

DOCKETED

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9:00 am – 2:30 pm
Byron Sher Auditorium



GOVERNOR'S OFFICE FIVE PILLARS SYMPOSIUM

Rethinking Transportation in California

2030 Climate Change Commitments



California Environmental Protection Agency
 Air Resources Board



Objective of the Symposium

Provide a forum for State policy makers to hear from experts and stakeholders on ways to transform California's transportation system over the next few decades. Specifically, the forum will help identify the challenges and opportunities available to influence these changes in a way that:

- efficiently moves people and freight,
- meets California's public health, land use, economic and environmental objectives, and
- puts us on a 2030 pathway to achieve petroleum use reductions, climate goals, and health-based air quality standards.

Framing

Reducing transportation sector greenhouse gas (GHG) and criteria pollutant emissions is required to meet the State's ongoing air quality and climate objectives. Specifically, reducing on-road petroleum use by up to 50 percent in 2030 is a critical element of a comprehensive approach that is necessary to meet the Governor's target of cutting the State's GHG emissions by 40 percent below 1990 levels by 2030, as well as to meet federal health-based air quality standards in the same time frame.

As we plan to meet these objectives, the transportation sector is undergoing its most significant transformation in over half a century. California is making substantial and increasing investment in rail, mass transit, and active transportation as strategies to

reduce GHG and criteria pollutant emissions. Local governments are creating sustainable communities through investment in transportation-efficient development. New vehicle technologies are making cars and trucks more efficient and zero emission. Clean, drop-in renewable fuels are entering the market to displace diesel and other petroleum-based fuels. The State's vehicle and fuel regulations, including the Cap-and-Trade Program, are well-suited to provide the flexibility needed to take advantage of these technology innovations while sending clear signals to the market about how clean technologies will be rewarded.

Another critical element of this transformation path is how the future multi-modal transportation system will be used. As population grows and demographics shift, generations are flocking back to cities and embracing less car-dependent lifestyles, which requires an increasing commitment to smart urban planning and investment in transit, active transportation facilities, and high speed rail.

Similarly, the use of vehicle, fuel, and information technology is revolutionizing the transport of freight, making goods movement more efficient, less expensive, and cleaner.

These changes will all have profound impacts on the way we use our transportation system, the fuels that power it, the costs and resources to fund it, the modes we use to access destinations, the equity questions around access and mobility, the land use patterns and development around transportation systems, and the associated greenhouse gas emissions. It is important that the conversation include the synergies among the transformation of each of the elements—vehicle technologies, fuels, and how we use the transportation system. Critically, we have an opportunity to influence these changes in a way that enhances California's economy, environment and equity. We need to understand these changes and shape them—for the sake of livability, and for the sake of meeting the Governor's petroleum reduction goals, reaching the 2030 greenhouse gas target of 40 percent below 1990 emission levels, and achieving air quality standards. Doing so means understanding the nexus between transportation and energy and incorporating a broad array of experts in multiple fields to participate in California's climate and energy policy discussions. Moreover, it means understanding the role that vehicle technology, cleaner fuels, and systems design and user behavior can all play in helping to meet those goals.

This symposium will explore the evolving transportation sector and options to reduce on-road petroleum use in California by up to 50 percent in 2030.

Agenda

Introduction

9:00 – 9:30 am

Welcome

Floyd Vergara · Division Chief, ARB

Opening Remarks

Brian Kelly · Secretary, CalSTA

Workshop Overview & Objectives

Richard Corey · Executive Officer, ARB

Conceptual Framework for Reducing Petroleum Use by 50 Percent

Ryan McCarthy · Science and Technology Policy Advisor
to the Chairman, ARB

Session 1

9:30 – 10:10 am

Sustainable Freight Leadership · Boosting Supply Chain Efficiencies

Moderator: Cynthia Marvin, ARB

James Jack · Beneficial cargo owners' view
Executive Director, Coalition for Responsible Transportation

Michael Christensen · Port view · Senior Executive Lead,
Supply Chain Optimization, Port of Long Beach

Break

10:10 - 10:20 am

Session 2

10:20 - 11:15 am

Vehicle Technologies in 2030 · Light-Duty and Heavy-Duty

Moderator: Joshua Cunningham, ARB

Light-Duty Vehicles

John German, ICCT · Conventional vehicle efficiency

Dr. David Greene, University of TN · Zero emission vehicles

Dr. Marc Wiseman, Ricardo · Autonomous and connected vehicles

Heavy-Duty Vehicles

Tom Reinhart, SWRI · Heavy-duty engine technologies

Jamie Hall, CALSTART · Zero and near-zero vehicle technologies in last-mile delivery and advanced clean transit applications

Session 3

11:15 - 12:00 pm

Clean Fuels

Moderator: Tim Olson, CEC

Chris Sommerville, U.C. Berkeley · Biofuels

Corinne Drennan, PNNL · Refinery integration of renewable feedstocks

Simon Mui, NRDC · Environmental perspective

Chris Hessler, AJW · Market perspective

Lunch

12:00 - 1:00 pm

Session 4

1:00 - 2:15 pm

Smart Growth and Transportation Choices

Moderator: Chris Calfee, OPR

Chris Calfee, OPR · Changing trends/land use patterns (demographics, urbanization, mode shift)

Jeanie Ward-Waller, California Bicycle Coalition · Active transportation (walking, biking)

Susan Riggs, BCSH/HCD · Infill, transit oriented development

Denny Zane, MoveLA · Transit access

Katherine Perez-Estolano, HSRA Board · High speed rail and land use

Closing Comments

2:15 pm

Cliff Rechtschaffen, Senior Advisor, Governor's Office

Speaker Biographies

Christopher Calfee

*Senior Counsel
Governor's Office
of Planning and Research*

As Senior Counsel at the Governor's Office of Planning and Research, Chris advises on legislative and regulatory matters involving land use, including infill development, resource conservation and renewable energy. He has served as the lead attorney overseeing updates to the CEQA Guidelines since 2009. Prior to joining state service, Chris represented both local governments and private applicants in matters involving the California Environmental Quality Act and related environmental and planning laws in association with the law firm of Remy Moose & Manley LLP, and later with Best Best & Krieger LLP.



Michael R. Christensen

*Senior Executive
Supply Chain Optimization
Port of Long Beach, California*

Michael Christensen is Senior Executive for Supply Chain Optimization for the Port of Long Beach, California, reporting directly to Chief Executive Jon Slingerup. He was named to the newly created position in February 2015 by the Long Beach Board of Harbor Commissioners. Mr. Christensen, a transportation professional with more than 40 years



of both public- and private-sector experience, is responsible for working collaboratively with industry stakeholders to find new ways to increase communication and cooperation among the links of the supply chain to enhance cargo flow.

Most recently he was second in command as Deputy Executive Director at the neighboring Port of Los Angeles and head of their Development Bureau. Before joining the Port of Los Angeles in 2006, he served as Vice President at Parsons Transportation Group in Irvine, California, and as Vice President and Managing Principal for Nolte and Associates in Walnut Creek, California.

His career has also included senior management positions at several other transportation consulting firms plus 16 years of service to the Southern Pacific Railroad where he held various posts including Assistant Chief Engineer for Design and Construction and Chief Environmental Affairs Officer.

He earned a bachelor's degree in civil engineering from Arizona State University and a certification in Executive Education from Harvard Kennedy School of Government. He is a registered professional engineer in 10 states, and is a member of the American Society of Civil Engineers and the American Railway Engineering and Maintenance-of-Way Association.

Mr. and Mrs. Christensen and their children make their home in Redondo Beach, California, where he is an elected member of the Redondo Beach Board of Education.

Richard Corey

*Executive Officer
California Air Resources Board*

Mr. Corey has 28 years of professional experience in the air pollution field with over 20 years of that experience in a management capacity at ARB. Prior to his appointment as Executive Officer, he served as Deputy Executive Officer and Chief of the Stationary Source Division.



Mr. Corey's team of over 1200 professional managers and staff are responsible for a broad range of programs including those concerning fuels, climate, incentives, and air toxics. Some of the key programs that his team is responsible for implementing include the low carbon fuel standard, cap-and-trade regulation, measures and incentives to reduce emissions from

a variety of goods movement sources, including port trucking, transport refrigeration units, cargo handling operations, maritime operations, rail-related goods movement, and measures to reduce emissions from stationary and portable diesel engines as well as several strategies to reduce toxic air contaminants from a wide variety of sources. In addition, Mr. Corey oversees the Board's administrative services and information technology operations.

Mr. Corey has an undergraduate degree in Environmental Toxicology as well as an MBA from the University of California, Davis.

Joshua M. Cunningham

*Branch Chief
Sustainable Transportation Technology,
California Air Resources Board*



Joshua Cunningham is the Branch Chief of the Sustainable Transportation Technology Branch within the Air Resources Board. This branch is in charge of implementing the Advanced Clean Cars regulations as well as many programs to support the growth of the Zero Emission Vehicle market, including infrastructure, outreach, and multi-agency planning.

Joshua has been with the Air Resources Board for over six years contributing to a number of advanced vehicle and emission reduction programs. He spent his first few years working on the ZEV regulation update focusing on technology feasibility and environmental benefits. Complementing this regulatory experience, Joshua helped launch the Plug-in Electric Vehicle Collaborative, addressing market barriers to the emerging ZEV sales. In the past two years, Joshua has been the manager of the Transportation Planning Section, leading the development and use of the ARB Vision scenario planning tool. The Vision program has been instrumental in further analysis of the role of ZEVs light-duty and heavy-duty applications.

Corinne Drennan

Engineer

Pacific Northwest National Laboratory



Corinne Drennan joined the Pacific Northwest National Laboratory (PNNL) in 2007. Her research interests include chemical and biological process development, energy systems analysis, and conversion of biomass and “waste” streams to liquid fuels and chemicals. Her expertise is in applied research including design, build, and operation of test stands as well as process design and modeling for technoeconomic analysis.

Currently Corinne serves as PNNL’s Laboratory Relationship Manager, working with the Bioenergy Technologies Office (BETO) and PNNL staff to develop and execute a RD&D portfolio that serves DOE and PNNL missions. This includes strategic planning and capability development, multi-year program and resource loaded planning support, BETO technical support, Annual Operating Plan development coordination and budgeting, and quarterly tracking and reporting for PNNL’s ~\$16M applied bioenergy portfolio.

John German

Senior Fellow

*International Council
for Clean Transportation*



John German is a Senior Fellow for the International Council for Clean Transportation, with primary responsibility for technology innovation and U.S. policy development.

Mr. German has been involved with advanced technology and efficiency since joining Chrysler in 1976, where he spent 8 years in Powertrain Engineering working on fuel economy issues. He then spent 13 years doing research and writing regulations for EPA’s Office of Mobile Sources’ laboratory in Ann Arbor, MI. Prior to joining ICCT 6 years ago, he spent 11 years as Manager of Environmental

and Energy Analyses for American Honda Motor Company, with an emphasis on being a liaison between Honda's R&D staff in Japan and regulatory affairs. Mr. German is the author of a book on hybrid gasoline-electric vehicles published by SAE and a variety of technical papers, including the future of hybrid vehicles, technology costs and benefits, consumer valuation of fuel savings, feebates, and light truck trends. He was the first recipient of the Barry D. McNutt award, presented annually by SAE for Excellence in Automotive Policy Analysis.

He has a bachelor's degree in Physics from the University of Michigan and got over half way through an MBA before he came to his senses.

Dr. David L. Greene

Senior Fellow

Howard H. Baker, Jr.

Center for Public Policy

Dr. David L. Greene is a Senior Fellow of the Howard H. Baker, Jr. Center for Public Policy and a Research Professor of Civil and Environmental Engineering at the University of Tennessee. In 2013 he retired from Oak Ridge National Laboratory as a Corporate Fellow after 36 years researching transportation and energy issues. Author of over 275 professional publications, he is a Lifetime National Associate of the National Academies and recipient of the Transportation Research Board's Roy W. Crum Award.



Jamie Hall

Policy Director

CALSTART

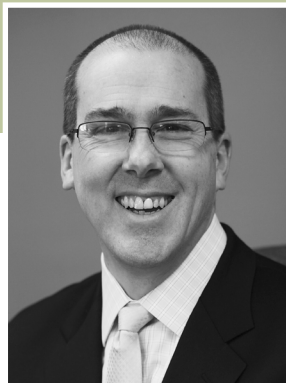
Jamie is Policy Director at CALSTART, where he focuses on legislation, regulations, and incentives that affect the clean transportation technology industry. He provides policy support for CALSTART's members and program areas by acting as a bridge between industry leaders, policymakers, and other



stakeholders. Jamie has successfully led CALSTART's recent legislative and regulatory efforts around incentive programs for clean vehicles and fuels in California. He has also authored reports on a variety of clean transportation industry and policy issues in California and at the federal level. Jamie arrived at CALSTART in 2008 with a background in energy and environmental policy issues, having worked on clean energy, innovation policy, and AB 32 implementation in graduate school and at Environmental Entrepreneurs (E2). Jamie holds a Master's degree in Public Policy from the Goldman School of Public Policy at UC Berkeley and a Bachelor's degree in Politics from Princeton University.

Christopher Hessler

*Partner
AJW, Inc*



Christopher Hessler is best known for developing and implementing innovative strategies to enhance market opportunities for clean-technology clients. He has nearly three decades of experience in environmental markets, law, and regulation and expertise in the ways that government rules can facilitate or inhibit private sector investment.

In 2003, he founded AJW, Inc. to provide high-quality business consulting and advocacy services to help clients accelerate development and deployment of their energy and environmental technologies. He focuses on helping innovators attract investment and penetrate markets dominated by incumbent technologies that often benefit from entrenched government policies.

He has advised a wide array of nationally and internationally respected clients including private corporations, non-profit organizations, business and industry organizations, foundations, research organizations and advocacy coalitions.

Prior to founding AJW, Mr. Hessler worked on environmental and energy policy at the state, regional and federal level working with elected officials and private sector leaders. He served as Deputy Staff Director for the United States Senate Committee on Environment and Public Works where he was responsible for issues related to the Clean Air Act, climate change and a broad range of other energy and environmental issues.

Mr. Hessler served other elected officials including New Jersey Governor Christine Todd Whitman and Congressman Dick Zimmer (NJ-12). He began his career as a consultant in the New Jersey-based public affairs firm of Holt, Ross, and Yulish, Inc. where his work was recognized by an award (Silver Anvil) from the Public Relations Society of America.

Boards and Expert Panel Experience:

- Low Carbon Fuels Advisory Panel,
California Air Resources Board
- Clean Air Act Advisory Committee,
Environmental Protection Agency
- Board of Directors,
Northeast States Center for a Clean Air Future

James Jack

Executive Director

Coalition for Responsible Transportation



James Jack is the Executive Director of the Coalition for Responsible Transportation. CRT is a US EPA Award-Winning Coalition of the nation's largest shippers including Target, Lowe's, The Home Depot, WalMart, Best Buy, HP, Nike and JCPenney, in addition to Ports, Ocean Carriers, Railroads and Trucking providers. Through CRT, our shippers and service providers have led acclaimed national initiatives to promote emission reductions and efficiency.

In 2010, CRT launched a National Clean Truck Initiative with the Environmental Defense Fund, through which the private sector members of CRT are working in partnership with America's ports to establish industry-supported clean air programs that are both environmentally and economically sustainable.

In addition, CRT and EDF have partnered with the US EPA to expand the immensely successful SmartWay Partnership to port trucking operations through the launch of the SmartWay Drayage Program, an achievement for which CRT and EDF received the prestigious US EPA SmartWay Champion award.

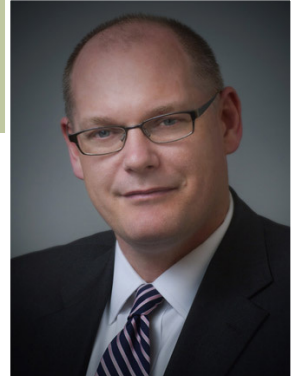
CRT is now developing industry-led solutions at ports across the country to increase the efficiency of cargo movement in and out of container terminals to reduce congestion, emissions, and costs.

James holds a Masters Degree in Public Administration from the University of Southern California and a Bachelors Degree in Finance from San Diego State University.

Brian Kelly

Secretary

California State Transportation Agency



On July 1, 2013, Brian P. Kelly was sworn in as the first secretary of the new California State Transportation Agency (CalSTA), which has replaced the Business, Transportation and Housing Agency (BT&H) with a new agency focused solely on transportation. Kelly had previously been running BT&H since March 2012 when Governor Edmund G. Brown Jr. appointed him to lead that agency.

As Acting Secretary, he oversaw 12 departments and several economic development programs and commissions consisting of more than 45,000 employees and a budget of \$18 billion -- a budget larger than most states in the nation.

The new CalSTA portfolio remains one of the largest in the State of California. Its operations address the myriad transportation issues that directly impact the state's economic vitality and quality of life including public safety, construction and maintenance, and intercity and high-speed rail.

Kelly has been at the center of most of the major transportation policy decisions in the state of California for the past decade and a half, having served as chief transportation policy consultant for four successive Senate President pro Tempores.

Kelly was executive staff director for Senate President pro Tempore Darrell Steinberg since 2008. He was executive principal consultant for Senate President pro Tempore Don Perata from 2004 to 2008, principal consultant for Senate President pro Tempore John Burton from 1998 to 2004, and assistant consultant for Senate President pro Tempore Bill Lockyer from 1995 to 1998.

Cynthia Marvin

Chief

*Transportation and Toxics Division
California Air Resources Board*



Cynthia Marvin is the Chief of the Transportation and Toxics Division at the California Air Resources Board (ARB or Board). The Division is currently leading development of the California Sustainable Freight Initiative; implementing existing diesel rules and Proposition 1B incentives for cleaner ports and rail yards; updating the State's air toxics programs to characterize and reduce the health risk from stationary and mobile sources; and guiding multiple State agencies responsible for investing over \$2 billion annually in Cap-and-Trade auction proceeds in transportation, energy, and natural resources projects that reduce greenhouse gases and maximize co-benefits for disadvantaged communities.

Ms. Marvin's prior division assignment also included climate change policy and planning, low carbon fuels, and energy issues. Her background involves 25 years of experience with the Board managing California's State Implementation Plans; developing ARB's clean air strategy for mobile sources, fuels, and consumer products; and drafting air toxics regulations to protect public health. Prior to joining ARB, she worked as an Assistant Vice President in the banking industry and received a B.S. in Environmental Toxicology from the University of California at Davis.

Ryan McCarthy

*Science and Technology Policy Advisor,
California Air Resources Board*



Ryan is the Science and Technology Policy Advisor to the Chair at the California Air Resources Board, where he focuses on transportation, energy and climate policy issues. He is heavily involved in climate policy discussions related to 2030 targets and planning, and is also helping to develop a plan to reduce emissions of short-lived climate pollutants in California, as required

by SB 605 (Lara). Prior to his appointment at ARB by Governor Jerry Brown, McCarthy was chief writer of a strategic plan for plug-in electric vehicles in California and a Science and Technology Policy Fellow in the office of California Assembly Member Wilmer Amina Carter. Ryan received his master's and doctorate degrees in civil and environmental engineering from UC Davis and bachelor's degree in structural engineering from UC San Diego.

Simon Mui

Director

*California Vehicles and Fuels,
Energy & Transportation Program
Natural Resources Defense Council*



Simon Mui is a senior scientist at NRDC and directs its advocacy and research on clean vehicles and fuels in California. Simon has engaged in various efforts to cut climate pollution from the transportation sector for over a decade.

Prior to joining NRDC, Simon worked at the U.S. Environmental Protection Agency in Washington D.C., where he authored studies on plug-in hybrid electric vehicles and on climate mitigation strategies for the transportation sector. Simon has also served as a fellow at Harvard's Kennedy School of Government and as an engineer at a battery start-up in California.

Simon, a native of California, received his undergraduate degrees from U.C. Berkeley and his master's and doctorate from MIT.

Tim Olson

California Energy Commission

Tim Olson has held several management and policy positions at the California Energy Commission and previously served as a policy advisor to Commissioners James Boyd and Carla Peterman on transportation, climate change, energy research and development and international affairs topics. He also served as manager of the Emerging Fuels and Technology and Transportation Energy Offices. He specializes in understanding transportation energy technology, changes in petroleum and alternative fuel markets, and the impact of government policies. He represents the Energy Commission as a member of several technical advisory committees and presents information in several forums, including U.S. Congress.



He currently leads the Energy Commission's strategic planning for emerging fuels and technologies to develop alternative fuel growth scenarios, facilitate private investment in California projects, and conduct technology merit reviews. This work is included as part of the annual Integrated Energy Policy Report to the Governor and Legislature and investment plans for the annual \$100 million Alternative and Renewable Fuels and Vehicle Technology Fund.

Mr. Olson received a bachelor's degree in Environmental Studies/Biology from UC Santa Barbara and serves as an appointed member of the Sacramento Metropolitan Air Quality Management District Hearing Board.

Katherine Aguilar Perez-Estolano

Board Member

California High Speed Rail Authority



Katherine Aguilar Perez-Estolano is an expert in urban planning, transportation, and stakeholder engagement.

As co-founder of ELP Advisors, she has managed numerous transportation planning and community engagement projects. She has also co-lead complex multi-stakeholder processes, including the creation of economic development implementation plans and the LA 2050 visioning project for the Goldhirsh Foundation. With her diverse background in private real estate development, transportation policy and urban planning, she has emerged as one of the most articulate and credible advocates promoting the responsible use of land and transportation.

Prior to co-founding ELP Advisors, she was the Executive Director of the Urban Land Institute, Los Angeles District Council (ULI LA), and was formerly the Vice President of Development for Forest City Development where she focused on transit-oriented development and mixed-use projects in emerging markets. Before joining Forest City, Ms. Perez-Estolano was the co-founder and Executive Director of the Transportation and Land Use Collaborative (TLUC) of Southern California, a nationally recognized non-profit that promotes greater civic involvement in planning and development. Previously, she worked as Deputy to Pasadena Mayor William Bogaard on transportation, planning and Latino constituent issues.

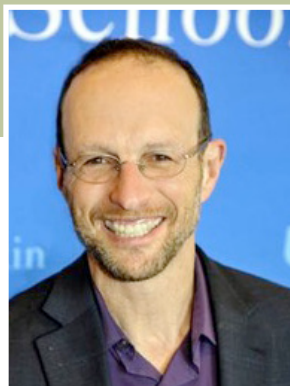
In 2013, she was appointed by Governor Jerry Brown to the Board of Directors of the California High Speed Rail Authority. Ms. Perez-Estolano previously served on the California Public Infrastructure Advisory Commission, which assisted the California Department of Transportation (Caltrans) and regional transportation agencies in developing public-private financing agreements for high-priority infrastructure projects throughout the state.

Ms. Perez-Estolano is an Adjunct Professor at the USC School of Planning and Development. She has also served as an Adjunct Professor at the UCLA School of Policy and was honored to be recognized as a 2009-2010 Senior Fellow of the UCLA School of Public Affairs. Ms. Perez-Estolano received her Master's Degree in Urban Planning and Transportation from UCLA and her Bachelor's Degree in Political Science from California State University Northridge.

Clifford Rechtschaffen

*Senior Advisor
Governor's Office*

Clifford Rechtschaffen is a senior advisor in the Office of California Governor Jerry Brown, working on climate, energy, and environmental issues. In 2011, he served as Acting Director of the California Department of Conservation. From 2007 to 2010 he was a special assistant attorney general on climate and energy issues for Attorney General Jerry Brown. He currently is on leave from Golden Gate University School of Law, where he taught environmental law and directed the environmental law program from 1993 to 2007. Prior to becoming a professor at Golden Gate, he worked in the Environment Section of the California Attorney General's Office from 1986 to 1993. He is a graduate of Princeton University and Yale Law School.



Thomas E. Reinhart

*Institute Engineer
Department of Engine Design
and Development*

Thomas E. Reinhart is an Institute Engineer in the Department of Engine Design and Development, which is part of the Division of Emissions and Vehicle Research at Southwest Research Institute. His previous positions include: Cummins Inc., Columbus Indiana, 1980 – 2000; Roush Industries, Inc., Livonia Michigan, 2001-2004, and Visteon Corporation, Van Buren Township Michigan, 2004-2005. He leads projects in engine design, performance and emissions development, as well as in gasoline and diesel engine NVH improvement. Since 2007, he has led a number of projects to investigate technologies for improved engine, powertrain, and vehicle fuel efficiency and GHG reduction, focused on medium- and heavy-duty vehicles. Currently, Mr. Reinhart is leading projects for NHTSA and National Research Council to evaluate the costs and benefits of various fuel efficiency technologies which could be applied to comply with future truck fuel efficiency regulations.



Mr. Reinhart has served on three NRC committees: Technologies and Approaches To Reducing the Fuel Consumption of Medium- and Heavy-Duty Vehicles (2008 – 2010), and Review of the 21st Century Truck Partnership, Phase 2 (2010 - 2011), and Review of the 21st Century Truck Partnership, Phase 3 (2014 – 2015). He is a member of the Society of Automotive Engineers (SAE), the Institute of Noise Control Engineering (INCE), where he served on the board of directors from 2008 through 2011, and the International Institute of Acoustics and Vibration (IIAV). He has an M.S. in Mechanical Engineering, Purdue University, and a B.S. in Mechanical Engineering from Purdue University.

Susan Lea Riggs

*Acting Director
State Department of Housing
and Community Development*



On April 27, 2015, Governor Edmund G. Brown Jr. designated Susan Lea Riggs to serve as Acting Director of the State Department of Housing and Community Development. Prior to this position, Ms. Riggs held the appointed position of Deputy Secretary for Housing Policy for the Business, Consumer Services and Housing Agency.

Before joining the Agency, Ms. Riggs served as the Executive Director of the San Diego Housing Federation. In that capacity, her primary goal was to promote the creation of safe, stable, and healthy housing that is affordable to lower income families and people in need.

In addition to this work, Ms. Riggs has held several prominent positions in San Diego, including as an attorney with law firm Best, Best & Krieger, LLP, where her specialization was affordable housing and redevelopment law. Additionally, she worked for the San Diego Housing Commission from 2001-2004. She also served as Vice President of Government Affairs for the San Diego Association of Realtors® and on the adjunct faculty of San Diego State University and Southwestern College where she taught housing policy and real estate economics.

In 2011, Ms. Riggs was inducted into Lambda Alpha International, the honorary society for the advancement of land economics and was named 40 Under 40 by San Diego Metropolitan Magazine.

Ms. Riggs received her JD from Thomas Jefferson Law School, where she graduated Magna cum Laude in 2008. She holds a Master's degree in City Planning from the School of Public Affairs at San Diego State University where she was outstanding graduate of the year in 2002. In 2014, she returned to the School of Public Affairs to receive the Donald B. Leiffer Outstanding Alumni Award. She also holds a Bachelor's degree in Spanish from the University of Georgia-Athens.

Chris Sommerville

*Philomathia Professor of Alternative Energy
Director of Energy Biosciences Institute
U.C. Berkeley*



Chris Somerville is the Philomathia Professor of Alternative Energy at UC Berkeley and Director of the Energy Biosciences Institute (EBI), a research institute at UC Berkeley, Lawrence Berkeley National Lab and the University of Illinois Urbana-Champaign initiated with a \$350M award from the energy company BP (www.energybiosciencesinstitute.org). He has published more than 230 scientific papers and patents in plant and microbial genetics, genomics, biochemistry, and biotechnology. He is a member of the US National Academy of Sciences, The Royal Society of London and the Royal Society of Canada and has received numerous scientific awards including the Presidential Green Chemistry Award, and the Balzan Award which he shared with Elliot Meyerowitz (Caltech).

Floyd Vergara

*Chief
Industrial Strategies Division,
California Air Resources Board*



Floyd Vergara is Chief of the Industrial Strategies Division at the California Air Resources Board (ARB). He oversees several of ARB's key climate change and air quality regulatory programs, including Cap-and-Trade, the Low Carbon Fuel Standard, conventional fuels regulations, energy sector programs, and oil and gas production measures. Floyd has been at ARB for over 27 years developing regulations on transportation fuels, advanced clean cars, oceangoing vessels, and other mobile or stationary sources. He received his B.S. in chemical engineering from U.C. Berkeley, his Juris Doctor from the University of the Pacific, McGeorge School of Law, and is licensed to practice in California as a professional engineer and lawyer.

Jeanie Ward-Waller

*Policy Director
California Bicycle Coalition*

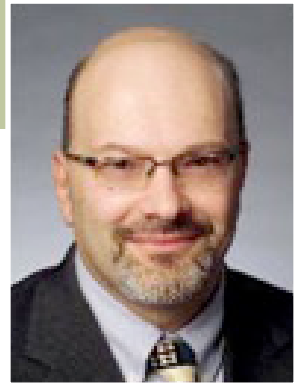


Jeanie Ward-Waller is the Policy Director for the California Bicycle Coalition. Jeanie leads CalBike's work to increase funding for bicycle infrastructure and sustainable communities, and advance policies that support active transportation and increase bicycling, especially in underserved communities. A key aspect of Jeanie's work involves convening statewide active transportation, health, and equity organizations through the Coalition for Active Transportation Leadership, and partnering with affordable housing, transit, and conservation advocates through the Sustainable Communities for All Coalition. Prior to working on transportation policy, Jeanie worked as a licensed structural engineer in Boston for five years. She holds a B.S. in Civil Engineering from Brown University, a M.Eng. in Structural Engineering from MIT, and a M.Phil. in Engineering for Sustainable Development from the University of Cambridge.

Dr. Marc Wiseman

Vice President

Ricardo Strategic Consulting



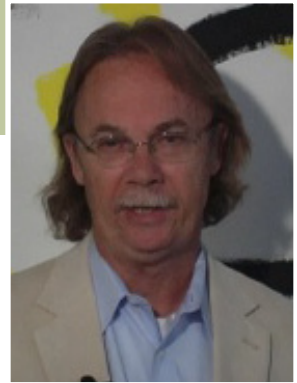
Marc is a product strategy expert specializing in Clean Transportation and Clean Technology. He has spent 30 years working on advanced vehicle technologies including lightweight vehicle structures, engines, transmissions, hybrid and electric vehicles and fuel cells. He is also active in stationary power systems including wind and solar. Dr. Wiseman has a global client base and regularly visits Europe and Asia on assignments.

Marc's programs have included performing the technical analysis for EPA to support both 2016 and 2025 CAFE rulemaking, client programs on the cost effectiveness of lightweight materials for low and high volume vehicles, and studies on the key elements of the automotive supply and value chains. Marc has a BSc and PhD in Mechanical engineering from Nottingham University in the UK. He currently resides in Reno, Nevada.

Denny Zane

Executive Director

MoveLA



Denny created Move LA in 2007 to bring together business, labor and environmental leaders and organizations with the goal of raising significant new funding for LA County's transit system. This coalition helped lead the campaign for the Measure R sales tax, and proved to be a powerful force in getting Measure R on the 2008 ballot and winning its passage, with the result that LA has embarked on an ambitious build-out of its transportation system. Previously Denny served on the Santa Monica City Council, including one term as mayor, during which time he initiated the revitalization of the Third Street Promenade. He wrote much of the land use policy for Santa Monica's downtown, emphasizing pedestrian amenities, mixed-use development, and effective transit access — before these policies became known as “smart growth.” Denny was also executive director of the Coalition for Clean Air, and began his career by founding Santa Monicans for Renters Rights in the late '70s, a progressive community coalition that has held a city council majority in Santa Monica for 24 of the last 30 years.

For more information, visit www.arb.ca.gov/cc/cc.htm