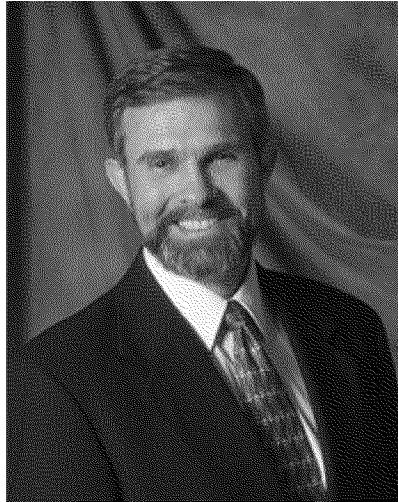


## California Carbon Capture and Storage Panel Members

### Carl Bauer

Carl Bauer was appointed 2005 after serving as Director of NETL's Office Systems, and Director of Management for Under his leadership, the international outreach and its role as the key national challenges of producing extended its expertise into such as electricity delivery buildings, appliances, and



NETL Director in August NETL Deputy Director, of Coal and Environmental NETL's Office of Product Environmental Management. laboratory expanded its collaboration, strengthened laboratory addressing the and using fossil energy, and new areas of investigation, and more energy-efficient vehicles.

In 2007, Bauer received the prestigious Laboratory Director of the Year award from the Federal Laboratory Consortium for Technology Transfer and was the sole recipient of the Washington Coal Club's Annual Achievement Award for significant leadership and contributions in the energy arena. He has served in other capacities at NETL, including director of the Office and Coal and Environmental Systems, where he led efforts in coal and environmental research, and as director of the Office of Product Management for Environmental Management, where he directed the development and demonstration of hazardous and radioactive waste cleanup technologies. Bauer has also held a number of positions at DOE headquarters including: director of the Division of Work for Other Agencies; director of the Idaho and Chicago Environmental Restoration Operations Division; acting director of the Environmental Management Office of Acquisition Management; and director of the Office of Technology Systems.

Prior to joining the Department of Energy team, Bauer served as director of Engineering Support and Logistics, Naval Sea Systems Command, Department of Defense; vice president and general manager of Technology Application Inc.; and vice president, Ship Systems and Logistics Group, Atlantic Research Corporation.

Bauer earned a Master of Science in nuclear power engineering from the U.S. Naval Academy's Naval Nuclear Power Postgraduate Program in 1972 and a Bachelor of Science in marine engineering/oceanography in 1971. He has completed postgraduate courses at the Wharton School of Business and George Washington University, and executive management training at Harvard University's John F. Kennedy School of Government.

## Sally Benson



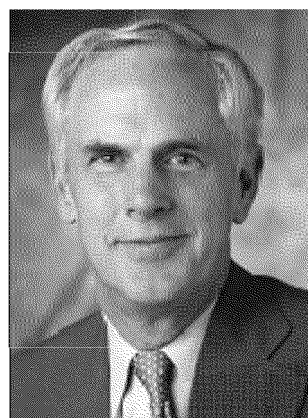
Sally M. Benson was appointed Director of Stanford University's Global Climate & Energy Program (GCEP) in January 2009 after holding the Executive Director post since March 2007. She is a Professor (Research) in the Department of Energy Resources Engineering (ERE) in the School of Earth Sciences, and has been a member of Stanford's faculty since 2007. Her research group in ERE investigates fundamental characteristics of carbon dioxide (CO<sub>2</sub>) storage in geologic formations as a means of climate change mitigation. She teaches courses on carbon dioxide capture and storage and greenhouse gas mitigation technologies.

Prior to joining GCEP, Benson worked at Lawrence Berkeley National Laboratory (LBNL), serving in a number of capacities, including Division Director for Earth Sciences, Associate Laboratory Director for Energy Sciences, and Deputy Director for Operations. A ground water hydrologist and reservoir engineer, Benson has conducted research to address a range of issues related to energy and the environment. For the past 10 years, she has studied how to reduce greenhouse gas emissions by capturing carbon dioxide from power plants and pumping it into deep underground formations for permanent sequestration. Benson was a coordinating lead author on the influential 2005 Intergovernmental Panel on Climate Change (IPCC) Special Report on Carbon Dioxide Capture and Storage. Her research interests also include technologies and energy systems for a low-carbon future, groundwater quality and remediation, biogeochemistry of selenium, and geotechnical instrumentation for subsurface characterization and monitoring.

Benson graduated from Barnard College at Columbia University in 1977 with a bachelor's degree in geology. She completed her graduate education in 1988 at the University of California, Berkeley, after receiving master's and doctoral degrees, both in materials science and mineral engineering. The author or co-author of over 160 scientific publications, Benson is a member of the American Geophysical Union, the Society of Petroleum Engineers, the American Association for the Advancement of Science, and the American Association of Petroleum Geologists.

## John Bryson

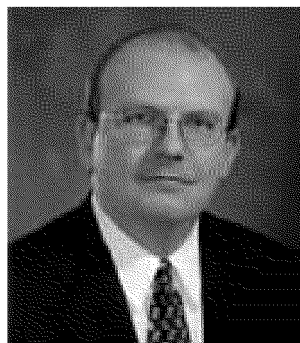
John Bryson is the retired Chairman of Edison International, the parent company of Southern California Edison and Edison Mission Group, where he served as Chairman and CEO from 1990 to 2008.



Bryson is a senior advisor to KKR, a director of The Boeing Company, The Walt Disney Company and Miles Electric Vehicles, Inc, and a member of the Deutsche Bank Americas Advisory Board. He serves as co-chairman of Pacific Council on International Policy (PCIP) and the Electric Drive Transportation Association (EDTA). He is a trustee of California Institute of Technology and a director of W. M. Keck Foundation, and the Public Policy Institute of California (PPIC). He previously served on a number of educational, environmental and other nonprofit boards, including as chairman of the California Business Roundtable and as a trustee of Stanford University.

Before joining Edison, Bryson was a partner in the law firm of Morrison and Foerster. He served as president of the California Public Utilities Commission from 1979 to 1982, and as chairman of the California State Water Resources Control Board from 1976 to 1978. Following law school, he was a co-founder and attorney for the Natural Resources Defense Council (NRDC). He is a graduate of Stanford University and Yale Law School.

## Kipp Coddington



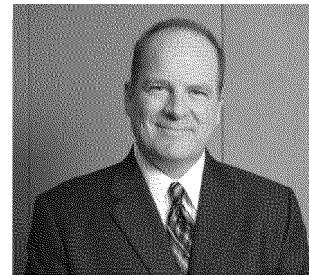
Kipp Coddington is a leading environmental lawyer and a partner in the newly established environmental, climate change and energy law firm, Mowrey Meezan Coddington Cloud LLP with offices in Atlanta and Washington, D.C. Kipp Coddington is listed in Best Lawyers in America and Chambers USA as a leading climate and energy lawyer. He represents clients in climate change transactions and provides advice under various carbon dioxide regulatory schemes in the US and abroad. He represents investors in and developers of energy infrastructure projects around the world, including those arising under the Kyoto Protocol and transactions involving carbon capture and storage (CCS).

He represents numerous policy and transactional clients in CCS matters. Until November 2009 Coddington was a partner with the law firm Alston + Bird where he led the climate change and carbon management group.

He received a BS in Chemical Engineering from Purdue University, and a JD from Georgetown University.

## John King

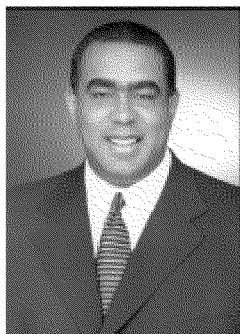
Dr. King currently serves as chairman of the North American Carbon Capture and Storage Association (NACCSA), a nonprofit organization of companies that support the development of a sustainable carbon dioxide (CO<sub>2</sub>) capture and storage (CCS) industry in the United States and Canada. The members of the association include companies involved in developing commercial processes that seek to mitigate atmospheric emissions through CCS, and specialists engaged in the technical, commercial, financial and developmental aspects of CCS activities in Northern America.



Over the past few years, NACCSA member companies have actively participated in numerous CCS projects and pilots around the world, including California. NACCSA member companies have designed and constructed some of the largest CO<sub>2</sub> pipelines in the world and have decades of experience in operating hundreds of miles of CO<sub>2</sub> pipelines and injection wells. NACCSA companies are also leaders in commercializing the transactions that accompany and support greenhouse gas (GHG) mitigation and reduction.

Dr. King's background includes several years of environmental research and development for Shell Oil Company and in conjunction with industry associations. He also has served in environmental, safety and CO<sub>2</sub> management roles in various segments of the oil and gas business for both refining, and exploration and production. In addition to his role as chairman of NACCSA, King is currently the Environmental Implementation Manager for Royal Dutch Shell, and is responsible for driving environmental strategy and sustainable performance improvement for the company worldwide. Dr. King joined Shell in 1990 after completing a BS in Energy Engineering from Caltech and a PhD in Chemical Engineering from Louisiana State University.

## **Kevin Murray**



Senator Kevin Murray is the Managing Partner in The Murray Group, a legal and consulting firm specializing in Public Policy and Entertainment.

Prior to founding The Murray Group, Murray was Senior Vice President at the William Morris Agency, the world's largest and most diversified talent agency. Murray re-joined the agency in January 2006 after serving twelve years in the California State Legislature. Murray started with WMA in 1982 in the famous William Morris mailroom and rose to be an agent in the Music Division. Senator

Murray left WMA in 1989 to embark on what would become a highly successful legal and political career.

Senator Murray, who retired from the California Senate, in 2006, was first elected in 1994 to the California Legislature representing the 47th Assembly District. After serving two terms, he was elected to the State Senate representing the 26<sup>th</sup> District covering

Los Angeles and Culver City.

As an Assemblymember, Murray served in a number of prominent roles, including the Chair of the Assembly Transportation Committee, Assistant Democratic Floor Leader, Majority Whip, a member of the powerful Rules Committee, as well as a member of the Utilities and Commerce Committee. He was the founding Chair of the Arts and Entertainment Committee. He also served on the California Transportation Commission and the California Film Commission.

In the Senate, Murray served as the Chairman of the Senate Appropriations Committee, the Transportation Committee, the Elections Committee, the Select Committee on the Entertainment Industry, and the Subcommittee on Los Angeles County Metropolitan Transportation Authority. He has served on the following Senate Committees: Banking, Finance and Insurance; Elections, Reapportionment and Constitutional Amendments; Energy, Utilities and Communications; the Joint Committee on Rules and the Joint Committee on Legislative Budget. Senator Murray also served as Chairman of the Senate Democratic Caucus and the California Legislative Black Caucus.

Throughout his career, Murray has been a champion in the areas of solar energy, consumer privacy, urban parks, economic development, civil rights, the Internet, healthcare access, transportation issues, artists' rights and the entertainment industry. Among other legislative accomplishments Murray authored SB1 the landmark "Million Solar Roofs" bill providing over Three Billion Dollars to expand the use of solar energy in California. Senator Murray was instrumental in crafting Proposition 12 and Proposition 40; two measures approved by voters that provided \$4.6 billion for state and local parks programs. The propositions created the Murray/Hayden Urban Parks Program, the Baldwin Hills Conservancy and funded the development and maintenance of new urban parks, youth facilities and athletic fields throughout the state.

Murray was one of the first legislators in the country to identify and address the need to protect consumers on the Internet. Senator Murray has led a forceful effort to stop Internet related crime by crafting a number of first-in-the-nation laws to protect consumers from identity theft, email spam and Internet spyware.

Prior to serving in the legislature Senator Murray operated his own law practice and entertainment management company. Murray sits on the corporate boards of the Federal Home Loan Bank of San Francisco and Premier Power, and California American Water. In his role as a corporate board member he has served on the audit, compensation, finance, affordable housing, and government relations committees. Murray also sits on the non-profit boards of Rock the Vote, The Los Angeles Urban League, and the Beverly Hills Bar Association and is a member of the California State Bar, The L.A World Affairs Council, and is an associate member of the National Academy of Recording Arts and Sciences.

Murray holds a license to practice law and a real estate brokers license in the State of California.

Senator Murray holds a Juris Doctorate from Loyola Law School, a Masters Degree in Business Administration from Loyola Marymount University, and a Bachelor of Science Degree in Business Administration and Accounting from California State University,

Northridge. Additionally Murray has studied at the Kennedy School of Government, at Harvard University.

## **George Peridas**



George Peridas is a Scientist at the Natural Resources Defense Council (NRDC) Climate Center, where currently he leads NRDC's efforts in Carbon Capture & Sequestration technology, regulation, and policy, and also plays an active role in the organization's state and federal climate and energy advocacy efforts. Prior to joining NRDC in October 2006, George worked as a Senior Consultant on energy markets for Pöyry. His expertise includes power, oil, natural gas and renewables markets, as well as emissions trading. George received his M.Eng. and Ph.D. degrees in mechanical engineering from the University of

Oxford and his M.Sc. in Environmental Science & Policy from Imperial College, London. He comes from Athens, Greece.

## **Catherine Reheis-Boyd**



Catherine Reheis-Boyd was appointed President of the Western States Petroleum Association January 1, 2010. She oversees the trade organization's operations and advocacy in six Western states – California, Arizona, Nevada, Washington, Oregon and Hawaii.

Ms. Reheis-Boyd has been affiliated with WSPA since 1990 and previously was the Association's Executive Vice President. She served as Chief Operating Officer and managed WSPA's personnel as Chief of Staff since March, 2003.

Ms. Reheis-Boyd has managed a broad range of Association activities, including climate change and low carbon fuels, renewable fuels and alternative energy issues in WSPA's six states, and beyond those borders into Canada and abroad.

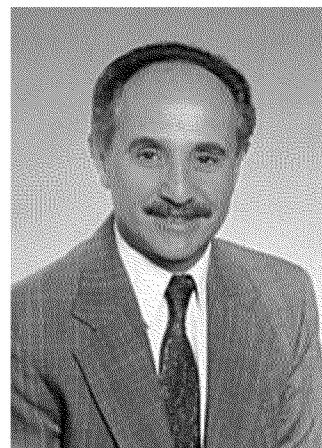
Ms. Reheis-Boyd's many accomplishments include: serving as a key industry spokesperson to the media on climate change and other politically relevant public policy topics; providing numerous presentations and high-level briefings on a wide range of complex subjects; and, leading industry advocacy efforts on important issues such as adequacy of energy supplies, ports and infrastructure, goods movement and fuel reformulations.

She previously chaired the California Marine Life Preservation Act (MLPA) Blue Ribbon Task Force, to which she has been appointed three times and on which she continues to serve. She is a member of, or advisor to, climate change policy panels and regulatory agencies in all six WSPA states.

Ms. Reheis-Boyd received her bachelor's of science degree in Natural Resource Management from California Polytechnic State University, San Luis Obispo and pursued post-graduate studies in environmental engineering at the University of Southern California.

## **Edward Rubin**

Dr. Rubin is the Alumni Professor of Environmental Engineering and Science; and Professor of Engineering and Public Policy and Mechanical Engineering. His general areas of interest are in engineering-economic modeling and assessment of energy and environmental systems, with a focus on fossil fuel power generation; carbon capture and sequestration; mitigation strategies for global climate change; technology innovation and the role of government policies.



Professor Rubin's research deals with technical, economic and policy issues related to energy and the environment. One product of this research is the Integrated Environmental Control Model (IECM)—a widely-used tool for analyzing ways to reduce the environmental impacts of current and advanced power generation systems, including coal combustion, integrated coal gasification combined cycle, and natural gas combined cycle power plants. Current emphasis is on the modeling and assessment of CO<sub>2</sub> capture and sequestration options for climate change mitigation, including technical, economic, legal and regulatory issues. Current research also is examining the potential of advanced renewable energy systems, and the role of government policies on the nature and pace of technological innovation to meet environmental goals.

Professor Rubin also serves on committees of the National Academies studying climate change mitigation policies, energy R&D planning, and alternative transportation systems. He was a coordinating lead author of the Special Report on Carbon Dioxide Capture and Storage by the Intergovernmental Panel on Climate Change (IPCC), co-recipient of the 2007 Nobel Peace Prize. He is the recipient of awards for educational and research achievements. At Carnegie Mellon, Dr. Rubin was founding director of the Center for Energy and Environmental Studies and the Environmental Institute. He received his B.E. at the City College of New York, his M.S. and Ph.D. from Stanford University.

## Dan Skopec



Dan Skopec is Chair of the California CCS Coalition and vice president of California regulatory affairs for Southern California Gas Co. (SoCalGas) and San Diego Gas & Electric (SDG&E), Sempra Energy's California regulated utilities.

Prior to joining SoCalGas and SDG&E in January 2008, Skopec served as undersecretary for the California Environmental Protection Agency from 2006 to 2007.

Mr. Skopec has extensive experience dealing with environment and energy policy issues. As a former deputy cabinet secretary for Governor Schwarzenegger, Skopec served as a liaison between the Governor's office and the California Environmental Protection Agency, Resources Agency, Department of Food & Agriculture, California Public Utilities Commission and the Governor's Washington D.C. office.

In 2001, Skopec directed the subcommittee on energy policy, natural resources and regulatory affairs in Washington D.C. As the lead consultant on energy issues, he held numerous energy-related hearings involving the California electricity crisis, natural gas, Federal Energy Regulation Commission and gasoline markets.

Prior to 2001, Skopec served as the legislative director for U.S. Rep. Doug Ose where he oversaw legislative strategy and was responsible for pursuing the congressman's legislative goals. Skopec also worked as a legislative assistant for Congressman Jack Quinn where he advised him how to vote on various issues including foreign affairs and agriculture.

Skopec holds a master's degree in international economics from George Washington University, Washington D.C. and a bachelor's degree in political science and European history from the University of California, San Diego.