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California and China: Leadership for a Low Carbon Future

September 11, 2018

Toll Room, Alumni House | University of California, Berkeley

Background

Two of the world's leading economies, California and China, share a determination to address climate risk and other sustainability challenges with bold commitments to policy technology innovation. Finding themselves at the forefront of efforts to secure long-term prosperity for their own people and those who would follow their example, the two have established a multi-faceted alliance for progress toward a low-carbon future. Several leading agencies of the California state government are working with Chinese ministries to share the state's decades of experience on innovative energy and environmental policy. NGOs on both sides have established broad-based dialog on common problems and collaborative solutions. Finally, universities and research institutions in China and California are working intensively together to deliver the evidence and innovations needed to support a new generation of lower carbon economic progress.

Co-hosted by the UC Berkeley Center for Economics, Resources, and Innovation (CERI) and the Berkeley-Tsinghua Joint Research Center on Energy and Climate Change (BTJRC), this half-day conference will share the California–China the climate partnership experiences of policy makers, researchers, and NGOs. Lessons learned can reaffirm progress across this dynamic alliance for sustained and inclusive prosperity.

California and China: Leadership for a Low Carbon Future

September 11, 2018 | 1:00–4:00 pm
Toll Room, Alumni House
University of California, Berkeley

Agenda

1:00 pm Welcome and Introductions

- Fan Dai, Special Advisor, Office of the Governor of California
- Lynn Price, Senior Advisor, Lawrence Berkeley National Laboratory

1:15 *Group photo*

Part I: Shared Policy Challenges and Opportunities

1:30 California and PRC Perspectives

- Moderator: Matt Baker, Program Officer, William & Flora Hewlett Foundation
- Cliff Rechtschaffen, Commissioner, California Public Utilities Commission
 - Wang Zhongying, Deputy Director-General, Energy Research Institute, NDRC
 - Emily Wimberger, Chief Economist, California Air Resources Board
 - Dr. Zhang Yongsheng, Vice Director-General, State Council Development Research Center
 - Michael Murza, Law and Policy Advisor to the Chair, California Energy Commission

2:30 *Break*

Part II: Recent Advances in Policy Research

2:45 Insights from the Berkeley-Tsinghua Partnership

- Moderator: Chuck Goldman, Staff Scientist, Lawrence Berkeley National Laboratory
- Zhao Yongqiang, Deputy Director, China National Renewable Energy Center
 - Jiang Lin, Professor, Nat Simons Presidential Chair, LBNL/UC Berkeley
 - Isha Ray, Professor, UC Berkeley
 - Hu Junfeng, Professor, North China Electric Power University
 - David Roland-Holst, Professor, UC Berkeley
 - Carolyn Szum, Program Manager, Lawrence Berkeley Laboratory

3:45 **Wrap-up: The Emerging CA/China Partnership**

4:00 **Adjourn**

Speaker Bios

Fan Dai, Special Advisor, Office of the Governor of California

Fan Dai is Special Advisor to California Governor Edmund G. Brown. Prior to joining the Governor's office, she worked as a Climate Change Advisory in the Office of the Secretary at the California Environmental Protection Agency, and as a Specialist on international business and development for the California Governor's Office of Business and Economic Development. From 2013-2014, she was a Research Fellow with Lawrence Berkeley National Laboratory's China Energy Group, where her research focused on Energy Efficiency Governance, U.S.-China Clean Energy Partnership, the Carbon Cap-and-Trade Program in California and what China can learn from California's program. She received an MPA and LLB from Beijing Forestry University, a PhD in Environmental Policy at the College of Environmental Science and Forestry, State University of New York, and a LLM from the Berkeley School of Law, University of California.

Lynn Price, Senior Advisor, Lawrence Berkeley National Laboratory

Lynn Price is a Senior Advisor for the International Energy Analysis Department and the China Energy Group in the Energy Analysis and Environmental Impacts Division, Energy Technologies Area, of Lawrence Berkeley National Laboratory. She has been a member of the Intergovernmental Panel on Climate Change, which won the Nobel Peace Prize in 2007, since 1994 and was a lead author of the IPCC's Second, Third, Fourth, and Fifth Assessment Reports on Mitigation of Climate Change. Ms. Price has provided technical and policy-making assistance related to energy efficiency and climate change mitigation on a variety of projects since the early 1990s for the U.S. Department of Energy, U.S. State Department, U.S. Environmental Protection Agency, World Bank, United Nations Industrial Development Organization, U.S. Agency for International Development, California Energy Commission, California Air Resources Board, Energy Foundation China, ClimateWorks Foundation, Hewlett Foundation, and Oak Foundation, Bloomberg Philanthropies, and others. She has a MS in Environmental Science from the University of Wisconsin-Madison.

Session I: Shared Policy Challenges and Opportunities

Matt Baker, Program Officer, William & Flora Hewlett Foundation

Matt Baker is a Program Officer in Environment at the William and Flora Hewlett Foundation. He helps develop and implement grantmaking strategies for climate and energy, and collaborates with environmental leaders and others in the public and private sectors to achieve the foundation's goals to reduce greenhouse gases and advance clean energy. Formerly commissioner with the Colorado Public Utilities Commission, Matt worked to regulate and help set rates for the state's electric and gas investor-owned utilities and to implement new energy policies. Prior to that, Matt founded and served as executive director of Environment Colorado from 2000 to 2008. He helped pass 36 clean energy laws and led a campaign for the passage of the Renewable Energy ballot initiative, among other activities. Matt has a bachelor's degree in history from the Pennsylvania State University. He has served as a member of Colorado's Pollution Prevention Advisory Board and as a vice-chairman of the Transit Alliance. He was named Wind Energy Advocate of 2004 by the American Wind Energy Association and received the 2005 Wirth Chair Sustainability Award for advocacy from the University of Colorado Denver. He served as the vice-chairman of the National Association of Regulated Utilities Commissions, Committee on Natural Gas.

Cliff Rechtschaffen, Commissioner, California Public Utilities Commission

Clifford Rechtschaffen was appointed to the California Public Utilities Commission by Governor Jerry Brown in January 2017. Prior to this appointment, he served as a senior advisor to Governor Brown from 2011 to 2017, where he worked on climate, energy, and environmental issues. In 2011 he served as acting director of the California Department of Conservation. From 1993 to 2007, he taught environmental law, directed the environmental law program, and co-founded the Environmental Law and Justice Clinic at Golden Gate University School of Law. In 2005 he was a Fulbright Scholar at the University of Ljubljana in Slovenia. From 1999 to 2010 he was a volunteer mediator with the U.S. District Court, Northern District of California. He is the author of several books and numerous articles on environmental law and policy. He was a deputy attorney general in the Environment Section of the California Attorney General's Office from 1986 to 1993, a Reginald Heber Smith Community Lawyer Fellow at the Marin County Legal Aid Foundation from 1985 to 1986, and a law clerk for the Honorable Thelton Henderson, U.S. District Court, Northern District of California, from 1984 to 1985. He is a graduate of Yale Law School and Princeton University.

Wang Zhongying, Deputy Director-General, Energy Research Institute, NDRC

Wang Zhongying is Deputy Director-General of the Energy Research Institute of the National Development and Reform Commission (NDRC), a national research organization that conducts comprehensive studies on China's energy issues. He is also a Professor and Director of the China National Renewable Energy Center (CNREC), where he is focused on international cooperation projects in renewable energy. In addition, he serves as Executive director of the China Rural Energy Industry Association, China Energy Society, and the China Biogas Society, and Vice Secretary-General of the Rural Energy Committee of China Renewable Energy Society, the China Renewable Energy Association, the Renewable Energy Industry Committee, and the Chinese Renewable Energy Industries Association.

Emily Wimberger, Chief Economist, California Air Resources Board

Emily Wimberger is the chief economist at the California Air Resources Board, where she leads the economic analysis of California's climate change and criteria pollution regulations and policies. Previously, Emily served as a researcher at the University of California Center for Energy and Environmental Economics at UC Santa Barbara and as an Economics Fellow at the California Air Resources Board, where her research focused on carbon market design and vehicle emission reduction programs. Emily received her PhD in Agriculture and

Resource Economics from the University of California Davis and her bachelor's degree in Energy, Environmental, and Mineral Economics from Penn State.

Dr. Zhang Yongsheng, Vice Director-General, State Council Development Research Center

Dr. Zhang Yongsheng is a Vice Director-General and Senior Research Fellow and Chief Expert on Climate Change and Green Growth with the Development Research Center of the State Council, P.R. China, and a Visiting Professor at Renmin University of China. His research interests mainly focus on development economics, climate change, and structural reforms in China. He is the author of several influential policy reports, including *Seizing the Opportunity of Green Development in China*, a supporting report to the World Bank/DRC *China 2030* joint report. In recent years, he has been conducting research on climate change and green growth, as well as on how to achieve the paradigm shift of development in China—especially on how to accelerate the development in poor regions through green transformation. He holds a PhD in Economics from Renmin University.

Michael Murza, Law and Policy Advisor to the Chair, California Energy Commission

Michael Murza is the Law and Policy Advisor to Chair Robert Weisenmiller at the California Energy Commission, where he works to design and implement the California-China Clean Technology Partnership, with a focus on energy efficiency in buildings and connecting early-stage clean tech research and development with international incubators and clean energy investors. He has also been active in developing and implementing a strategy for doubling energy efficiency throughout California by 2030 as required by SB 350. Before joining the California Energy Commission, Michael previously worked for the California Environmental Law and Policy Center, and the Environmental Defense Fund. He holds a JD from UC Davis School of Law, and an AB in Psychology and BA in Philosophy from the College of Charleston.

Session II: Insights from the Research Collaboration between UC Berkeley and China

Chuck Goldman, Staff Scientist, Lawrence Berkeley National Laboratory

Chuck Goldman is a staff scientist since 1982 in the Energy Analysis and Environmental Impacts Division at Lawrence Berkeley National Laboratory, a Department of Energy (DOE) national laboratory. He works on electricity markets and policy issues for DOE's Offices of Electricity Delivery and Energy Reliability and Energy Efficiency and Renewable Energy. Mr. Goldman has published ~175 articles and reports on utility integrated resource planning, energy efficiency policy, programs, and technology analysis, design and evaluation of innovative DSM and demand response programs, dynamic pricing, coordination of energy efficiency and demand response, Smart Grid implementation issues, competitive bidding for supply and demand-side resources, and energy service company (ESCO) industry and market trends. He is currently Principal Investigator supporting the DOE technical assistance effort to state regulators on energy efficiency policy, programs, utility/regulatory business models, and grid modernization implementation issues. He also is the technical team lead for Institutional Support projects in the DOE's Grid Modernization Initiative and Grid Management Lab Consortium (GMLC). He holds an M.S. degree from the University of California Berkeley, Energy and Resources Group.

Zhao Yongqiang, Deputy Director, China National Renewable Energy Center

Zhao Yongqiang is deputy Director and Research Assistant with the China National Renewable Energy Center (CNREC). Mr. Zhao Yongqiang holds the position of research assistant of Renewable Energy Development Center of ERI of NDRC and the position of Assistant of Director of CNREC. From 2002 to 2004 he studied energy policy at the School of Public Policy and Management, Tsinghua University, where he received a Master Degree of Management. From 1996 to 2001, study in School of Energy and Power Engineering of Xi'an Jiaotong University for Thermal Energy and Power Engineering and received Bachelor Degree.

Jiang Lin, Professor, UC Berkeley and Nat Simons Presidential Chair, Lawrence Berkeley National Laboratory

Dr. Jiang Lin is a Professor at the Department of Agricultural and Resource Economics at the University of California at Berkeley. He also serves as the Nat Simons Presidential Chair in China Energy Policy at the Lawrence Berkeley National Lab (Berkeley Lab), where he is a Staff Scientist in the China Energy Group. His research is focused on energy and climate policy, energy and emissions pathways, electricity market and planning, low-carbon economy transition and appliance efficiency issues in China. He is a co-Director of the Berkeley-Tsinghua Joint Research Center on Energy and Climate Change (BTJRC), a collaborative initiative between Berkeley Lab, the UC Berkeley, and Tsinghua University. Jiang formerly served as director of the Energy Foundation's China Sustainable Energy Program and senior vice president for strategy and analysis. Jiang holds a PhD in Demography from UC Berkeley, an MS in Population Studies and BS from the Department of Cybernetics Engineering from Xi'an Jiaotong University, China.

Isha Ray, Professor, UC Berkeley

Isha Ray joined the faculty of UC Berkeley's Energy and Resources Group in 2002. Professor Ray's research interests are water, sanitation and development; water and gender; technology and development; and common property resources. Her research projects focus on access to water and sanitation for the rural and urban poor, and on the role of technology in improving livelihoods. She teaches courses on research methods in the social sciences, water and development, technology and development, and community-driven development. In addition to research and teaching, she has extensive past and ongoing experience in the non-profit sector on sustainable development, water, and gender equality. She has a BA in Philosophy, Politics and Economics from Somerville College, Oxford University, and a PhD in Applied Economics from the Food Research Institute at Stanford University. She is the Co-Director of the Berkeley Water Center and a Faculty member of the Institute for South Asia Studies.

Prof. Hu Junfeng, Professor, North China Electric Power University

Dr. Hu Junfeng is a professor at the School of Economics and Management Administration at North China Electric Power University (NCEPU), China. His current research focuses on energy economics, electricity markets, and electricity system modeling. He also serves as the director of the Electricity Research Center at the ChangCe Thinktank. Dr. Hu was a lead analyst on a National Energy Administration project examining the costs and benefits of GHG mitigation policies, and for the twelfth five-year supply plan for the Chinese power sector. He holds a PhD in Technical Economics and Management from NCEPU, and an MS in Management Science and BS from the School of Economics and Management at Harbin Engineer University, China.

David Roland-Holst, Professor, UC Berkeley

Dr. David Roland-Holst is a professor of agricultural and resource economics in the College of Natural Resources. He is an expert on the Chinese economy, international development, and environmental economics. Roland-Holst has authored six books and more than 100 professional journal articles and book chapters. He has also served in academic posts in the United States, Europe, and Asia, and conducted research in more than 40 countries, working with such institutions as the Asian Development Bank, Inter-American Development bank, Organization for Economic Cooperation and Development (OECD), World Bank, and several United Nations agencies, as well as governments in Asia, Latin America, Europe, Africa and the United States. He holds a Ph.D. in economics from UC Berkeley.

Carolyn Szum, Program Manager, Lawrence Berkeley National Laboratory

Carolyn Szum is a Program Manager with Lawrence Berkeley National Laboratory (LBNL), where she heads the US-China Clean Energy Research Center Building Energy Efficiency (CERC-BEE) Integrated Team on Policy and Markets—a five-year initiative to catalyze investment in building energy efficiency technologies in the United States and China through increased data transparency, availability of benchmarking and auditing tools; and access to financing. Prior to joining LBNL, Ms. Szum was a Consultant at ICF International, where she led development and deployment of the first online comparative building energy performance benchmarking tool for China, modeled after the ENERGY STAR® benchmarking tool. Ms. Szum has an MA in International Relations from The Fletcher School of Law and Diplomacy at Tufts University, and a BA in International Studies and Business from Colby College.