

What are the Load Management Standards?

Regulations adopted by the California Energy Commission (CEC) to promote electricity demand flexibility.

Demand flexibility

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Load flexibility

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Demand management

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Demand-side management

The objectives of the Load Management Standards are to:

- Encourage the use of electrical energy during off-peak hours
- Control daily and seasonal peak loads
- Improve equity, efficiency, and reliability
- Lessen/delay need for new electrical capacity
- Reduce fossil fuel consumption
- Reduce greenhouse gas emissions

Demand flexibility can contribute to all three of SVCE's service goals:

- √ Affordable
- ✓ Clean
- ✓ Reliable



Past Demand Management Methods Are Not Sufficient

Supply

Demand

DSM / VPP

Past...





Seasonal price volatility



Dumb on/off appliances

TOU rates w/~15% 'deltas'

Manual control during

9-15 peak events/year

Flat/declining load











- Renewable
- Variable capacity
- Daily price volatility
- All-electric
- Connected/flexible loads
- 70%+ load growth



- **Dynamic rates**
- **Automated/continuous** optimization & control



California regulators have concluded that demand programs, while effective at reducing power use, do not encourage shifting usage to nonpeak hours enough.



Load Management Standards Compliance Plan

- Updates to the Load Management Standards require load serving entities to file a plan to the CEC for approval (Compliance Plan)
- The plan must:
 - 1. Describe how SVCE's Plan Meets the load management standards goals
 - 2. Evaluate cost effectiveness, equity, technological feasibility, benefits to the grid, and benefits to customers of <u>marginal cost-based rates</u> for each customer class <u>or programs</u> that enable automated response to marginal cost signals for each customer class

April 1, 2024	End of June 2024	Feb 28, 2025	July 1, 2025	April 1, 2027	July 1, 2027
1 st Compliance Plan Due	Real	Time Pricing (RTP) F	2nd Cycle Compliance Plan Due	RTP optional for all	

What Are the Real Time Pricing Pilots?

We anticipate very few customers enrolling in these optional hourly rate pilots.

Pilot Category	PG&E Pilot Name	Eligible Customer Classes	Pilot Description	Start Date
Demand Flexibility	PG&E AgPilot	AG-1A, AG-1B, AG-B, AG-C	Pilot incentivizes shifting of agricultural pumping loads	End of June 2024
Demand Flexibility	PG&E Expanded Pilot 2	E-ELEC, B-6, B-10, B-19, B-20, EV2-A, BEV	Pilot incentivizes commercial and industrial customers to shift loads as well as EV owners and electrified residential (E-ELEC)	End of June 2024
DAHRTP	DAHRTP GRC	B-6, B-19, B-20, E-ELEC	Pilot incentivizes commercial and industrial customers to shift loads as well as electrified residential (E-ELEC)	By 2/28/25



SVCE's First Plan: Current & Future Efforts

The theme of SVCE's first LMS Compliance Plan:

- SVCE's efforts to better match supply and demand to date through existing programs
- Exploration of hourly rates through pilot participation

CEC Review, Consequences of Noncompliance, and Annual Filings

- CEC will be looking for "good faith efforts" to comply with the regulations
- After reviewing the plan, the CEC may request additional information or recommend changes
- If a load serving entity is noncompliant, then the CEC's Executive Director may file a complaint with the CEC or seek injunctive relief
- After the 1st submission of the Compliance plan, annual reports demonstrating SVCE's implementation of the approved plan will need to be submitted



Steps Leading Up to Compliance Plan Filing

- Feb 2024 Content of 1st Compliance
 Plan Discussed at Exec Comm Meeting
- March 2024 BOD approve 1st
 Compliance Plan
- April 1, 2024 Plan Submitted to the CEC

Note: once the various pilot implementations are finalized, staff will review pilots in more detail with the Board.

There is uncertainty surrounding the pilot start dates for the various real time pricing pilots. Even with delays, SVCE will meet the Compliance Plan deadline.

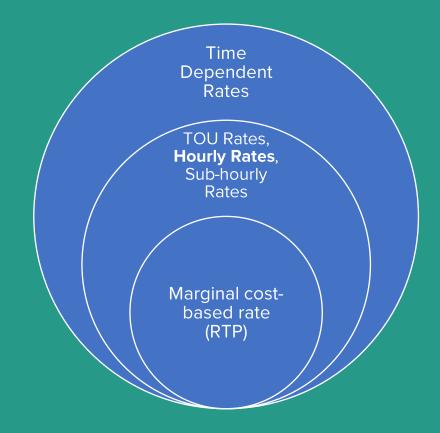
Appendix





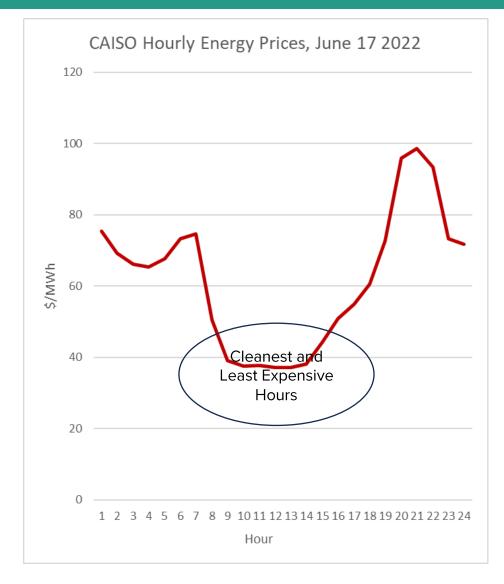
Promoting Demand Flexibility Through Real Time Pricing (RTP)

- **Time-dependent rate** = a rate that can vary depending on the time of day to encourage off-peak electricity use and reductions in peak electricity use
- Time-of-use (TOU) rate = a rate with predefined prices that vary according to the time of day, the season and/or the day type (weekday, weekend)
- Marginal cost-based rates (RTP) = a rate that accounts for the marginal energy cost, the marginal capacity cost (generation, transmission, and distribution), and any other appropriate time and location dependent marginal costs, including the locational marginal cost of associated greenhouse emissions, on a time interval of no more than one hour





Grid energy prices vary significantly during the day, month to month, and year to year.



Peak Shifting

Ability to manage the peak in real time through shifting demand provides a reliability benefit by reducing stress on the grid, which in turn helps to avoid outages.

Marginal Emissions

Emissions are correlated to marginal costs, so the lowest cost hours are also the cleanest

Overview of Compliance Plan Content

Piloting dynamic rates is the best way to gain experience and truly evaluate real time pricing.

SVCE's efforts to better match supply and demand to date (existing programs) Evaluation of dynamic rate potential with the limited information available

Status of ancillary components that will enable customers to easily access their dynamic rate

Resources needed to be able to implement dynamic rates

- Dynamic SVCE day-ahead hourly rates that reflect associated hourly costs
- Local SVCE customers broadly enrolled in new demand flexibility rates & offerings
 - o clear customer value savings and convenience
 - easy interface to facilitate:
 - behavioral control
 - connection and auto-control of EV charging, battery, HVAC, HPWH etc.
 - overrides to maintain comfort, convenience etc.
 - financial structure billing/savings, rewards
 - protection from excessive price spikes/uncertainty, complexity
- Monetization of new/expanded local capacity (RA) and energy value streams



Broad adoption requires broad input.

The Challenge: We need to move electrification from a niche market of early adopters to a universal market accessible to everyone. BAAQMD rules set a 2027 target for widespread adoption.

Intentional and structured engagement with diverse groups can ensure we get the input to build programs and policies that can serve all of our community.





SVBEST will engage new people about electrification.

Silicon Valley Building **Electrification: Stronger Together** (SVBEST) is SVCE's umbrella initiative to develop and organize the strategic partnerships necessary to prepare our region for comprehensive building electrification.

Key Objective

Ensure SVCE has
established
relationships and
partnerships essential
to begin
comprehensively
electrifying all buildings.



We have strong historical ties with...



City Managers
City sustainability staff (MAWG)



Community Leaders Group SVTEC



BAAQMD Implementation Working Group
Bay Area CCAs group



Elected Officials

SVCE Board



We want to strengthen ties with some other groups.



Workforce

Unions
Workforce Dev. Orgs
Community Colleges/Education
Contractors
City Workforce/Econ Dev. Depts
Manufacturers



Housing

Tenant's Rights Groups/Renters
Affordable Housing Providers
Community Dev. Corps
City Housing Depts
Low-Moderate Income property owners
Developers



Low-Moderate Income

Community Groups and Organizations Faith-Based Organizations Neighborhood-based groups Community Leaders

Building Electrification Engagement Goals

Establish relationships with key constituencies

Co-create
constituentspecific solutions
to common BE
concerns

Build broad support and preparation for building electrification.



30 groups engaged



150 meeting hours



450K approved on 1/10/2024 for deep investment in the community in the coming year

By the numbers, starting mid-2023

