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# 2022 EPIC Symposium Agenda

## **Summary:**

California continues to ratchet up its actions as a global leader in the transition to a clean, resilient, and inclusive energy economy. The state is deepening its investment in technological innovation through the Electric Program Investment Charge (EPIC) – bringing new products and services to market, driving technology performance and cost improvements, and expanding the opportunities of clean energy to all Californians. At the same time, the state is scaling up its investment in clean energy and climate more broadly – including a record \$54 billion to fight climate change and implement world-leading measures that will cut pollution, deploy clean energy and new technologies.

# Join us to learn how EPIC is helping catalyze California's equitable, zero-carbon, and climate-resilient energy future.

This year's virtual event offers engaging conversations with top government and private sector leaders focused on breakthroughs for vehicle-grid-integration and how California's bold budget will accelerate the state's clean energy and climate progress while driving economic growth. Gain insight into California's offshore wind development, strategic investments for state entrepreneurs, and realizing the vision for Lithium Valley. Explore innovations in long-duration energy storage and get new perspectives on the future of building decarbonization in California. Energy visionaries will give a behind-the-scenes look at emerging technologies and commercialization challenges and offer insights on strategies to overcome those challenges. There will be opportunities to connect with industry thought leaders, forge new partnerships, and explore future endeavors. Participate in this year's symposium to discover how EPIC is pioneering energy innovations and forging a brighter future for California.

9:00 -	WELCOME AND INTRODUCTORY REMARKS				
9:15 AM	Jonah Steinbuck, Director, Energy Research and Development Division, California Energy Commission				
	David Hochschild, Chair, California Energy Commission				
9:15 -	LIVING ROOM CHAT: LIGHTNING IN A BOTTLE: THE FUTURE OF ELECTRIC VEHICLES AND THE GRID				
10:15 AM	California has sold over 1.2 million zero-emission vehicles, with over 250,000 sales occurring in 2021 alone. As electric vehicle sales				
	continue to accelerate, the integration between vehicles, the grid, and grid operators becomes increasingly important to unlock new				
	value propositions for consumers and to advance reliable and resilient electric service. In this living room chat session, CEC Chair				
	David Hochschild will speak with government, utility, and grid management leaders about the future of vehicle-grid-integration.				
	Speakers:				
	- Moderator: David Hochschild, Chair, California Energy Commission				
	- Liane M. Randolph, Chair, California Air Resources Board				
	- Elliot Mainzer, CEO, California Independent System Operator				
	- Patricia K. Poppe, CEO, Pacific Gas and Electric				
10:15 –	TRANSITION				
10:20 AM					
10:20 –	PLENARY SESSION: THE GREAT IMPLEMENTATION: CALIFORNIA AND FEDERAL PARTNERSHIPS TO BUILD THE CLEAN ENERGY				
11:30 AM	FUTURE				
	The 2022-23 California state budget and recent federal legislation – including the Infrastructure Investment and Jobs Act and the				
	Inflation Reduction Act – make significant investments in the development and deployment of clean energy technologies. This plenary				
	session offers insights from federal and state leaders about the vision for this catalytic infusion of public investment for the state and communities.				
	Speakers:				
	- Moderator: Alice Reynolds, President, California Public Utilities Commission				
	- Henry McKoy Jr., Director, U.S. Office of State and Community Energy Programs				
	- Eduardo Garcia, Assemblymember, California State Legislature				
11:30 AM	NETWORKING/VIRTUAL EXHIBIT HALL				
- 12:05	Connect with technology and policy innovators driving California's decarbonized future. Additionally, explore the Virtual Exhibit Hall to				
PM	discover how EPIC investment is leading to exciting innovations advancing California's clean energy market.				
12:05 –	LUNCH				
1:15 PM					

1:15 -2:25 PM

# BREAKOUT SESSION 1.1: ADVANCING ENVIRONMENTAL TOOLS FOR OFFSHORE WIND DEPLOYMENTS

Continued investment in offshore wind technologies can accelerate deployment in California. Datadriven technology can optimize production and reduce operation and maintenance costs. In addition, investments in environmental modeling and tool validation can improve understanding of potential environmental impacts and inform strategies for mitigation.

#### Moderator:

Steve Black, Founder & President, Steve Black Strategies, Inc.

# Speakers:

- Arne Jacobson, Director of the Schatz Energy Research Center, California State Polytechnic University, Humboldt
- Sharon Kramer, Principal,
   H.T. Harvey & Associates

# BREAKOUT SESSION 1.2: ACCESSING CRITICAL TESTING FOR CALIFORNIA'S ENTREPRENEURS

Access to independent thirdparty testing facilities is critical to bringing cutting-edge technologies to market. Hear from CalTestBed participants – clean energy entrepreneurs who have leveraged the program's network of world-class testing facilities to speed their progress to commercialization.

#### Moderator:

Tenley Dalstrom, CalTestBed Director, New Energy Nexus

# **Speakers:**

- Davoud Zamani, CEO & Co-Founder, ALD Technical Solutions
- Jonathan Tan, CEO & Co-Founder,
   Coreshell Technologies
- Virginia Klausmeier,
   President & CEO,
   Sylvatex Inc.
- Tanya Barham, CEO & Founder, Community Energy Labs

# BREAKOUT SESSION 1.3: ADVANCING EQUITABLE BUILDING DECARB IN CALIFORNIA

Innovative strategies are needed to accelerate building decarbonization, especially in under-resourced communities. Learn how research projects are unlocking new energy transition pathways for California to achieve its renewable energy and decarbonization goals and transitioning homes in underresourced communities away from gas combustion appliances.

## **Moderator:**

Elena Krieger, Director of Research, Physicians, Scientists, and Engineers for Health Energy

# **Speakers:**

- Megan Duff, Manager for R&D, Association for Energy Affordability
- Ram Narayanamurthy,
   Manager, Emerging

# BREAKOUT SESSION 1.4: SECURING CALIFORNIA'S BATTERY SUPPLY CHAIN

Establishing a robust supply chain for lithium-ion batteries supports long-term California competitiveness. Learn how technological advancement and breakthroughs at existing and new geothermal facilities are establishing a stable, secure. low-cost source of instate lithium for manufacturing lithium-ion batteries, and how companies are establishing facilities to create and assemble critical battery components such as anodes, cathodes, and separators.

## **Moderator:**

Jason Anderson, President & CEO, Cleantech San Diego

# **Speakers:**

- Dan Winters, VP of Communications and Public Affairs, BHE Renewables
- Rod Colwell, Founder & CEO, Controlled Thermal Resources

	- Yuxin Wu, Staff Scientist, Lawrence Berkeley National Laboratory		Technologies Program, U.S. Department of Energy  Mark De Simone, Territory Sales Manager Ply Gem  Robert Hart, Principal Scientific Engineering Associate Lawrence Berkeley National Laboratory  Cain White, Director of Commercial Product Management, Mitsubishi	<ul> <li>Susanna Ventura, Principal Scientist, Materials Research LLC</li> <li>Sanjiv Malhotra, Founder &amp; CEO, Sparkz</li> </ul>	
2:25 – 2:30 PM	TRANSITION				
2:30 – 3:40 PM	BREAKOUT SESSION 2.1: CLOSING THE LOOP: LITHIUM- ION BATTERY REUSE AND RECYCLING Lithium-ion batteries from stationary storage and plug-in electric vehicles have significant potential value for reuse and recycling at end-of- life. Reuse and recycling of recovered materials into supply chains can reduce the need for virgin materials, thereby avoiding the environmental and social impacts associated with global production.	BREAKOUT SESSION 2.2: THE ROLE OF LONG-DURATION STORAGE IN MEETING CALIFORNIA'S ENERGY GOALS California must develop a comprehensive understanding of the role that long-duration energy storage can play in the future of the state's grid. This session will discuss the development of technologies and policies to enable the deployment of long-duration storage and provide information to the investment community that can help build the market for these systems in California.	BREAKOUT SESSION 2.3: INNOVATIVE TECHNOLOGIES AND STRATEGIES FOR REDUCING WILDFIRE RISK Climate change continues to pose significant challenges to the safe and reliable operation of the grid, including increasing threats from wildfires. In this session, speakers will discuss technology innovations that seek to reduce and mitigate the risks of wildfires to support overall electricity system resiliency and climate adaptation.	BREAKOUT SESSION 2.4: ADVANCING DEMAND FLEXIBILITY ACROSS SECTORS Demand flexibility in buildings and industry can deliver customer cost savings and provides a key tool for ensuring a reliable grid. In this session, speakers will discuss opportunities and challenges in advancing demand flexibility – including in communicating with devices, automated demand response, rate- responsive technologies, and predictive controls.	

### Moderator:

Patty Monahan, Commissioner, California Energy Commission

# **Speakers:**

- Antoni Tong, Founder & CEO, Smartville Inc.
- Chris Mi, Distinguished
   Professor & Electrical and
   Computer Engineering
   Director, San Diego State
   University
- Zheng Chen, Associate
   Professor, Department of
   NanoEngineering,
   University of California, San
   Diego
- Steve Sloop, Founder & President, OnTo Technology

### **Moderators:**

Mike Gravely, Sr Electrical Engineer, California Energy Commission

## **Speakers:**

- Mike Firenze, Principal Investigator, Indian Energy
- Colin W. Boone, VP, Invinity Energy Systems
- William K. Mao, CCO, Eos Energy Enterprises, Inc.
- Mateo Jaramillo, CEO & Co-Founder, Form Energy

### **Moderator:**

Doug Dorr, Manager, EPRI

# **Speakers**

- Charles Scoma, Sr.
   Technical Product Manager,
   Pacific Gas and Electric
- Yen Ha, Sr. Business Process Analyst, Pacific Gas and Electric
- Kevin Johnson, Principal,
   Pacific Gas and Electric
- Maryam Variani, Data
   Science Manager, Pacific
   Gas and Electric
- Abder Elandaloussi,
   Engineering Manager,
   Southern California Edison
- Jennifer Kaminsky,
   Manager, San Diego Gas &
   Energy

# Moderator:

Siva Gunda, Vice Chair, California Energy Commission

## Speakers:

- Beth Reid, CEO, Olivine
- Tristan de Frondeville, Founder & CEO, SkyCentrics
- Robert Good, Engineering Manager at CWEE, UC Davis
- Emily Higbee, Research
   Director, Redwood Energy