

# Proposed New Member for the California Air Resources Board's Research Screening Committee

September 25, 2025

## Summary

The Research Screening Committee provides robust scientific peer review for CARB's research projects. The Committee can have up to eleven members to provide guidance on the wide range of topics relevant to CARB programs. CARB staff have selected Dr. Thomas Bradley of Colorado State University and Dr. Danae Hernandez-Cortes of Arizona State University for the Board to consider for appointment to the Research Screening Committee (RSC). They were selected through a public nomination and application process and have demonstrated experience and expertise in transportation services and vehicle technology as well as environmental justice and community-based research.

## Background

As required by State law (Health and Safety Code Section 39700), CARB sponsors a research program guided by the mission to provide sound and timely scientific results to support CARB's policies and programs. CARB's research program was established by the Legislature in 1971 and has formed the basis of CARB's programs since its inception. The research program's goals of informing health-based air quality standards, reducing air pollution exposures, and protecting California from the potential impacts of climate change have been met through a diverse portfolio of projects.

State law also requires that CARB establish the Research Screening Committee (RSC) to review proposed and completed research projects. The RSC provides robust scientific peer review for CARB's research projects and consists of up to eleven members encompassing physicians, scientists, biologists, chemists, engineers, meteorologists, and other subject matter experts that have the knowledge necessary to effectively advise on CARB's health, environmental justice, air quality, and climate research.

In December 2024, CARB released a public call for nominations and applications to fill positions on the RSC. The nominations and applications were due in January and February of 2025, respectively. CARB identified knowledge gaps and prioritized the following areas of expertise:

- Agriculture

- Community-based research
- Transportation services and vehicle technology
- Urban planning

Staff reviewed and scored all applications. Applications were evaluated based on the following criteria: qualifications for primary expertise area(s); statement of interest; relevant experience; experience in secondary area of expertise; and letter(s) of support. The top candidates were interviewed to identify the most qualified to fill the priority areas of expertise. Staff recommend Dr. Thomas Bradley for his expertise in transportation services and vehicle technology, and Dr. Danae Hernandez-Cortes for her expertise in environmental justice and secondary expertise in community-based research. Staff provide brief biographies below. Their expertise will increase the capacity and knowledge base needed to support CARB's research programs.

### Professor Thomas H. Bradley, PhD

#### Colorado State University

Dr. Thomas H. Bradley is a nationally recognized expert in sustainable transportation systems and vehicle technology. He is currently the Woodward Professor and Head of the Department of Systems Engineering at Colorado State University. His research focuses on the design, modeling, and optimization of advanced vehicle technologies, including electric vehicles (EVs), hybrid powertrains, and fuel cell systems for both on-road and aerospace applications. Dr. Bradley has led groundbreaking studies on the life-cycle impacts of EVs, the integration of electric vehicles into power grids, and the development of tools to support transportation decarbonization.

As author of more than 100 peer-reviewed publications, Dr. Bradley's work has shaped both academic understanding and practical decision-making around vehicle emissions and clean transportation policy. He collaborates with government agencies, national laboratories, and industry partners to develop scalable solutions that improve vehicle efficiency and reduce environmental impacts.



## Professor Danae Hernández-Cortés, PhD

### Arizona State University

Dr. Danae Hernández-Cortés is an economist with deep expertise in environmental justice, climate policy, and the distributional impacts of environmental regulation. She is currently an Assistant Professor at Arizona State University, jointly appointed in the School for the Future of Innovation in Society and the School of Sustainability. She is also a Faculty Research Fellow at the National Bureau of Economic Research. Her research focuses on how environmental policies affect different communities, using tools such as causal inference, remote sensing, and atmospheric modeling to evaluate inequality in pollution exposure and policy outcomes. Dr. Hernández-Cortés has examined issues including California's cap-and-trade program, disparities in air pollution, and labor market impacts of renewable energy policies.

She is committed to advancing equity in environmental policy. Originally from Mexico, Dr. Hernández-Cortés brings a global perspective to her work and collaborates with diverse communities and policy stakeholders to inform more just and effective climate solutions.

