



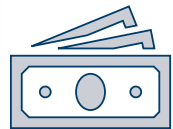
Item 7: 2026 – 2030 Electric Program Investment Charge Proposed Investment Plan (EPIC 5 Investment Plan), Draft Commission Report

August 17, 2026 Business Meeting

Anthony Ng, Branch Manager
Energy Research and Development Division



EPIC Program Background



\$185 million annual budget



Supports the development of new, emerging, and pre-commercialized clean energy innovations in California.



Provide benefits in the form of equitable access to safe, equitable, affordable, reliable, environmentally sustainable energy for electricity ratepayers.



Funds projects in three areas: Applied Research and Development, Technology Demonstration and Deployment, and Market Facilitation.



Administered by the CEC (80% funding) and Investor-Owned Utilities (20% funding).



EPIC Investments Through 2025

\$1.5 BILLION

**EPIC funds invested
since 2011**

602

Total projects awarded

\$19.8 BILLION

**Private sector
investment following
EPIC support**
*(13x amplification of
EPIC funds)*

67 PERCENT*

**TD&D funding awarded to projects
located in and benefiting
disadvantaged and low-income
communities**

*Percentage excludes combustion projects.



Harnessing the Value of Transportation Electrification for Ratepayers

Research Topics

- Scaling Managed Charging as a Grid Resource
- Reducing Barriers to Beneficial Bidirectional Charging
- Strategic Electrification of Emerging Transportation End Uses

Benefits

- Avoid grid upgrade costs
- Orchestrate EVs as DERs to provide grid services and net cost savings
- Extend EV adoption to broader customers and segments

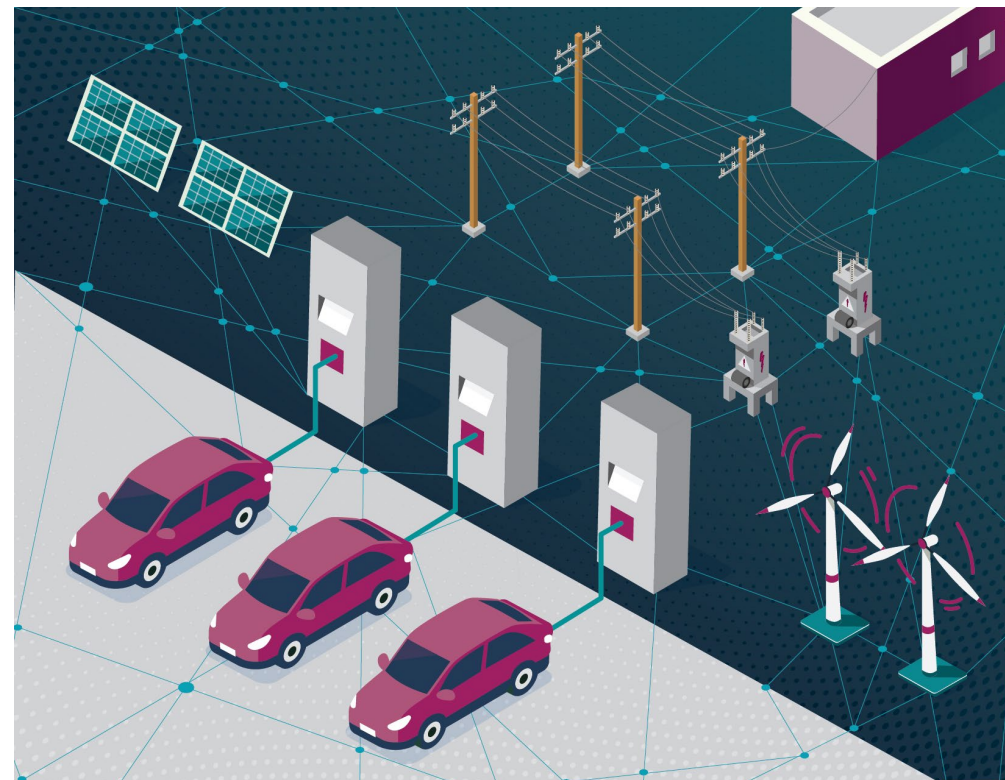


Diagram depicting electric vehicles charging and integrating with the electric grid
Credit: Sandia National Laboratory



Leveraging DERs and Load Flexibility for Affordability and Grid Reliability

Research Topics

- Advancing Customer-Sited DER Integration and Interoperability
- Improving Grid-Orchestrated DER Coordination and Market Integration
- Equity-Focused DER Solutions for Disadvantaged and Vulnerable Communities (DVCs)

Benefits

- Lower costs for customers through better utilization of existing DERs
- Improved grid reliability by shifting and shaping load during peak periods
- Expanded DER access in DVCs

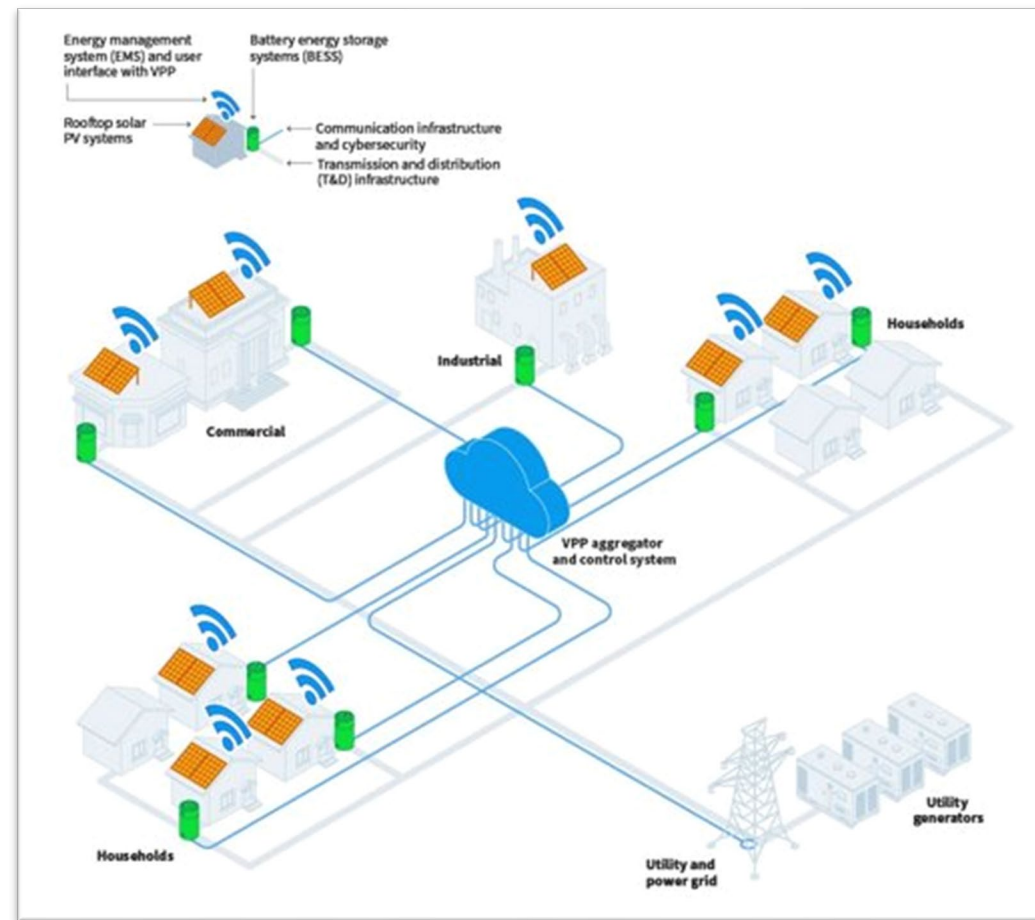


Diagram of a virtual power plant
Credit: RMI



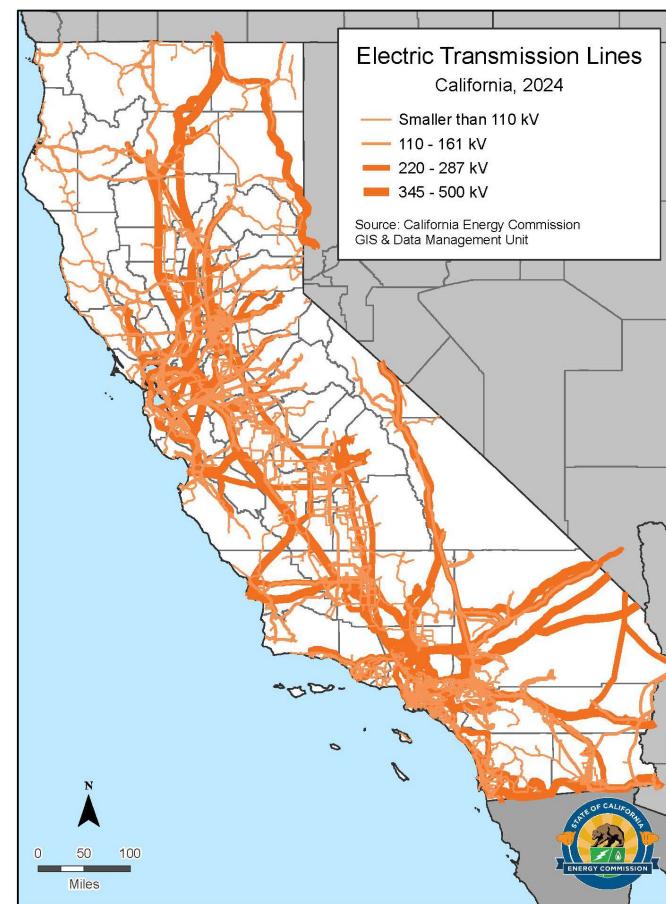
Accelerating Grid Connection of Clean Energy Resources and Beneficial Loads

Research Topics

- Innovations in Bridging Solutions for Fast Grid Connections
- Technology Alternatives to New Lines and Rights-of-Way
- Data and Planning Tools for Grid Infrastructure Investments and Coordinating Customer Decisions
- Pre-Commercial Grid Tech Incubator

Benefits

- Faster connection of clean resources and electric devices
- Optimize use of existing grid infrastructure and reduced upgrade costs
- Prioritize infrastructure enhancements serving DVCs and tribes



Graphic depicting California's electric transmission lines
Credit: California Energy Commission



Community-Led Clean Energy Capacity Building and Research Incubator for California Native American Tribes and Community-Based Organizations

Research Topics

- California Native American Tribal Energy Capacity Building and Mentorship Incubator
- CBO Clean Energy Capacity Building and Research Incubator

Benefits:

- Support tribal- and community-centered clean energy demonstrations and adoption
- Improve siting, reduce project risks, and enhance affordability, reliability, and environmental outcomes



Tribal energy education and capacity building program at Humboldt Area Foundation
Credit: Humboldt Area Foundation



Innovative Approaches to Building and Community-Scale Decarbonization

Research Topics

- Advancing Affordable Building Electrification Systems for Residential Homes
- Whole-Home Retrofit Solutions
- Neighborhood-Level Decarbonization
- Advanced Decarbonization Pathways for Difficult-to-Decarbonize Commercial Buildings

Benefits

- Reduce electrification and retrofit costs
- Enhance grid reliability and load flexibility
- Improve indoor air quality and climate resilience



Residential room size heat pump
Credit: Gradient Comfort



Advancing the Clean Energy Transition While Protecting Communities and Ecosystems

Research Topics:

- Innovation in Clean Energy Environmental Impact Assessment and Mitigation
- Advancing Health and Air Quality Research to Inform Building and Transportation Electrification in California

Benefits:

- Accelerate renewable generation deployment while reducing ratepayer costs, conserving species and ecosystems
- Improve ratepayers' air quality and health outcomes
- Increase economic potential through dual-use clean energy operations



A farmer harvests crops at an agrivoltaics research site
Credit: U.S. Department of Energy



Enhancing Clean Energy Technology Safety, Supply Chains, and Life Cycle Benefits

Research Topics:

- Advancing the Safety of Next Generation Storage Solutions
- Enhancing Energy Storage Performance and Longevity Through Advanced Battery Analytics
- Strengthening Critical Materials Supply Chains for Clean Energy Technologies

Benefits:

- Mitigate safety risk to communities
- Inform fire and safety codes and standards
- Lower cost of clean energy technologies



An energy storage project in SDG&E territory
Credit: Cleantech San Diego



Cost-Effective Industrial Decarbonization

Research Topics:

- Grid-Integrated Industrial Electrification for Affordability and Reliability
- Decarbonizing Construction Materials for Cost-Effective Infrastructure
- Affordable Clean Chemical Production
- First-of-a-Kind Deployment Support for Difficult-to-Decarbonize Industrial Sectors

Benefits:

- Deliver cleaner air and lower GHG emissions
- Reduce strain on the grid and avoid expensive upgrades
- Increase local jobs and access to clean energy technologies



Commercial scale thermal battery
Credit: Antora Energy



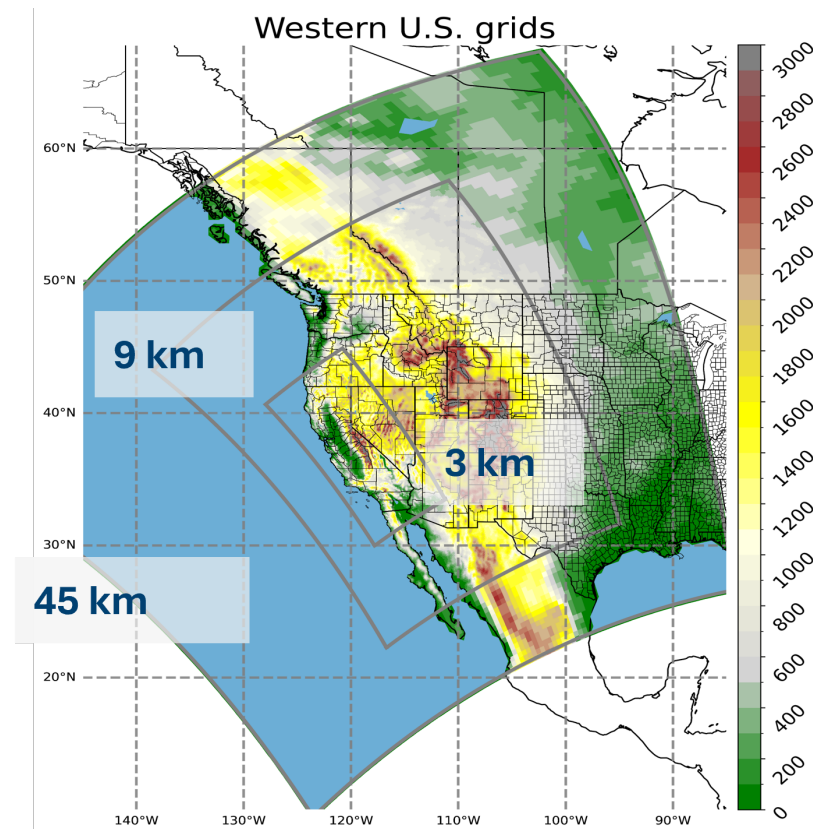
Leading Innovation in Electricity Sector Resilience and Adaptation

Research Topics

- Advancing Energy System Resilience Under Climate Change and Extreme Weather
- Supporting Wildfire Mitigation that Manages Risk and Advances Affordability
- Building Community Energy Resilience and Reliability

Benefits

- Improve anticipation and management of climate impacts on electricity systems
- Identify and evaluate affordable solutions for wildfire ignition and outage risk
- Advance locally customized resilience strategies



Graphic depicting different resolution of climate data
Credit: University of California Los Angeles



Acknowledgements

Akruti Gupta

Alexander Wyckoff

Anish Gautam

Ben Wender

Brad Williams

Bryan Lee

David Hungerford

Doris Yamamoto

Elyse Kedzie

Eric Ritter

Felix Villanueva

Harrison Reynolds

Hudson Spivey

Ilia Krupenich

Jackson Thach

Jason Tancher

Jeanie Mar

Jill Horing

Josh Croft

Julia Harnad

Lindsey Fransen

Lorraine Gonzalez

Maninder Thind

Matt Fung

Michael Ferreira

Misa Werner

Mithra Moezzi

Molly Mahoney

Peter Chen



Staff Recommendation

- Staff recommends adoption of the *EPIC 5 Investment Plan*
- Adopt staff's determination that plan adoption is exempt from CEQA
- Direct Executive Director or designee to file the EPIC 5 Investment Plan with the CPUC by August 26, 2026