

# Local Energy Resources Network



**Meeting 8**  
**May 10, 2022**

*Let's LERN Together – Featuring a  
Conversation with the California  
Energy Commission*



# Welcome!

## Purpose

Interactive 1-hour meetings designed to be a regular space where local governments - and those who work with them - can help each other learn about (and possibly inform) available opportunities to advance their energy and climate goals.

## TODAY'S AGENDA

- Opportunity Roundtable + Spotlight
- Featured Discussion: **Erik Stokes**, the Deputy Division Chief, Energy Research and Development Division with the California Energy Commission
- BPC Workshop



# Opportunity Roundtable

## Opportunities for...

1

### Funding

- [DOE: Renewables Advancing Community Energy Resilience \(RACER\)](#) (Concept paper 5/26/22)
  - [CEC: CalSHAPE](#) (5/31/22)
  - [CNRA: Environmental Enhancement & Mitigation](#) (6/3/22)
  - [SGC: Transformative Climate Communities](#) (7/1/22)
- COMING SOON:**
- [EPIC - Storage](#) (Spring 2022)
  - [OPR: Community Economic Resilience Fund](#) NOFA (Week of May 23 - July 25, **8 week solicitation window**)
  - [SGC: Regional Climate Collaborative NOFA](#) (Spring 2022)

2

### Other Assistance

- DOE-PNNL: [Energy Storage Webinar Series](#) (thru July)
- [BEI Resources for Cities](#)
- [CalBike Quick Build Bikeway Networks](#)

3

### Input

- [SGC: Affordable Housing and Sustainable Communities Program Round 7 Guidelines](#) (Input due 5/31/22)
- DOE Input opps

## On the horizon...

### Federal

#### - [Infrastructure Law \(2021\)](#)

- [Guidebook](#)
- [Program Spreadsheet](#)
- [EECBG \(Fall 2022\)](#)
- [Storage demo grants](#)
- [Energy Futures Grants](#)

#### - [Biden 2022-2023 Budget](#)

#### - [Build Back Better Bill \(hold\)](#)

### State

#### - [CA Proposed State Budget 2022-23](#)

#### - [NEW Senate Budget Proposal: Putting Wealth to Work Plan \(\\$18B for Climate\)](#)

#### - [OPR Climate Adaptation and Resilience Planning Grant \(\\$25M\)](#)

#### - [CPUC Microgrid Incentive Program \(\\$200M\)](#)



# Opportunity Spotlight

## Renewables Advancing Community Energy Resilience (DOE)

To invest in locally appropriate energy resilience planning at the community level, including the development and integration of new and existing metrics and preparedness and response plans, via robust multi-stakeholder participation and collaboration.

- Topic 1: Innovative Community-Based Energy Resilience Planning
- Topic 2: Automation Strategies for Rapid Energy Restoration
- Topic 3: Innovative Solutions to Increase the Resilience and Hardening of PV Power Plants

**Local governments or consortia are eligible to apply for funding as a prime recipient or subrecipient**

### SUBMISSION DEADLINES

- **Concept Paper Submission Deadline:**  
**5/26/2022 5:00 PM ET**
- Full Application Submission Deadline:  
7/25/2022 5:00 PM ET
- View Full Application Reviewer  
Comments Period: 8/1/2022 5:00 PM ET  
– 8/10/2022 5:00 PM ET



# *Featured Guest*



Deputy Division Chief,  
Energy Research and Development Division  
**Erik Stokes**

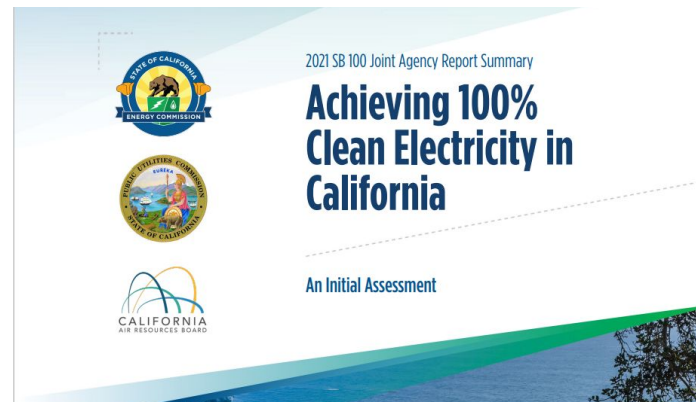


# CALIFORNIA ENERGY COMMISSION

LERN Series  
Erik Stokes  
May 10, 2022

# Policy Framing

- Can we build out wind and solar at the pace and scale needed?
- What contributions are possible from other renewable resources?
- How do we decarbonize hard-to-electrify end-uses?
- What technologies can enable flexible and dispatchable low-carbon resources?
- How do we overcome lithium battery limitations and concerns?



### California Clean Electricity Resources

	Existing Resources	Projected New Resources	
	2019*	2030**	2045**
Solar (Utility-Scale)	12.5 GW	16.9 GW	69.4 GW
Solar (Customer)	8.0 GW	12.5 GW	28.2 GW
Storage (Battery)	0.2 GW	9.5 GW	48.8 GW
Storage (Long Duration)	3.7 GW	0.9 GW	4.0 GW
Wind (Onshore)	6.0 GW	8.2 GW	12.6 GW
Wind (Offshore)	0 GW	0 GW	10.0 GW
Geothermal	2.7 GW	0 GW	0.1 GW
Biomass	1.3 GW	0 GW	0 GW

# EPIC Provides ~\$150 million Annually in New Funding for Research and Technology Innovation

Managed Charging



Solar



Microgrids



Wildfire Mitigation



Industrial Efficiency



Batteries



Storage



Electrification



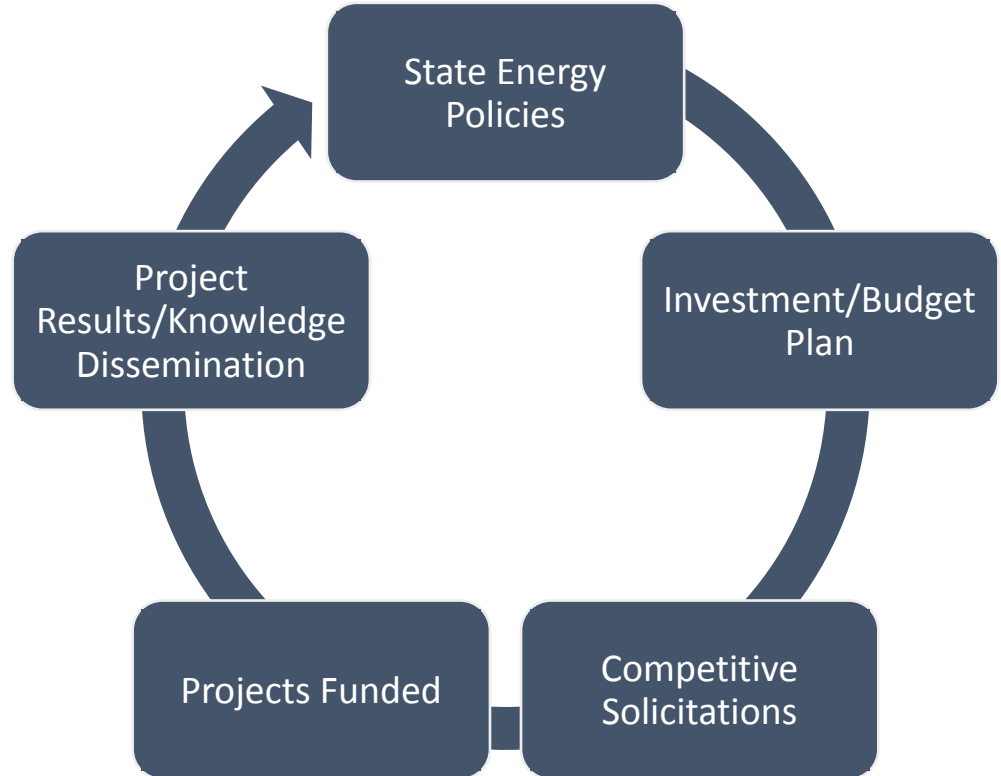
# CEC Funding Lifecycle



## EPIC PROPOSED 2018-2020 TRIENNIAL INVESTMENT PLAN

ELECTRIC PROGRAM  
INVESTMENT CHARGE

CALIFORNIA ENERGY COMMISSION  
EDMUND G. BROWN JR., GOVERNOR  
APRIL 2017 | CEC-500-2017-023-CMF



# 2022 EPIC Funding Opportunities

- Advanced Prefabricated Zero-Carbon Homes
- Energy Efficiency and Demand Response in Industrial and Commercial Cold Storage
- Energy Efficiency and Load Shifting in Indoor Farms
- Optimizing Long-Duration Energy Storage to Improve Grid Resiliency and Reliability in Under-resourced Communities
- The Role of Green Hydrogen in a Decarbonized California—A Roadmap and Strategic Plan
- Valuation of Investments in Electricity Sector Resilience
- Offshore Wind Energy Technologies
- RAMP 2022
- Federal Cost Share

# Funding Beyond 2022



## **Renewable Generation Technologies** ~\$52 million

Offshore Wind, Geothermal & Mineral Recovery, Solar



## **Zero Carbon Firm Dispatchable Resources** ~\$77 million

Long Duration Storage, Non-Lithium Energy Storage, Hydrogen



## **Distributed Energy Resources** ~\$145 million

DER Forecasting, Backup Power, EV Charging, Virtual Power Plants, Load Flexibility



## **End-Use Efficiency and Electrification Technologies** ~\$106 million

Heat Pumps, Building Envelopes, Controls, Tech Prize Competition  
Process Heating, Concrete, Separation Processes



## **Clean Energy Entrepreneurship** ~\$82 million

CalSEED, CalTestBed, RAMP, Advanced Battery Bankability Accelerator

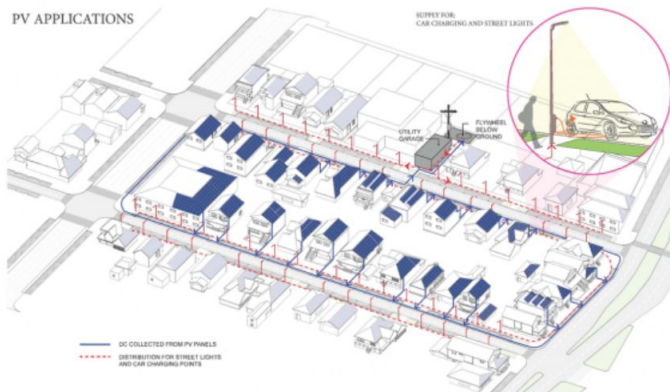


## **Inform California's Transition to Zero-Carbon Energy System** ~\$33 million

Air Quality, Climate Resilience, Environmental Sustainability



PV APPLICATIONS



## Local Government Participation in EPIC

- Host site at a municipal facility.
- Facilitate site selection and community input.
- Outreach to Community-Based Organizations
- Knowledge Transfer/Lessons Learned

# Success in EPIC Solicitations

- What is new and novel about the technology innovation?
- How will the project lead to further advancement of the technology?
- What is the technology's expected impact?
- How will project learnings be disseminated?

## Los Angeles disadvantaged community to host the largest advanced energy community built on blockchain

By Joseph Ronson - May 15, 2020 854 0

SHARE





**Energize Innovation**  
[www.energizeinnovation.fund](http://www.energizeinnovation.fund)

**Empower Innovation**  
[www.empowerinnovation.net](http://www.empowerinnovation.net)





**EMPOWER**  
INNOVATION

[empowerinnovation.net](http://empowerinnovation.net)

Thank You



# Questions

## **Questions Erik has for the Audience:**

- What do you think is the right role for local governments, NGOs and other community partners in EPIC and clean energy R&D in general?
- What challenges do you see local governments and their partners facing when applying for EPIC grants?
- What are your community's clean energy technology priorities?

## **Questions for Erik from the Audience**

# BPC Workshop

## Topic: Resource Library

Add questions or requests to the chat, raise your hand, or email [ahacker@civicwell.org](mailto:ahacker@civicwell.org)

The screenshot shows the 'Resource Library' page of the California Climate & Energy Collaborative (CCEC). The browser address bar shows 'eecoordinator.info/library/'. The page header includes the CCEC logo and navigation links for Resources, Annual Forum, Events, News, and About. The main heading is 'Resource Library'. Below this, a paragraph explains the library's purpose: to provide information on local climate and energy priorities, including EV charging infrastructure, energy efficiency, and electrification. It lists several examples of how the library can be used, such as finding funding sources, identifying best practices, and getting ideas for initiatives. A search bar is located on the right side of the page. Below the search bar, there are three dropdown menus for 'Resources Types', 'Topic Area', and 'Regions'. The 'Resources Types' dropdown is currently set to 'All Resource Types'. The 'Topic Area' dropdown is currently set to 'All Topic Areas'. The 'Regions' dropdown is currently set to 'All Regions'. In the center of the page, there is a section titled 'Funding Resources' with a sub-heading 'Active Transportation Program (ATP)'. This section describes the purpose of the ATP and lists several goals, including increasing the proportion of trips accomplished by biking and walking, increasing safety and mobility for non-motorized users, advancing the active transportation efforts of regional agencies to achieve Greenhouse Gas (GHG) reduction goals, enhancing public health, ensuring that disadvantaged communities fully share in the benefits of the program, and providing a broad spectrum of projects to benefit many types of active transportation users.

← → eecoordinator.info/library/

California Climate & Energy Collaborative

Resources Annual Forum Events News About

## Resource Library

At CCEC, we know communities are at different stages of working on various local climate and energy priorities. Whether you're building EV charging infrastructure, helping property owners afford energy upgrades, or developing electrification plans and codes, you need a way to find all the best information *when you're ready to use it* to inform your work. This resource library is designed to give you multiple ways to access the broad array of resources CCEC continuously compiles immediately. Here are a few examples of how you might use the search box or the filters to query our content:

- You've been directed to initiate a new energy or climate project and hope to advance your knowledge and accelerate the process by accessing relevant best practices, case studies, technical assistance, guides, learning events, reports, and tools;
- Your organization wants to expand its initiatives but lacks sufficient resources, and you need to identify possible funding sources;
- You want to get an idea of the kinds of initiatives other communities are doing, especially in your region or for a particular sector;
- and many more!

Don't see an important resource or have one to share? Let us know by contacting [eecoordinator@civicwell.org](mailto:eecoordinator@civicwell.org).

### Funding Resources

#### Active Transportation Program (ATP)

The purpose of ATP is to encourage increased use of active modes of transportation by achieving the following goals:

- Increase the proportion of trips accomplished by biking and walking
- Increase safety and mobility for non-motorized users
- Advance the active transportation efforts of regional agencies to achieve Greenhouse Gas (GHG) reduction goals, pursuant to SB 375 (of 2008) and SB 341 (of 2009)
- Enhance public health
- Ensure that disadvantaged communities fully share in the benefits of the program
- Provide a broad spectrum of projects to benefit many types of active transportation users

Search

Resources Types

All Resource Types

Topic Area

All Topic Areas

Regions

All Regions

# A Potential Framework for Organizing Resources

## Climate/Energy Action Area

### Buildings and Energy

### Transportation

### Climate Planning

### Natural and Managed Resources

### Material Consumption and Waste

## Strategy Type

- Energy Efficiency and Electrification
- Solar and storage
- Microgrids and resilience
- Community Choice Aggregation
- Refrigeration

- Cleaner Vehicles
- Mobility Management

- Emission reduction policies
- Environmental review
- Climate hubs or networks
- Divest/invest
- Offsets

- Open space, urban forestry, and conservation
- Agriculture and soils
- Forest/wildfire management

- Circular economy
- Waste-to-energy
- Bio-based materials

## Local Government-Led Actions

- Municipal upgrades
- Public education
- Upgrade incentives and assistance programs
- Codes and standards



- Resources YOU need:
- Best Practices
    - Case Studies
    - Funding Resources
    - Guides, reports, tools
    - Technical Assistance providers
    - Learning Events

## Constituent-Led Actions

- Residents
- Business
- Workers
- Schools/Institutions



- Resources THEY need:
- Assistance Programs

# Local Energy Resources Network



## *What's Next?*

- Next meeting **June 14, 2022**
- Share [invitation](#) with others
- What agencies or programs would you like to invite to an upcoming LERN discussion?



# CCEC Serves Local Needs



wEEkly Update



CURRENTS Quarterly



Webinars



Annual Forum



Active Funding Opportunities



Funding Program Database



Technical Assistance



Technical Assistance Directory



Local Government Roundtables



Best Practice Database



Interviews and Case Studies