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Panel 1:

Floyd Vergara, California Air Resources Board

Floyd Vergara is Chief of the Industrial Strategies Division at the California Air Resources Board (CARB). He has been at CARB for nearly 30 years developing a wide range of regulations and policies on mobile and stationary sources. Floyd currently oversees the development and implementation of several of CARB's key climate change and air quality regulatory programs, including Cap-and-Trade; the Low Carbon Fuel Standard; and organic wastes, energy, and oil and gas sectors.

Matthewson Epuna, California Public Utilities Commission

Matthewson Epuna serves as a Program and Project Supervisor at the California Public Utilities Commission (CPUC). He has more than 26 years of extensive engineering experience, leading, and supervising engineering staff on complex and specialized gas pipeline safety assurance inspections and investigations. He has broad knowledge of California and Federal gas pipeline safety rules and regulations – in Transmission Pipeline Design, Construction, Hydrostatic Testing, Operation, and Maintenance activities. He has participated and led high profile pipeline and underground gas storage reservoir failure investigations. Matthewson Epuna had a short-term employment with Four Corners Pipeline Company, a subsidiary of Atlantic Richfield Company (Arco) before joining the CPUC. Matthewson Epuna graduated with a Bachelor of Science degree in Mechanical Engineering with a minor in Petroleum Engineering from California State University in Long Beach, California.

Dorris Chow, California Public Utilities Commission

Dorris Chow serves as a Senior Regulatory Analyst at the CPUC. She has over 16 years of wide range of energy regulatory experience in California Environmental Quality Act, energy efficiency, demand response, and natural gas. Mrs. Chow recently joined the Natural Gas section as a lead analyst on renewable gas and has broad knowledge in cost allocation, cost incentive mechanism, gas baseline quantities and rates. In the past 10 years, Mrs. Chow has been the sole expert on demand response load impact and has performed extensive work on technical issues relating to incentive payment and dispatch strategies for various Demand Response programs. Dorris Chow holds a B.A. in Economics and Environmental Studies from UC Santa Cruz and a MBA from SF State University.

Hank Brady, California Department of Resources Recycling and Recovery

Hank Brady is the SB 1383 Manager for the Department of Resources Recycling and Recovery (CalRecycle). Prior to this role Brady worked as the Chief Legislative Consultant for the department. Before Joining CalRecycle, he served as a legislative aide in the office of Assemblymember Marc Levine and as a capital fellow in the office of State Senator Joe Simitian.

Scott Beckner, California Department of Resources Recycling and Recovery

Scott Beckner is a Supervising Senior Environmental Scientist working on bioenergy and climate change issues for the CalRecycle. He has worked in greenhouse gas (GHG) quantification, lifecycle assessment, solid waste permitting, and extended producer responsibility programs.

Geetika Joshi, California Department of Food and Agriculture

Geetika Joshi oversees the development and implementation of California Department of Food and Agriculture (CDFA) incentive programs that provide financial incentives to California farmers and ranchers to adopt agricultural management practices that reduce greenhouse gas emissions. The programs span the areas of efficient irrigation and soil carbon sequestration on California crop and rangelands, and, reduction of methane and renewable energy generation from dairy and livestock operations. Prior to starting in this role in 2017, she worked on the development of CDFA's Dairy Digester Research and Development Program. She received Ph.D. in Soils and Biogeochemistry from University of California, Davis in 2014.

Panel 2:

Tim Olson, California Energy Commission

Tim Olson has held several management and policy positions at the California Energy Commission, including policy advisor to Commissioners and Manager of the Emerging Fuels and Technology and Transportation Energy Offices. He is a senior policy advisor on transportation fuels and technologies and represents the Energy Commission as a member of several technical advisory committees.

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.

Amy Myers Jaffe, University of California, Davis

Amy Myers Jaffe is a leading expert on global energy policy, geopolitical risk, and energy and sustainability. Jaffe serves as executive director for Energy and Sustainability at University of California, Davis with a joint appointment to the Graduate School of Management and Institute of Transportation Studies (ITS). At ITS-Davis, Jaffe heads the fossil fuel component of Next STEPS (Sustainable Transportation Energy Pathways). She is associate editor (North America) for the academic journal, Energy Strategy Reviews. Prior to joining UC Davis, Jaffe served as director of the Energy Forum and Wallace S. Wilson Fellow in Energy Studies at Rice University's James A. Baker III Institute for Public Policy. Jaffe's research focuses on oil and natural gas geopolitics, strategic energy policy, corporate investment strategies in the energy sector, and energy economics. She was formerly senior editor and Middle East analyst for Petroleum Intelligence Weekly. Jaffe is widely published, including as co-author of "Oil, Dollars, Debt and Crises: The Global Curse of Black Gold" (Cambridge University Press, January 2010 with Mahmoud El-Gamal). She served as co-editor of "Energy in the Caspian Region: Present and Future" (Palgrave, 2002) and "Natural Gas and Geopolitics: From 1970 to 2040" (Cambridge University Press, 2006).

Philip Sheehy, ICF International

Philip Sheehy is a Technical Director at ICF; he works out of the San Diego office. He leads ICF's clean transportation practice with a diverse range of projects in the renewable natural gas market. Philip and his team provide market advisory services with a focus on the low carbon fuel standard (LCFS) market in California and the federal RFS program. His team's work includes strategic analysis, environmental commodity market forecasting, risk assessments, and GHG lifecycle GHG assessments. His clients include utilities, developers, private equity firms, technology providers, and fuel suppliers. He is a member of the Alternative Transportation Fuels and Technologies Committee of the Transportation Research Board; he received his PhD from MIT in physical chemistry and is originally from Kalamazoo, Michigan.

Panel 3:

George Minter, Southern California Gas Company

George Minter is regional vice president of external affairs and environmental strategy for SoCalGas. He is responsible for the company's public affairs, community relations, public policy and energy and environmental affairs functions. Minter is a long-time policy professional specializing in energy and environmental matters, strategic planning, program development, communications and political advocacy. Before re-joining SoCalGas as senior director of policy and environment, Minter was managing principal for L.A.-based public affairs firms Greer/Dailey/Minter and GM Public Affairs from 2000 to 2013. There he managed public policy initiatives and communications programs to approve large energy and land use projects. Minter also served in the capacity as director and manager of a number of other functions for SoCalGas from 1985–2000. Prior to his career at SoCalGas, Minter was a political consultant handling local, state and national political campaigns, responsible for strategy development, campaign management, direct mail and television and radio production. He is a Phi Beta Kappa and honors graduate of the University of California at Berkeley.

Steven Malnight, Pacific Gas and Electric Company

Steven (Steve) E. Malnight is Senior Vice President, Strategy and Policy for PG&E Corporation and Pacific Gas and Electric Company. In this role, Malnight leads a team of dynamic and experienced professionals who develop and implement the company's energy strategy and policy through innovative solutions, partnership integration and public advocacy at the national, state and local level. Malnight holds a bachelor's degree in chemical engineering from the University of Notre Dame and a master's degree in business administration from the Tuck School of Business at Dartmouth. Malnight is also active in national policy and community engagement, where he serves as Chairman of the Board of the Solar Electric Power Alliance, a nationwide organization that supports utility participation in solar activities.

Panel 4:

Mike Silva, CR&R Waste Haulers

Michael Silva, Project Manager/Civil Engineer at CR&R Environmental. More than thirty three years senior level solid waste management experience with responsibility for increasing revenues, efficiencies,

and profits while maximizing customer service, safety, and employee morale. Expertise in technology development and construction management. His team developed the 3 cart fully automated collection system for the City of Temecula, which has since become the "gold standard". Help design and construct the first solid waste processing facility in the country, back in 1992. Has since built several transfer stations and material recovery facilities. Currently in charge of CR&R's anaerobic digestion projects. Building the largest anaerobic digestion plant in the country, handling some 335,000 tons per year and generating in excess of 4 million gallons of renewable carbon negative fuel.

Lyle Schlyer, Calgren Renewable Energy

Lyle Schlyer holds degrees in chemical engineering and law to complement his 45 years of experience in various aspects of the chemical and fuels industries. He has served as President of Calgren Renewable Fuels since 2006. Calgren produces fuel ethanol at is renewable fuels complex in Pixley, California. Because of its efficient design and biogas from an on-site dairy manure digester, Calgren's ethanol currently enjoys the lowest carbon footprint of any ethanol produced in California and arguably the nation. Calgren also sells excess electricity from its two low-emissions cogeneration units to the grid under AB-1613 and to Airgas for on-site liquefaction of biogenic carbon dioxide (CO_2). Aided by a grant from the Energy Commission, Calgren is building a state-of-the-art biodiesel production facility capable of processing brown grease in combination with oil produced during ethanol processing. Regarding SB-1383, Calgren has teamed with eleven local dairies on a biogas cluster project that will include fueling vehicles with RCNG. Mr. Schlyer is also president of Pratt Energy, LLC, which owns and operates a sister facility in Pratt, KS. Prior to his involvement in renewable fuels, Mr. Schlyer practiced chemical engineering for BF Goodrich Chemical Co.; was Patent Counsel and Assistant General Counsel for a petroleum refiner (Tosco Corporation); and served as General Counsel for a petroleum marketer (USA Petroleum Corporation). Mr. Schlyer is a member of the California Bar (inactive) and is a former member of the U.S. Patent Bar.

Gogo Heinrich, City of San Mateo

Gogo Heinrich has over 35 years of experience in the construction industry specializing in architecture, program management, design management, project management, and construction management of large complex projects such as airport terminals, correctional facilities, office buildings, zoo facilities, education facilities and most recently civic buildings and facilities. Responsibilities have included programming, master planning, design, budgeting, scheduling, contract administration, bidding, construction management, project management and agency coordination and reporting.

Neil Black, California Bioenergy, LLC.

Neil Black is president and a co-founder of California Bioenergy LLC ("CalBio"). CalBio was formed 10 years ago, and it is solely focused on dairy digester projects at California dairies. CalBio partners with dairy farmers to turn currently vented dairy methane into a new revenue source. CalBio has worked closely with the dairy industry and regulatory agencies on state programs, incentives and legislation to lead to successful projects. CalBio was involved in the development of the BioMAT, the program to sell electricity to PG&E and SCE, with 90 MWs from dairy digesters and other agricultural projects. Over the past years, CalBio has been focused on generating vehicle fuel from digester methane. CalBio's Kern County cluster, in partnership with Bakersfield dairies, is one of the three pilots of California's Sustainable Freight Action Plan. It is developing dairy clusters to produce pipeline biomethane for vehicle fuel across the San Joaquin Valley. CalBio works closely with and is the recipient of grants from CDFA and the California Energy Commission. Neil has over twenty-five years of senior management

experience. Prior to joining CalBio, Neil was managing principal at GreenOrder, a firm which worked with GE, GM and other large companies, helping them profit from environmental leadership. He was also the CEO of two technology start-ups. Before his years in technology, he was president of The Nation magazine. Neil has an undergraduate degree from Yale University and an MBA from Harvard Business School.

Steve Zurn, Glendale Water & Power

Mr. Zurn has worked for the City for over 30 years, spending most of his career in the Public Works Department where he held a variety of administrative positions and was appointed Director of Public Works in 2003. In 2012 he was appointed General Manager of Glendale Water and Power overseeing all aspects of this full service utility. Steve graduated from UCLA with a Bachelor's Degree in Political Science and from California State University Long Beach with a Master's Degree in Public Administration.

Panel 5:

Rebecca Boudreaux, Oberon Fuels

Trained as a chemist, Rebecca Boudreaux, Ph.D. is an entrepreneurial, technology executive with a unique blend of technical skills and business development expertise. She has served on the management team or Board of Directors of various startup companies in the clean tech, life sciences, high tech, and non-profit sectors. Presently, she is President and Director of Oberon Fuels, a California-based company making DME (dimethyl ether) as a cleaner, alternative to diesel. In her role at Oberon, Dr. Boudreaux leads the customer development and strategic partnering efforts with OEMs, feedstock suppliers, and trucking companies. Additionally, she oversees the regulatory processes for the use of DME as a fuel including EPA Renewable Fuel Standard compliance and ASTM specification development.
Dr. Boudreaux has a broad range of academic and industrial experience, having performed research at MIT, Princeton University, University of Southern Mississippi, Lawrence Livermore National Laboratory, and National Starch and Chemical. She co-founded Intezyne Technologies, which developed polymer-based drug delivery systems to make existing cancer drugs work better, serving as CFO and Board Director for four years. She earned a B.S. in Polymer Science (*magna cum laude*) from the University of Southern Mississippi and a M.S. and Ph.D. in Polymer Science and Engineering from the University of Massachusetts.

Dr. Boudreaux is an invited lecturer around the world, exploring the interface of science, business, and entrepreneurship in the energy and non-profit sectors. She has co-authored seven peer-reviewed publications and is a co-inventor on 12 patents and applications. Dr. Boudreaux is the Chair of the International DME Association and Chair of the ASTM International DME Taskforce.

Bruno Miller, Fulcrum BioEnergy, Inc.

Dr. Bruno Miller is Managing Director of Fuels at Fulcrum Bioenergy, a pioneer in the development of a reliable and efficient process for transforming everyday household garbage into low-carbon transportation fuels including jet fuel and diesel. He is responsible for directing Fulcrum´s fuels activities including sales, logistics, and regulatory affairs. Dr. Miller has more than 15 years of experience in the air transportation industry. As a strategic sourcing manager in the fuel department at Northwest and Delta Airlines, he was responsible for the airline's fuel supply chain in the U.S. Northeast, Latin America and

Africa, including major airports in New York, Boston and Washington D.C. More recently, as Principal of Energy and Environment at Metron Aviation, he analyzed and developed strategies to strengthen the leadership of major global airlines on sustainability and environmental performance. Dr. Miller has been Principal Investigator in a number of projects for the National Academy of Science's Airport Cooperative Research Program (ACRP) and was the co-chairman of the business team of the Commercial Aviation Alternative Fuels Initiative (CAAFI). He holds a Ph.D. in Air Transportation Systems as well as a M.S. and B.S. in Aeronautics and Astronautics and a M.S. in Technology and Policy from the Massachusetts Institute of Technology (MIT).

Rob White, Sierra Energy

Dr. Rob White is the Executive Director of the Sierra Energy Research Park (SERP) and the Area 52 Accelerator, as well as the Chief Strategist for Sierra Energy, a waste gasification and renewable energy company. Named a White House "Champion of Change for Local Innovation", Dr. White has been recognized by regional, national, and international organizations for his work on economic development, regional innovation clusters, and partnership with federal agencies. As a State of California registered Professional Geologist, Dr. White has broad experience in waste management and disposition, environmental engineering, regulations, and risk management. Dr. White's primary role at Sierra Energy is the planning, design and implementation of SERP and Area 52, co-located in Davis, California, and the Zero Waste Innovation Park (ZWIP) located in Yolo County. These research and development facilities support Sierra Energy's efforts to create sustainable energy, while also providing a place for entrepreneurs and startups in the sectors of waste conversion, energy, smart ag, medical instruments, and automation.

Arun Raju, University of California, Riverside

Assistant Research Engineer Arun Raju's work at CE-CERT focuses on renewable fuels, energy systems analysis including techno-economic and life cycle analysis, CO_2 utilization, and optimization of energy conversion pathways. He is currently Director of the Center for Renewable Natural gas (CRNG). He has a Ph.D. in Chemical Engineering from UC Riverside with a focus on gasification and related processes. He has experience in research related to synthetic fuels and chemicals production, and power generation via thermochemical pathways, including waste to energy processes. Before joining CE-CERT, Arun was the Director of Research at Viresco Energy, LLC and later served as the Director of Technology Development at Combustion Associates, Inc.

Jack Brouwer, University of California, Irvine

Professor Brouwer's research interests are in alternative and sustainable energy systems development, electrochemical conversion devices and systems, dynamic simulation and control systems development, turbulent reacting flows, chemical kinetics, and electrochemical reactions with concurrent heat, mass and momentum transfer. Prof. Brouwer is leading the NFCRC and APEP to focus research, education, beta testing, and outreach on high-efficiency, environmentally preferred energy conversion and power generation technology advancement with fuel cell and gas turbine systems as the principal targets. His current research projects address ultra-high efficiency and ultra-low emissions high temperature fuel cell systems, integrated hybrid fuel cell gas turbine systems, renewable power intermittency and integration, battery electric and plug-in hybrid electric vehicle evaluation and infrastructure development, advanced fuel cell and gas turbine dynamic operation, hydrogen and electricity infrastructure development, and power electronics and energy conversion for the smart grid. Prior to joining UCI, Dr. Brouwer was on the faculty at the University of Utah, a senior engineer at Reaction Engineering International, and a staff

scientist at Sandia National Laboratories. Dr. Brouwer holds a Ph.D. in mechanical engineering from MIT with Master and Bachelor of Science degrees in mechanical engineering from UCI.

Panel 6:

John Dannan, Generate Capital

Mr. Dannan serves as the Program Manager for Waste-to-Value at Generate Capital. He has over 14 years of financial markets experience, including 10 years of lending and asset management experience in the energy and infrastructure sectors. Prior to joining Generate Capital, Mr. Dannan founded Energy & Infrastructure Capital, LLC ("EIC"), a Stamford based asset manager focused on debt investments. During this time EIC invested approximately $200 million in US energy and infrastructure debt on behalf of US and international investors. Prior to EIC, Mr. Dannan served as Vice President at Deutsche Asset & Wealth Management where he was responsible for investment strategy, capital raising and transaction execution. Prior to Deutsche, Mr. Dannan worked at Aladdin Capital Management's Infrastructure Debt Business, and Dresdner Kleinwort's infrastructure financing, M&A and loan workout teams. Mr. Dannan received a Bachelor of Science (Hons) in Economics with Accounting from Loughborough University, England.

Ben Vitali, Equilibrium Capital Water and Waste

Ben is a Principal at Equilibrium, focusing on Equilibrium's wastewater, water and energy strategies. He is a Principal on Equilibrium's Wastewater Opportunity Fund, member of the Fund's Investment and Management Committees. Ben has 30 years of technical and investment management experience in the wastewater, renewable energy, agriculture, and technology sectors. He is an active member of both the Bioenergy Association of California and American Biogas Council. Ben holds a M.M. from Northwestern University's Kellogg School of Management and a B.S. degree in Computer and Electrical Engineering from Purdue University.

Little Known Fact: Ben was charged by a grizzly bear in Montana's Glacier National Park.

Reneé Webster-Hawkins, California Pollution Control Financing Authority

Reneé Webster-Hawkins has served as the Executive Director of the California Pollution Control Financing Authority since 2013, an independent public agency chaired by the State Treasurer dedicated to steering private capital and public funds towards environmental clean-up projects through conduit bond issuances and credit enhancement, and offering creative economic development and financing mechanisms tailored to specific markets and policy objectives. Ms. Webster-Hawkins has served as an environmental and land use attorney and general counsel in both the public and private sectors – including Assistant Chief Counsel at the Energy Commission – and as an appointed official at several state agencies. In those roles, she has been at the drawing table of many successful public-private partnerships to advance California's environmental and economic policy goals, including collaborations between state agencies, local agencies, business, financial and non-governmental organizations. Ms. Webster-Hawkins graduated from Stanford Law School where she was selected as a Public Interest Law Fellow.

Panel 7:

Cliff Gladstein, Gladstein, Neandross and Associates

Clifford E. Gladstein is the founder and President of Gladstein, Neandross & Associates (GNA), a Santa Monica based environmental affairs consulting firm that specializes in air quality, energy and transportation policy generally and specifically in the commercialization of alternative fuel and electric vehicles, deployment of emission and petroleum consumption reduction strategies and market development of advanced, renewable clean energy generation technology. Mr. Gladstein is the founder of the Interstate Clean Transportation Corridor (ICTC), the nation's first and most successful public-private partnership to accelerate the commercialization of clean, alternative fuel vehicles in the interstate movement of goods and has worked on the development and implementation of similar clean fuel corridors in Texas and Pennsylvania. Mr. Gladstein has used his knowledge and experience to develop and implement clean transportation and power generation technology deployment and incentive programs for a diverse set of clients, including the Environmental Defense Fund, American Honda, the Ports of Long Beach and Los Angeles, Hydrogen Energy California, Air Products, the Port Authority of New York and New Jersey, Southern California Gas Company, the Department of Energy Clean Cities Program, PG&E, the South Coast Air Quality Management District, the Natural Resources Defense Council, the City of New York Department of Transportation, and dozens of other public agencies, private firms, public utilities and non---governmental organizations. In recent years Mr. Gladstein has become a leader in the effort to increase the use of renewable gases in power production and in heavy-duty transportation, consulting with waste management companies, food processors, wastewater treatment agencies, landfill gas facility operators and diary biogas project developers on strategies to capture fugitive methane and put it to beneficial reuse. Mr. Gladstein is on the board of the Bioenergy Association of California, is the President of the board of the California League of Conservation Voters Education Fund, and is the only person to have served as board president of both Heal the Bay and the Coalition for Clean Air, two of southern California's premier grassroots environmental organizations. He is a graduate of Duke University, holds three graduate degrees from the University of Texas, Austin and the University of California, Los Angeles, and teaches Leadership in Air Quality Policy at UCLA's Institute for Environment and Sustainability.

José Castañeda, Cummins-Westport

As the Business Development Director for Cummins Westport, Jose is tasked to work specifically in California related initiatives as well as leading marketing and sales teams in North America for the CWI joint venture. Jose has held several roles during his tenure with Cummins including corporate strategy within Cummins Power Generation, new product marketing within the High Horsepower Business, and leading a direct sales team in the aftermarket On-Highway sector. Prior to joining Cummins Jose worked in the automotive industry and obtained an MBA from Thunderbird School of Global Management and his undergraduate studies at Southern Methodist University with a degree in Political Science.

Sam McLaughlin, Volvo Group of North America

Sam McLaughlin is currently an External Research Manager within Advanced Technology and Research for Volvo Group Truck Technology located in Hagerstown, Maryland, 70 miles outside Washington DC. In his current role, he is responsible for establishing both public and private research collaborations within North America for the Volvo Group. He has worked extensively in product development and project management with diesel engine, heavy-duty vehicles, innovative processes and driveline design.

Sam has been an active member of the Society of Automotive Engineers for over 30 years and is a coordinator of research activity for Universities within the United States for Volvo. Recently he obtained a “Renewable Energy Certificate” from the University of Colorado Boulder.

Sam holds a M.S. degree in engineering from Penn State University and is certified as a Professional Engineer (P.E.) and Project Management Professional (PMP), in addition to holding a Commercial Driver’s License with a tanker endorsement. In 2016 Sam was awarded the Penn State College of Engineering ‘Outstanding Engineer Alumnus’ award.

Dean Saito, Manager, South Coast Air Quality Management District

Dean Saito is the Manager of the On-Road Mobile Source Strategies in the Mobile Source Division of the Planning & Rules Division of the South Coast Air Quality Management District (SCAQMD). Since 2002 the unit has been responsible for the development and implementation of mobile source strategies as they pertain to plan development and rule implementation. The unit’s primary responsibility has been the implementation of Rule 1100 series rules for fleet operations. The unit is also responsible for the alternative fueling infrastructures and the development of a light duty scrap and replacement program for high emitting vehicles. In May 2007, Mr. Saito was appointed by the Senate Rules Committee to be the air quality expert on the Inspection & Maintenance Review Committee which oversees California’s Smog Program.

Prior to joining the SCAQMD, Mr. Saito was Chief of the Smog Check Operations Branch with the Bureau of Automotive Repair for 3 years and prior to that he was with CARB for 25 years. While at CARB, Mr. Saito was manager of the Liaison Unit within the Office of Air Quality Planning.