State of California AIR RESOURCES BOARD

Resolution 09-20

February 26, 2009

Agenda Item No: 09-2-5

WHEREAS, the Legislature has passed and the Governor has signed the California Global Warming Solutions Act of 2006 (AB 32), which designates the Air Resources Board (ARB) as the State agency charged with monitoring and regulating sources of emissions of greenhouse gases that cause global warming;

WHEREAS, AB 32 further directs the Board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions;

WHEREAS, section 38591(d) of the Health and Safety Code directs the Board to appoint an Economic and Technology Advancement Advisory Committee to advise the Board on activities that will facilitate investment in and implementation of technological research and development opportunities, including, but not limited to, identifying new technologies, research, demonstration projects, and funding opportunities; developing state, national, and international partnerships and technology transfer opportunities; and identifying and assessing research and advanced technology investment and incentive opportunities that will assist in the reduction of greenhouse gas emissions;

WHEREAS, section 38591(d) of the Health and Safety Code further provides that the Economic and Technology Advancement Advisory Committee may also advise the Board on state, regional, national, and international economic and technological development related to greenhouse gas emissions;

WHEREAS, the Board has previously appointed members with a broad range of relevant expertise to the Economic and Technology Advancement Advisory Committee;

WHEREAS, five (5) previously appointed members to the Economic and Technology Advancement Advisory Committee have terminated their membership on that Committee;

WHEREAS, it is necessary to appoint replacement members to the Economic and Technology Advancement Advisory Committee to fill the vacated positions;

WHEREAS, it is, also, advantageous to add an additional position to the Committee to represent the labor sector;

BE IT RESOLVED that the Board hereby appoints the following individuals to serve on the Economic and Technology Advancement Advisory Committee:

Dan Adler, California Clean Energy Fund Jim Beno, California Labor Federation Chris Busch, Ph.D., Center for Resource Solutions Roland Hwang, Natural Resources Defense Council Ralph Moran, BP America Hank Ryan, Small Business California

> I hereby certify that the above is a true and correct copy of Resolution 09-20, as adopted by the Air Resources Board.

/s/

Monica Vejar, Clerk of the Board

Bio for Dan Adler

Dan Adler is President of the California Clean Energy Fund (CalCEF). Prior to joining CalCEF, Mr. Adler was a senior analyst in the Division of Strategic Planning at the California Public Utilities Commission, where he was responsible for the design and implementation of California's Renewables Portfolio Standard and was senior staff for climate change policy. In addition to energy issues, Mr. Adler has professional experience in international trade policy and socially responsible investment. He has a B.A. in Political Science from the University of California at Berkeley and an M.A. in Public Policy from Harvard University.

Bio for Jim Beno

Jim Beno is the Directing Business Representative of District Lodge 190 of the International Association of Machinists and Aerospace Workers and a Vice President of the California Labor Federation, AFL-CIO, which represents two million workers in California. Mr. Beno chairs the Green Jobs Labor Roundtable, an AB32 Working Group of the California Labor Federations Executive Committee. This committee was established to, among other things, explore the emerging technologies of the new Green economy and the impact and challenges this presents to our workforce in California and identifying the skill sets needed by workers in the new emerging green industries. Mr. Beno has worked for the International Association of Machinists and Aerospace Workers (a.k.a. Machinists Union) for over thirty years. He has held positions ranging from the chief financial officer of a local union to his current position as Director of one of the largest Districts in the Machinists Union in the United States. District 190 is comprised of thirteen Local Unions representing Machinists, Mechanics and Technicians working in the Automotive, Aerospace, Manufacturing and Transportation Industries in California and Nevada. Mr. Beno holds a B.S. Degree in Construction Engineering Technology from California State University Sacramento.

Bio for Chris Bush

Chris Busch, Ph.D., is Director of Policy at the Center for Resource Solutions, where he promotes effective policy responses to the interrelated challenges of promoting clean energy innovation and reversing global warming. Previously, Dr. Busch held the position of Climate Economist in the Union of Concerned Scientists' Climate Program. From this post, he helped shape the group's positions on cap-and-trade program design and served as technical lead on these issues in UCS' advocacy on both implementation of California's Global Warming Solutions Act (Assembly Bill 32) and development of the Western Climate Initiative. In 2006, Chris co-authored the report Managing Greenhouse Gas Emissions in California while he was with UC Berkeley's California Climate Change Center. Prior to this, he served as Senior Research Associate in Lawrence Berkeley National Laboratory's International Energy Studies Group and worked in the Lab's Appliance and Lighting Standards Group. Dr. Busch holds two graduate degrees from the University of California,

Berkeley: a Ph.D. in environmental economics from the Department of Agricultural and Resource Economics and a master's degree in public policy from the Goldman School of Public Policy.

Bio for Roland Hwang

Roland Hwang is the Natural Resources Defense Council's Vehicles Policy Director and works on sustainable transportation policies. Mr. Hwang has been with NRDC's San Francisco office since October 2000. He is an expert on clean vehicle and fuels technologies. He serves on various advisory panels, including for the AB 118 Alternative and Renewable Fuels and Vehicles Program, the California Hydrogen Highway Network Advisory Panel, the Automotive X Prize, and the Western Governors' Association Transportation Fuels for the Future Initiative. He is the author or contributing author of eleven NRDC reports. Before joining NRDC, Mr. Hwang was the Director of the Transportation Program for the Union of Concerned Scientists (UCS) in the Berkeley, California office. Mr. Hwang has also worked for the United States Department of Energy at Lawrence Berkeley National Laboratory (LBNL) in Berkeley, California and the California Air Resources Board (CARB) as an Air Pollution Engineer. Mr. Hwang received a Bachelors degree from the University of California at Davis in 1986 and Masters of Science in Mechanical Engineering from the same institution in 1988. He received a Masters degree in Public Policy from the University of California at Berkeley in 1992.

Bio for Ralph J. Moran

Ralph J. Moran is BP America's Director of West Coast Climate Change Issues. In this role, Mr. Moran is accountable for the development, management, and coordination of climate-related regulatory activities and is the BP lead representative with state and local governments on climate change policy development. Previously, Mr. Moran was BP's Director of Environmental Affairs in Washington D.C. In this previous role Mr. Moran supported BP's Western Hemisphere business segments and Communications and External Affairs group by facilitating engagements with non-governmental organizations and by managing environment-related policy issues – including federal climate change policy. Mr. Moran's previous work experience includes 20 years in both the upstream and downstream segments of the oil industry including oil field formation evaluation, site remediation and government relations. Mr. Moran holds B.S. and M.S. Degrees in Petroleum Engineering from the University of Southern California.

Bio for Hank Ryan

Hank Ryan is currently with Efficiency Data and Development representing Small Business California. Mr. Ryan has been the lead intervenor for On Bill Financing (OBF) in the CPUC Energy Efficiency proceedings since 2004 and works closely with California utilities currently rolling out OBF programs. He serves as Executive Director for Small Business California and is a Board Trustee for the National Small Business Association. He has been active in the commercial energy efficiency field since 1981 as an energy auditor and has operated several successful small businesses including an award winning restaurant. Mr. Ryan currently serves as the Program Manager for an EPA grant for Small Business California with a focus on Food Service Equipment and On Bill Financing.