MISSION STATEMENT

CFEE Study Tour

Spring 2023

Denmark

In Spring 2023, the California Foundation on the Environment and the Economy (CFEE) will lead a bi-partisan Delegation of elected officials and labor, environmental, business, and local government leaders to Denmark.

Denmark is at the forefront of a global wave of climate innovation.
Though home to fewer than six million people, the Danes have leveraged their skilled workforce, domestic resources, and practical boldness to tackle some of the most vexing climate challenges.

Through a carefully crafted itinerary of site visits, meetings, and industry tours,
CFEE will facilitate a multi-day journey for California leaders to learn from their Danish counterparts in the areas of:

- **Offshore wind permitting, fabrication, installation, and port infrastructure**
- **Carbon neutral agriculture and water efficiency innovations**
- **Bioenergy from agricultural waste, wastewater, and woody biomass**
- **Carbon Capture, "Power-to-X" hydrogen and e-fuels**

Our mission is to share best practices on these issues, and others, and return to California with lessons to support our state's evolving environmental and economic agenda.

OFFSHORE WIND | Tapping into their Viking heritage, the Danes have mastered the seas once again by harnessing the abundant wind energy blowing off their shores. Denmark has an installed offshore wind capacity of 2,300 megawatts and is hoping to jumpstart further development of its coastal waters. With its recently implemented "open door" permitting process acting as a catalyst, Denmark envisions more renewable projects delivered on a faster timeline without shirking regulatory oversight.

Denmark is a world leader in offshore wind, with a total of 20 offshore wind farms featuring 2.3 gigawatts of installed capacity.

The Delegation will see offshore wind farms firsthand and hold discussions focused on regulatory efficiency, electricity grid and port infrastructure, and workforce development. The group will meet with energy regulators, wind developers, port managers, and labor leaders to learn about Danish best practices for permitting, manufacturing, installing, and operating a fleet of offshore wind farms.

CARBON NEUTRAL AGRICULTURE | The push for carbon neutrality is particularly reshaping Denmark's proportionally large and diverse agriculture sector. Accounting for roughly 20 percent of the country's total GHG emissions, the farming community must reduce its carbon output by 55 percent from 1990 levels by 2030, ultimately laying the groundwork for neutrality by 2045.

By touring farms, research institutions, and biogas facilities, the Delegation will explore how Denmark's GHG-intensive ag sector is decreasing emissions and improving water efficiency while still promoting food security and industry competitiveness.

The Delegation will visit the Foulum agricultural research center, which is home to a pig-house of 6,000 pigs. Scientists and farmers are teaming up to test cutting edge carbon reduction practices and technologies.

BIOENERGY | Surrounded by rising sea levels, the Kingdom of Denmark is understandably motivated to confront the climate challenge head on. Denmark has committed to achieving a 70 percent GHG reduction by 2030 and carbon neutrality by 2045. A key element of their strategy is to further embrace bioenergy, which can be generated from all manner of organic materials and be used in a diverse array of industrial, home, and transportation settings.

The California Delegation will meet with government officials, industry executives, and entrepreneurs to learn how Denmark is developing a viable market, integrated infrastructure, and political will for embracing bioenergy as one of the country's most promising clean energy sources.

CARBON CAPTURE, "POWER-TO-X" HYDROGEN & E-FUELS | Home to maritime shipping giant Maersk and other major transportation companies, Denmark has become ground zero for solving one of the toughest carbon riddles – what should be done with "hard-to-decarbonize" vehicles? Vehicles, like seafaring vessels, heavy duty trucks, and planes, need abundant and readily available fuel to power their systems.

Denmark is investing heavily in the still emerging carbon capture and "Power-to-X" economies, where surplus renewable energy and captured CO2 is converted into carbon neutral or carbon negative fuels like hydrogen, e-methanol, and more. By 2030, Denmark hopes to store/use up to 1-5 million tons of CO2 and build out 4 to 6 gigawatts of "Power-to-X" capacity. The California Delegation will meet with business leaders, engineers, and vehicle operators to see if the early promise of carbon capture industries and "Power-to-X" fuels can help guide California's own pathway to decarbonization.

About the
California Foundation on the Environment and the Economy (CFEE)

CFEE is a nonprofit coalition of labor, environmental, local government, and business leaders that conducts intensive public policy conferences, legislative briefings, multiparty workshops, and international study travel projects for California State legislators, regulatory commissioners, and members of the Governor's Cabinet. CFEE brings together these leaders to facilitate focused, balanced, and solutions-oriented conversations designed to address the fundamental environmental and economic challenges in California.

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