:** Administratively-set price for the project's green attributes (REC). Calculated by NY Department of Public Service using a Social Cost of Carbon calculation. ~$31/MWh regardless of time of generation

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6/25 CEC Load Shift Goal workshop (cont.)

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Panel on Alternative Load Flexibility Implementations - Elevate

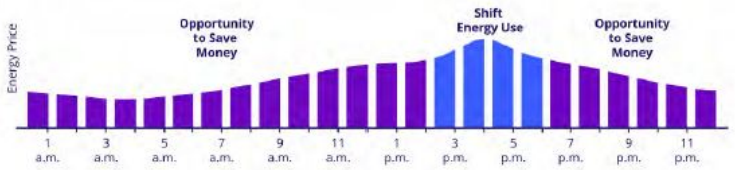
ComEd's Hourly Pricing Program: Overview

OVERVIEW

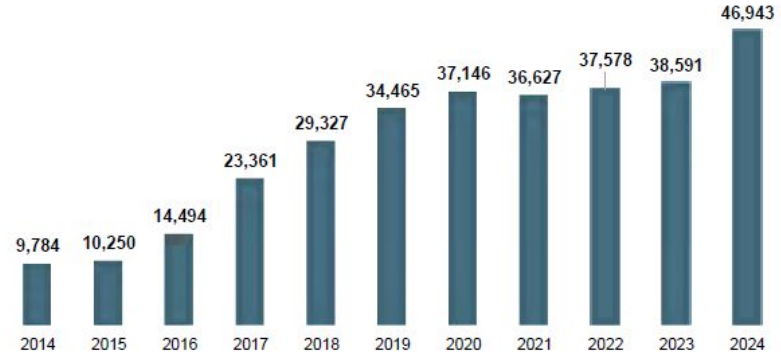
Residential customers can opt-in to Hourly Pricing. Rate BESH (*Basic Electric Service Hourly Pricing*) charges them the real-time hourly market prices for their usage. Rider RRTP (*Residential Real Time Pricing Program*) accounts for the supplementary tools, resources, ongoing education, and support to help customers paying real-time market prices on Rate BESH manage their energy use.

KEY FACTS & STATS

- 53,625 active participants
- 15,940 EV owners (30%)
- 2,338 Low-income customers (4%)
- 4,981 Solar Net Metering customers (9%)
- Cumulative supply savings since 2007: $50,929,852
- Avg. annual participants savings since 2007: $144 (19%)



PROGRAM PARTICIPANTS



2024 Monthly Average Supply Savings

5

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6/25 CEC Load Shift Goal workshop (cont.)

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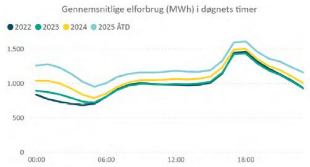
Panel on Alternative Load Flexibility Implementations – Energinet (Denmark)

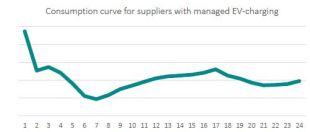
ENERGINET

PRICE SIGNALS TO PROMOTE FLEXIBILITY



Tarifs must be cost reflective
- Polluter pays principle

Encourage maximum use of the grid without further grid investments
- Move the grid load to low load hours
- Base load as today but flexible load during low load hours
- Energinet will charge DSOs



Less volume -> more capacity

Future increase in energy consumption should cost as little as possible as long as it is placed right during the day.

ENERGINET

MIN STRØM (MY POWER) – APP

Free app for consumers

Free service for end user to
- Show prices
- Show consumption
- Plan usage for appliances

The revenue comes from ads in the app or purchase of an ad free app.

Providing plenty of implicit demand response

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6/25 CEC Load Shift Goal workshop (cont.)

- Council and other stakeholders provided oral comments; Council expressed appreciation of the supportive statements by the different agencies for collaboration; need to put this into action. Without CPUC adoption of the LSG, it will not be achieved
- Key takeaways & indicative questions
  - McAllister:
    - Batteries and EVs are a core for LM but they can also help on the supply side; are there any data sources that can be used to count the capacity of these resources?
    - Load factor has relevance b/c it is a quantifiable metric of the optimization of the use of the grid (echoed by Gunda)
    - CEC currently receiving customer meter data from IOUs on quarterly basis; agrees with stakeholders who recommend a more frequent refresh
  - McKenna: Have you thought about whether shorter or longer-duration programs have the greatest load impact?
- Workshop presentations and the recording can be found here
- Next steps: Written comments due on 7/9

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Quick hits

- CPUC issued a final decision on 6/27 in the Resource Adequacy (RA) proceeding
  - Made no changes to the PD in declining to adopt the Leapfrog Power/OhmConnect proposal to allow DR to provide RA outside of the AAH
  - Clarifies that the DR questions may be addressed in the successor RA proceeding or a new DR rulemaking
- CAISO Demand & Distributed Energy Market Integration
  - Working group met on 6/17 where the focus shifted to “enhancing demand flexibility options”
  - Proposals presented by NCPA, CDWR, and Portland General Electric
    - NCPA: Allow hydrogen electrolyzer to operate as Participating Load
    - CDWR: Allow Participating Load to participate in real-time market
    - PGE: New DR participation model in WEIM
  - Comments due on 7/11

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Discussion and Questions

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Thank You!

Please contact us if you have any questions.

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