

INFORMATIONAL HEARING OF THE SENATE SELECT COMMITTEE ON
CLIMATE CHANGE & AB32 IMPLEMENTATION

**Scaling our Clean Energy Future with Grid Storage, Electric
Vehicles, and Alternative Fuels**

Tuesday, October 25, 2016
UCLA School of Law, Room 1314
10:00 a.m.

List of Participants:

Cara Horowitz, Co-Executive Director of Emmett Institute on Climate Change and the Environment, *UCLA School of Law*

John Boesel, President and CEO, *CalSTART*

Karen Butterfield, Chief Commercial Officer, *Stem*

Shomik Dutta, Chief Revenue Officer, *Romeo Power*

Anthony Harrison, Senior Manager, Regulatory Affairs, *Stem*

Sean Hecht, Co-Executive Director of Emmett Institute on Climate Change and the Environment, *UCLA School of Law*

Kent Leacock, Director of Government Relations, *Proterra*

Olaf Lohr, Director of Development, *Sonnen-batterie*

Andrew Meyer, Co-Founder, *Swell*

David Nahai, President of *David Nahai Consulting Services, LLC*; Senior Advisor, *Clinton Climate Initiative*

Rob Oglesby, Executive Director, *California Energy Commission*

Carla Peterman, Commissioner, *California Public Utilities Commission*

Matt Petersen, Chief Sustainability Officer, *City of Los Angeles*

Anne Smart, Director of Government Relations and Regulatory Affairs, *ChargePoint*

Tom Soto, Managing Partner and Co-founder, *Craton Equity Partners*

Nancy Sutley, Chief Sustainability and Economic Development Officer, *Los Angeles Department of Water and Power*

Erik Takayesu, Director of Electric System Planning, *Southern California Edison*

Eileen Tutt, Executive Director, *California Electric Transportation Coalition*

Daniel Witt, Senior Manager of Business Development and Policy, *Tesla*

Manal Yamout, VP of Policy and Markets, *Advanced Microgrid Solutions (AMS)*

Members of the California State Legislature

Senator Fran Pavley, California State Senate

Senator Ben Allen, California State Senate

Assemblymember Eduardo Garcia, California State Assembly

Committee Staff

Jake Levine, Senior Counsel, *Office of State Senator Fran Pavley*

Matthew Dumlao, Ph.D., Science and Technology Policy Fellow, *Office of Senator Pavley*

Dusty Russell, District Representative, *Office of Senator Pavley*

Biographies of Participants:

Cara Horowitz, Co-Executive Director of Emmett Institute on Climate Change and the Environment, Co-Director, UCLA Environmental Law Clinic, UCLA School of Law

Cara's areas of focus include California and federal climate policy and local sustainability. She has testified to the California legislature on climate policy and has been quoted in the *Washington Post*, the *Daily Journal*, the *Los Angeles Times*, and other media. She serves on the governing boards of local and national environmental organizations, including the Climate Law Institute, Climate Resolve, and the Green LA Coalition.

Prior to joining UCLA, Cara worked in the non-profit sector as a staff attorney at the Natural Resources Defense Council. She has also worked at Caldwell, Leslie and Proctor, a litigation boutique, and served as law clerk to the Honorable Dorothy W. Nelson of the U.S. Court of Appeals for the Ninth Circuit. Horowitz is a 2001 graduate of the UCLA School of Law, where she was an articles editor of the *UCLA Law Review* and finished first in her class.

John Boesel, President and CEO, CalSTART

CalSTART is a member organization dedicated to expanding and supporting a clean transportation industry that cleans the air, creates jobs and economic opportunities, reduces greenhouse gas emissions and secures our transportation energy future. CalSTART has over 160 member companies and organizations.

After graduating from the UC Davis in 1982, John worked in the California legislature as a legislative aide to then Assemblyman (now Congressman) Sam Farr, where he managed energy and environmental legislation for nearly four years. He received his MBA from the Haas School at UC Berkeley in 1989. In 1993 John joined CALSTART as the Vice President of Technology Programs and was promoted to his current position in 2001. John serves on the Advisory Board for the Precourt Energy Efficiency Center (PEEC) at Stanford University and is also a board member of the Clean Vehicle Foundation.

Karen Butterfield, Chief Commercial Officer, Stem

Stem creates innovative solutions that are changing the way energy is distributed and consumed. Stem combines powerful learning software and advanced energy storage, simultaneously helping businesses better manage energy costs while creating a more efficient electrical grid.

Karen is responsible for building and leading Stem's commercial enterprise. Her team at Stem has successfully deployed a large fleet of customer-sited storage with software and analytics

that serve both commercial customers at the site and electric utilities and wholesale markets. Prior to joining Stem, she was a Managing Director in the commercial systems group at SunPower. She currently serves as Treasurer on the board of directors of the Energy Storage Association ESA and holds a board seat on the SmartElectric Power Alliance (SEPA). Karen graduated from Bowdoin College with a BA in economics.

Shomik Dutta, Chief Revenue Officer, *Romeo Power*

Romeo Power is a Los Angeles based battery start-up focused on engineering, designing, manufacturing, and delivering lithium-ion battery packs for electric vehicles, households, and industrial usage. Romeo Power is building a ~ 75,000 sq. foot electric vehicle battery manufacturing facility in Los Angeles that will employ 300-450 full-time workers and will export batteries around the world.

Shomik is responsible Romeo's business development, sales, strategy, marketing, and government relations. Earlier in his career, Shomik developed and financed utility-scale solar plants in emerging markets and earlier worked as an investment banker at Morgan Stanley. Shomik started his career in government and politics, serving on President Obama's 2008 and 2012 campaigns and as a Special Assistant in the Obama White House and as a Senior Advisor to FCC Chairman Julius Genachowski. Shomik earned his BA from Williams College and his MBA from The Wharton School of Business.

Anthony Harrison, Senior Manager, Regulatory Affairs, *Stem*

Anthony currently works on Policy and Regulatory Affairs at Stem, a company specializing in battery storage solutions. He worked previously as a Policy Director with the California Energy Efficiency Industry Council, and before that, as a Manager with Ecology Action. He has also worked Apple, Renew Financial, and Canyon Snow Consulting, focusing on clean technology and renewable energy. He served as a legislative aide to Senator Loni Hancock.

Sean Hecht, Co-Executive Director of Emmett Institute on Climate Change and the Environment, *UCLA School of Law*

He teaches *Public Natural Resources Law and Policy*, *Environmental Law*, the *Environmental Law Clinic*, and a *Climate Change Seminar* at the UCLA School of Law. Sean builds collaborations on environmental issues involving academia, practicing environmental lawyers, advocacy organizations, policymakers, and the business community. His current research projects include evaluating the way courts review environmental impact analysis under the California Environmental Quality Act (CEQA), analyzing the insurance and finance sectors' roles in helping society adapt to climate change impacts, and studying the adaptation of decision-making in the governmental and private sectors to changing climatic conditions.

Kent Leacock, Director of Government Relations, *Proterra*

Proterra is the leading US manufacturer of zero-emission, battery-electric buses that help fleet operators eliminate fossil fuel dependency and reduce costs. With unmatched energy efficiency, proven by rigorous Federal Transit Administration testing, all Proterra buses are proudly designed and manufactured from the ground up in the U.S.A. Reducing greenhouse gas

and diesel particulate matter emissions without sacrificing vehicle performance or uptime, Proterra transit vehicles are backed by a team of world-class service technicians and made to meet the needs of a dynamic transportation market.

Kent Leacock is responsible for development and implementation for the company's governmental/regulatory affairs and public policy strategy. Previously Leacock was a Senior Executive with AT&T and Comcast in the East, Midwest and West. Kent received his Bachelor's from Brown University and his Masters in Public Policy from Georgetown.

Olaf Lohr, Director of Development, *Sonnen-batterie*

Sonnen designs home battery storage solutions. The batteries are combined with intelligent software to manage energy throughout the day – saving money, providing backup power, and enabling customers to use energy generated by solar power at night.

Olaf is the Director of Development at Sonnen. He leads sales and marketing for residential, commercial, and government photovoltaic and advanced energy storage installations.

Andrew Meyer, Co-Founder, *Swell*

Swell Energy is the leading energy storage provider in Southern California. Swell connects customers with high-quality battery products and trusted installers.

Andrew Meyer is a co-founder of Swell Energy, an LA-based residential energy storage developer and aggregator. Before Swell, Andrew was an attorney in the Environment, Land & Resources practice at Latham & Watkins, where he focused on renewable energy policy and finance.

David Nahai, President of *David Nahai Consulting Services, LLC*; Partner, *Lewis, Brisbois, Bisgaard & Smith*

David is a partner in the law firm of Lewis, Brisbois, Bisgaard & Smith (the largest law firm in Los Angeles with offices across the United States) and is co-Chair of the firm's national real estate, energy, water, and environmental practice areas. Nahai is also the President of David Nahai Consulting Services, LLC, and has served as Senior Advisor to the Clinton Climate Initiative. Until October, 2009, Nahai served as the Chief Executive Officer and General Manager of the Los Angeles Department of Water and Power (LADWP), the largest municipal utility in the United States. Nahai served for two years on the LADWP Board of Commissioners prior to becoming CEO in 2007. He was appointed to the Board in 2005 and became Board President in 2006. In addition to his expertise in the real estate and energy fields, Nahai is widely recognized as a leading expert on water issues. He served for over 10 years on California's Regional Water Quality Control Board, which safeguards the quality of surface, ground, and coastal waters in Los Angeles and Ventura counties, an area with over 11 million residents.

Rob Oglesby, Executive Director, *California Energy Commission*

Rob began his career under the first Brown Administration Department of Economic and Business Development, and worked in the private sector for ten years on issues related to

public finance, the environment and economic development. Immediately prior to joining the CEC, Rob held several positions at CARB where he served four Governors as an appointee and participated at the high level in virtually all major issues affecting air pollution and global warming over the past two decades. Rob's tenure at the ARB included the inception of the Low and Zero Emission Vehicle standards, adoption of reformulated gasoline and diesel fuel requirements, and development and implementation of the AB 32 (Nuñez/Pavley) from 2006.

Commissioner Carla Peterman, *California Public Utilities Commission*

Carla J. Peterman was appointed to the California Public Utilities Commission (CPUC) by Governor Edmund G. Brown Jr. in December 2012. Commissioner Peterman is the CPUC's assigned Commissioner for a number of proceedings including energy efficiency, the Renewables Portfolio Standard, alternative transportation, and energy storage.

Matt Petersen, Chief Sustainability Officer, *City of Los Angeles*

Matt heads the sustainability efforts in LA. The City's new sustainability plan focuses on accelerating solar energy, restoring the LA River, and ramping up energy efficiency and conservation.

Anne Smart, Director of Government Relations and Regulatory Affairs, *ChargePoint*

ChargePoint operates the world's largest and most open EV charging network. ChargePoint also designs, builds, and supports the technology that powers it.

Anne is the Director of Government Relations and Regulatory Affairs for ChargePoint, which is the world's largest electric vehicle charging network. Prior to ChargePoint, Anne was the Executive Director of The Alliance for Solar Choice (TASC) and previously the Director of Energy at the Silicon Valley Leadership Group.

Tom Soto, Vice Chair of Programs and Director, *New America Alliance*, and Managing Partner and co-founder, *Craton Equity Partners*

Tom is the Co-Founder of TCW/Craton and served as its Managing Director. Mr. Soto has been the Managing Director since September 2013. Mr. Soto was a Managing Partner at Craton Equity Partners. For 20 years, Mr. Soto has combined his experience as an Environmental Activist with his skill at meeting the needs of the private sector to help companies become more profitable while enhancing the environment and has also used his collective experience as a business man, environmental activist, and political advisor to assist in identifying collaborative solutions to challenging environmental and policy concerns. As a business leader his companies have included Cabrillo Fuels where he was the largest minority producer of ethanol fuel in Southern California. Mr. Soto has a vast history of advising local and national figures from the White House to the City of Los Angeles.

Nancy Sutley, Chief Sustainability and Economic Development Officer, *Los Angeles Department of Water and Power*

Ms. Sutley is the immediate past Chair of the White House Council on Environmental Quality where she served from 2009 - 2014, and previously served as Los Angeles Deputy Mayor for

Energy and Environment, Board member of the Metropolitan Water District of Southern California and the California State Water Resources Control Board, energy advisor to Governor Gray Davis and Deputy Secretary for Policy and Intergovernmental Relations for the California Environmental Protection Agency.

Erik Takayesu, Director of Electric System Planning, *Southern California Edison*

Erik currently oversees include Grid Modernization, Distribution and Transmission System Planning and Engineering, Distribution Automation, Power Quality, Generation Interconnection Planning and Studies. He has held various roles at SCE, including managing Grid Operations, Reliability Engineering, and Asset Management. As part of modernizing the electric grid, Erik has been instrumental in leading the efforts to develop SCE's Distribution Resource Plan. His organization is also developing the strategy for enabling the electric grid to integrate Distributed Energy Resources. Erik has a bachelor's degree in Electrical Engineering from the California State University at Long Beach, is a licensed PE, and holds his master's degree in Organizational Leadership from Gonzaga University.

Eileen Tutt, Executive Director, *California Electric Transportation Coalition*

CalETC is a non-profit association promoting economic growth, clean air, fuel diversity and energy independence, and combating climate change through the use of electric transportation. CalETC is committed to the successful introduction and large-scale deployment of all forms of electric transportation including plug-in electric vehicles, transit buses, port electrification, off-road electric vehicles and equipment, and rail.

Eileen Tutt worked in the California State government for over 15 years. Most recently, she served as Deputy Secretary for Cal/EPA. Before that, she worked for ARB. Active in civic duties Eileen serves as a trustee for the Climate Action Reserve and on the External Advisory Committee for the Sustainable Transportation Center at UC Davis.

Daniel Witt, Senior Manager of Business Development and Policy, *Tesla Energy*

Tesla is amplifying its efforts to accelerate the move away from fossil fuels to a sustainable energy future with Tesla batteries, enabling homes, business, and utilities to store sustainable and renewable energy to manage power demand, provide backup power, and increase grid resilience.

Daniel Witt is the Senior Manager of Business Development and Policy for Tesla and a 5 year veteran of the Company. Prior to joining Tesla, he worked for Senator Dianne Feinstein on Transportation issues including high speed rail, goods movement and regional infrastructure projects.

Manal Yamout, VP of Policy and Markets, *Advanced Microgrid Solutions (AMS)*

AMS uses advanced energy storage, load control technologies and state-of-the-art data analytics to design, build and operate customized fleets of energy storage for large commercial and industrial users and utilities.

Manal leads government and regulatory affairs, focused on developing policies in new and established markets. She most recently served as Director of Government Affairs for NextEra Energy / Florida, Power & Light—the country's largest clean energy company. Prior to this, she served as renewable energy advisor to both California Governors Brown and Schwarzenegger. Manal jointly coordinated California's effort to bring the state closer to its goal of providing at least 33% of electricity from renewables and worked to streamline permitting for tens of billions in in-state investment and ultimately 16,000 megawatts of electricity. In addition, she helped lay the foundation for Governor Brown's energy program to develop 12,000 megawatts of distributed power in California. Prior to her time as an Advisor to Governor Schwarzenegger, Manal served as California's Assistant Secretary for International Trade, Special Assistant to First Lady Maria Shriver and as an Executive Fellow in the Office of the Governor. Manal holds a Masters Degree in Public Administration from the University of Southern California and a degree in Biology from CSU San Marcos.

Members of the California State Legislature

Senator Fran Pavley, Chair, Select Committee on Climate Change and AB32 Implementation, California State Senate

Senator Pavley serves the citizens of Senate District 27, including the eastern portion of Ventura County and the western portion of Los Angeles County. During her 14 years in the Legislature, Senator Pavley received national acclaim for her work on three historic pieces of climate legislation that established California as a worldwide leader in promoting clean energy and reducing climate pollution. Most recently, she was the author of SB 32, signed by Gov. Jerry Brown on Sept. 8, 2016. It sets a target for California to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030. The law builds upon groundbreaking legislation she co-authored in 2006 as a member of the Assembly, AB 32, which established a target of reducing greenhouse gas emissions to 1990 levels by 2020 – a target the state is on track to meet. Senator Pavley's initial piece of climate legislation, AB 1493, also known as the Clean Car Act in 2002, was the nation's first law to regulate greenhouse gas emissions from automobile tailpipes. That law was later adopted by a dozen other states and ultimately became the basis for new nationwide fuel-efficiency standards announced by President Obama in 2011 that require a fleet-average fuel-efficiency standard of 54.5 miles per gallon by the 2025 model year.

Senator Ben Allen, California State Senate

Senator Allen represents the Westside and South Bay communities of Los Angeles. He chairs the Elections and Constitutional Amendments Committee and the Joint Committee on the Arts, and serves on the Committees on Budget, Natural Resources, Transportation and Housing, and Veterans Affairs. His policy priorities include education, the environment, jobs and the economy, transportation, and political reform. Prior to his election to the Senate in 2014, he was a board member of the Santa Monica-Malibu Unified School District.

Assemblymember Eduardo Garcia, California State Assembly

Assemblymember Garcia proudly represents California's 56th Assembly District, which includes cities and unincorporated communities in eastern Riverside County and Imperial County.

Elected in 2014 Garcia was appointed to chair the Assembly Committee on Jobs, Economic Development, and the Economy where he is still serving. As chair, Garcia is responsible for leading the Assembly's review of policies and legislation related to small business development, international trade, and other state and local economic development related issues. In March of 2015 Garcia was appointed to chair the Select Committee on Renewable Energy Development and Restoration of the Salton Sea. As Chair of the select committee, Garcia will examine the opportunities and challenges surrounding development of renewable energy projects and the implementation of environmental restoration plans of the Salton Sea area.

Other Staff to Senator Pavley and the Select Committee on Climate Change and AB32 Implementation

Jake Levine, Senior Counsel, Office of State Senator Fran Pavley

Jake advises Senator Pavley on issues primarily related to technology and climate change. Jake led the successful campaign to enact sweeping new climate legislation (SB 32) in California. Prior to joining Senator Pavley's team, Levine was Chief of Staff to the President at Opower, a software firm that used big data, behavioral science technology to help consumers take control of their energy use.

Matthew Dumlao, Ph.D., Science and Technology Policy Fellow, Office of Senator Pavley

Dusty Russell, District Representative, Office of Senator Pavley