



CALIFORNIA FOUNDATION
ON THE ENVIRONMENT
AND THE ECONOMY

AGENDA CFEE Energy Conference

Build, Baby, Build... Climate Salvation Through a Construction Bonanza

February 8-9, 2024
Carneros Hotel, Napa

Despite leading the charge in passing ambitious climate targets, California has been slow to enable the vast deployment of energy infrastructure required to make those goals reality. Our 2024 Energy Summit will grapple with the scale of California's construction challenge and explore opportunities to accelerate clean energy development while fulfilling the trinity of managing ever-rising costs, maintaining energy security, and safeguarding environmental and community priorities.

THURSDAY, FEBRUARY 8**Napa Hall**

11:30 – 12:45pm	Arrival – Check-In and Lunch – Carneros Courtyard
12:45 – 1:00pm	Welcome – Conference Overview and Roundtable Introductions

Preview of conference topics, speakers, and goals

Jay Hansen, President & CEO, CFEE

1:00 – 2:15pm	<u>Session 1</u> Congratulations! Here's What You've Agreed to Build...Now, Get Busy
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With the passage of SB100 in 2018, California established its North Star for the electric sector – 60 percent “renewable energy” by 2030 and 100 percent “zero-carbon” energy by 2045. According to the most recent Scoping Plan completed by the Air Resources Board, this will require nearly **doubling** the installed capacity of our grid by 2030 and **tripling** it by 2045. Our opening panel will clarify the great feats of construction that await California if it is to fulfill SB100’s grand vision.

- What is the difference between California-approved “renewable energy” and “carbon free” energy? What types of energy are included in each definition?
- How much progress have we made in building new clean energy resources?
- Are we on track to build a grid powered by 60 percent renewable resources by 2030? What factors are slowing deployment?
- If we meet the 60 percent renewable energy benchmark, does that necessarily mean we will meet our statewide 2030 greenhouse gas goals?
- What will happen to California’s natural gas power plants, which currently provide almost 40 percent of our energy?
- Will existing state planning efforts ensure we meet our SB 100 milestones in 2030 and 2045? What additional actions need to be taken?
- AB1279 requires 85 percent direct reductions on the path to net zero in 2045 – what does that mean in terms of the types of solutions that can be deployed? What are the practical implications on the energy system, land use, costs, and the consumer?
- What does 5 gigawatts (GW) of offshore wind look like in 2030? And 25 GW in 2045?
- What happens if California does not reach its goals?

Siva Gunda, Vice-Chair, California Energy Commission

Danielle Mills, Principal of Infrastructure Policy, CAISO

Michael Wara, Director of the Climate and Energy Policy Program, Stanford Woods Institute for the Environment

2:15 – 2:30pm	Break
2:30 – 4:00pm	<u>Session 2</u> The Clean Energy Construction Challenge – How Can We Maintain, Expand, and Accelerate?

As discussed in our opening session, California has committed to building a massive amount of new energy projects in a relatively short period of time. This must all be done while investing in and maintaining our existing energy infrastructure to avoid any power disruptions. With California bursting at the seams with growing energy demand while clean energy projects lag in development limbo, how can we move more quickly to maintain and expand our energy system?

- What challenges are developers facing with siting projects and permitting facilities?
- What is California’s plan to build more quickly while ensuring environmental impacts are adequately mitigated?
- How are local governments approaching opportunities to develop projects in their backyard? How might communities, developers, and the state collaborate more effectively?
- Is the grid ready to handle the influx of new energy resources hoping to interconnect? What progress has been made in accelerating transmission upgrades?
- What might need to be done to assist the Trades in providing the construction workforce? What role does our K-14 education system play in developing their students to be the workforce we need?
- Beyond building more quickly, how do we develop a strategy to coordinate the construction and operation of California’s rapidly evolving energy system?

Alex Breckel, Director, Clean Energy Infrastructure, Clean Air Task Force

Joe Bentley, Senior Vice President, Electric Engineering, Pacific Gas and Electric Company

Kris Cheney, Executive Vice President for Development, EDP Renewables North America

Chris Hannan, President, State Building and Construction Trades Council of California

4:00 – 4:15pm	Break
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4:15 – 5:30pm

Session 3**The Customer is Always Right? A Spotlight on California Energy Users**

California is the world's 5th largest economy in large part due to the many companies that set up shop in the Golden State. These companies also play an underappreciated role in supporting the state's progress towards its energy goals. What do they make of California's energy transition?

- What challenges are energy-intensive companies experiencing as large customers? What concerns do they have about California's ability to provide power at affordable rates without interruption?
- How are their internal decarbonization plans affected by state policies?
- California plans to expand its "demand response" programs – in which customers reduce/eliminate their energy consumption during periods of high energy demand – what appetite do large energy users have for this strategy?

Lance Hastings, President and CEO, California Manufacturers and Technology Association

Jordan Weiszhaar, Senior Manager, Data Center Energy Strategy, US West, Microsoft

Jed Hwang, Senior Director, Strategy, Wonderful Real Estate Development

5:30pm

Technology Showcase – CARIBOU Mobile Biomass Unit

Before adjourning for the evening Reception and Dinner, we will receive a special briefing on the novel CARIBOU mobile biomass project. CARIBOU is a machine that can travel to California forests, farms, and communities to convert hard-to-transport waste into liquid fuels and sequestered carbon in the form of biochar. The CARIBOU unit will be on display as project representatives explain how the technology is already helping to advance California's wildfire management and energy objectives.

Project Representatives

Kieran Mitchel, CEO, CARIBOU Biofuels

Blake Simmons, Chief Technical Officer, CARIBOU Biofuels

Todd Wille, CEO, Flory Industries

6:00pm

Reception & Dinner – Carneros Courtyard

The Reception will begin at 6pm in the Carneros Courtyard followed by dinner at 7pm in the same location. We will be outdoors, as such we recommend al fresco appropriate attire.

FRIDAY, FEBRUARY 9**Napa Hall**

7:30 – 8:45am	Breakfast – FARM Restaurant
8:45 – 10:15am	<u>Session 4</u> Real Talk on Nuclear Power, Carbon Capture, and Other Decarbonization Opportunities

In the latest report by the United Nations Intergovernmental Panel on Climate Change, nuclear power and carbon capture were identified as necessary tools to stave off the worst consequences of climate change. And in a significant move as part of COP28, the United States – along with 20+ other industrialized countries, including the United Kingdom, South Korea, France, Sweden, and Finland – declared its intentions to triple nuclear power globally by 2050. Where does California stand on carbon capture and nuclear as the international community embraces the promise of these low and zero carbon solutions?

- What carbon reductions would come from increasing nuclear power in California? What about the hard costs and environmental considerations?
- What are the latest nuclear technologies on the market? What's the buzz about small modular reactors (SMR's) and advanced nuclear reactors (AMR's)?
- What are the different types of carbon capture products, and how should policy encourage, or discourage, various carbon removal activities?
- As several California companies explore carbon capture opportunities, what additional enabling policy is needed to deploy the technology quickly and cost-effectively?
- What other commercially viable resources are out there that are not part of California's favored suite of solutions?
- What are the different attributes of these technologies that can help complement our evolving energy system?

Amy R. Halloran, Director, Nuclear Fuel Cycle and Grid Modernization,
Sandia National Labs

Steve Bohlen, Senior Director, Office of Government and External Affairs,
Lawrence Livermore National Laboratory

Bob Dean, Business Manager, I.B.E.W., Local Union 1245

Katelyn Roedner Sutter, California State Director, Environmental Defense Fund

10:15 – 10:30am	Break
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10:30 – 12:00pm

Session 5
Spreading the Financial Load

While there's no agreed upon estimate of how much California's energy transition will cost (although Southern California Edison estimates **\$370+ billion** over the next two decades), it is already evident that no single source will be able to foot the bill alone. Instead, it will take the combined sums of public, private, and ratepayer contributions to make this extraordinary transition pencil out. How should we leverage and coordinate varied sources of funding to help spread the financial load?

- Now that California is the recipient of \$1.2 billion in hydrogen hub funding, what is the plan to deploy those funds? How can they be spent to further incent additional private investment?
- With the Department of Water Resources getting ready to become a major procurement entity, how will that affect affordability? What is DWR's plan to integrate itself into the existing energy marketplace?
- What is the prognosis for gas and electricity rates for consumers in California? Could rising rates dampen public support for reaching the state's clean energy goals?
- What is the state doing to get the most out of available federal funding opportunities?
- What does project financing look like now that the "free money" is gone as interest rates have spiked?
- What opportunities for public ownership of energy infrastructure could share and maintain costs?
- How are market-driven programs like Cap & Trade and the Low Carbon Fuels Standard (LCFS) rallying private investment to the decarbonization cause? Should these programs be a part of our post-2030 affordability strategy?

Christine Hironaka, Senior Advisor for Energy, Office of Governor Newsom

Matt Baker, Director, Public Advocates Office, California Public Utilities Commission

Debra Gore-Mann, President & CEO, The Greenlining Institute

12:00pm

Closing Remarks and Adjournment