

**Conference on  
Estimating the Benefits of Government-Sponsored  
Energy Technology R&D**

**March 4-5, 2002**

**Steering Committee Members**

**Jay Braitsch** has worked in the energy R&D and analysis area since 1975, including assignments in fossil, renewable and nuclear energy, and energy efficiency. He has participated in numerous technical-economic energy modeling activities focusing on the costs and benefits of advanced fossil fuel supply and electricity generation technologies, as well as non-fossil technologies. Prior to that he was involved in land and air warfare modeling at the Institute for Defense analysis. Dr. Braitsch currently serves as the Senior Advisor for Strategic Planning and international Activities to the Assistant Secretary for Fossil Energy, in the U.S. Department of Energy (DOE). He has been instrumental in a number of Department-wide activities, including lead author/champion for the energy-related parts of the DOE R&D Portfolio and the DOE Strategic Plan, and staff coordination for the energy supply chapter of the Administration's May 2001 National Energy Policy. Dr. Braitsch earned a B.S. in Electrical Engineering from Cornell University, and a M.S./Ph.D in Systems Engineering/Operations Research from the Ohio State University.

**Trevor L. Cook** is a Nuclear Engineer with the U.S. Department of Energy, Office of Nuclear Energy, Science and Technology (NE). Mr. Cook is presently responsible for all strategic planning and technology roadmap development within NE. Previously Mr. Cook served as an assistant to the Director of the Office of Nuclear Energy and as a technical program manager. Mr. Cook came to NE from the New Production Reactor project where he was responsible for the design and testing of the primary heat transport system for the Modular High Temperature Gas Reactor. Prior to his government service, Mr. Cook worked for eight years for the Baltimore Gas and Electric Company and was a senior nuclear engineer at the Calvert Cliffs Nuclear Power Plant. Mr. Cook has published several papers on nuclear power safety and on thermal-hydraulic phenomena and modeling methods. He has been an invited speaker to numerous industry and international forums. He is currently the U.S. representative to the International Atomic Energy Agency on matters related to nuclear fuel performance and technology. Mr. Cook attended the University of Tennessee where he earned a Bachelor of Science degree in Nuclear Engineering.

**Susan E. Cozzens** is Professor and Chair of the School of Public Policy at the Georgia Institute of Technology. Her research areas are technological choice, science policy, and research assessment. From 1995 through 1997, Dr. Cozzens was

Director of the Office of Policy Support at the National Science Foundation, which coordinated policy and management initiatives for the NSF Director. Dr. Cozzens has served as a consultant to the Committee on Science, Engineering, and Public Policy of the National Research Council, Office of Science and Technology Policy, National Science Foundation, Institute of Medicine, Office of Technology Assessment, General Accounting Office, National Cancer Institute, National Institute on Aging, and National Institutes of Health, and on advisory committees for the American Association for the Advancement of Science, the National Academy of Sciences, and the Office of Technology Assessment. She has been an invited speaker at the Ministry for Research and Technology in France, the Research Council of Norway, the Institute for Policy and Management in Beijing, and the Fundamental Science Foundation of Sao Paulo, Brazil. She is a member of the Committee on Science, Engineering, and Public Policy of the American Association for the Advancement of Science. She is past editor of *Science, Technology, & Human Values*, and has served on councils and committees for several professional societies. She is author of *Social Control and Multiple Discovery in Science: The Opiate Receptor Case*, and co-editor of *Theories of Science in Society*; *The Research System in Transition* (with Peter Healey, Arie Rip, and John Ziman); and *Invisible Connections: Instruments, Institutions, and Science* (with Robert Bud). Her work has appeared in *Policy Studies*, *Technology Transfer*, *Evaluation and Program Planning*, *Neuroscience*, *Social Studies of Science*, *Knowledge: Creation, Diffusion, Utilization*, *Scientometrics*, *Science and Public Policy*, and *Research Policy*. She recently shared the Lang Award of the Technology Transfer Society for an article co-authored with Julia Melkers. She is a recipient of Rensselaer's Early Career Award, a member of Phi Beta Kappa and Phi Kappa Phi, and a Fellow of the American Association for the Advancement of Science.

**Paul DeCotis** is Director, Energy Analysis (Policy Analysis, Planning, Evaluation) at the New York State Energy Research and Development Authority (NYSERDA). He directs, oversees, and coordinates: (1) Statewide energy planning, (2) energy policy and legislative analysis, (3) NYSERDA-wide program planning, (4) energy program and R&D program evaluation, and (5) energy emergency planning. As part of his responsibilities, Paul oversees Statewide energy demand and price forecasting for all fuels; economic, electricity and natural gas system, and environmental modeling; and energy markets assessments. He is the Record Access Officer to the State Energy Planning Board and Chair of the Interagency Energy Coordinating Working Group, comprised of the Departments of Public Service, Environmental Conservation, Transportation, and Economic Development. He is also a member of the NY Independent System Operator Management Committee. Prior to joining NYSERDA in 1995, Mr. DeCotis was Chief Policy Analyst with the New York State Energy Office. Prior to this position, he worked as a staff economist, financial analyst, and policy analyst. Mr. DeCotis has worked in the energy field for 22 years. Mr. DeCotis is President of Innovative Management

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**Marlan W. Downey** is a Senior Fellow in the Institute for Study of Earth and Man at Southern Methodist University. Early in his career, Mr. Downey was Chief Geologist, appointed Alaska Division Exploration Manager, and then Vice-President at Shell Oil Company. He then became President of Shell Oil's newly formed subsidiary, Pecten International. After retiring from Shell, he joined ARCO as Senior Vice-President of Exploration, and was then appointed Senior Vice-President and Executive Exploration Advisor. In 1996, Mr. Downey was appointed Professor and held the newly created Bartell Chair of Geoscience at the University of Oklahoma until 2000. Mr. Downey has been honored by Peru College with its Distinguished Alumni Award, knighted by President Biya of Cameroon, and honored by the University of Nebraska as a Distinguished Alumnus of the Department of Geology. He has been an invited speaker for numerous international organizations and was Distinguished Lecturer for the American Association of Petroleum Geologists in 1986 and 1987, the Huffington Distinguished Lecturer for the Far East, and Esso Distinguished Lecturer of Australia. He is the immediately past president of the American Association of Petroleum Geologists. He has been elected a Fellow of the American Association for the Advancement in Science. Mr. Downey serves on the boards of Matador Oil, First International Oil Corporation, and Petroleum Development Associates, as well as supervising investments made by his personal company, Roxanna Oil. He has provided consultancy advice and management training to many of the world's largest oil companies, including ARCO, Unocal, Vastar, Chinese Petroleum Corporation (Taiwan), Sonotrach, the Chinese National Offshore Oil Corporation. In March 2000, Mr. Downey was honored as "A Living Legend in the Oil Business" by the world's largest geological survey, the Houston Geological Survey. Mr. Downey holds a B.A. in chemistry from Peru State College, and B.S. and M.S. in geology from the University of Nebraska.

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**William Fulkerson** is a Senior Fellow with the Joint Institute for Energy and Environment (JIEE) of the University of Tennessee, the Tennessee Valley Authority and Oak Ridge National Laboratory. His current interests include global sustainability issues with emphasis on energy and environmental technologies and policies. He is a member of the Board of Energy and Environmental Systems of the National Research Council. Since 1994, he has chaired the U.S. Department of Energy's (DOE's) Laboratory Energy R&D Working Group (LERDWG), an organization of energy R&D managers from 13 DOE labs including all the national labs concerned with energy R&D. During 1999 and 2000, LERDWG helped the Under Secretary of Energy analyze the DOE energy R&D Portfolio with respect to its adequacy for making progress on DOE strategic goals related to the environment, the economy, and national security. The results of these analyses were published and used extensively in preparing the DOE budget. More recently, LERDWG has assisted DOE in the planning of the National Climate Change Technology Initiative of the Bush Administration and with drafting a strategic plan for the Clean Energy Technology Export initiative. He was a member of the Energy R&D Panel of the President's Committee of Advisors on Science and Technology, and he chaired the task force on fossil energy of the Panel. The report of the Panel is *Federal Energy Research and Development for the Challenges of the Twenty-First Century*, Nov. 1997. He also participated on the NRC report *Energy Research at DOE Was it Worth it?* Nat Academy Press 2001. Before joining JIEE, Dr. Fulkerson was Associate Laboratory Director for Energy and Environmental Technologies at the Oak Ridge National Laboratory (ORNL). He retired from ORNL in December, 1994 after 32 years of service. Dr. Fulkerson received his B.A. and his Ph.D. in Chemical Engineering from Rice University. He is a member of Sigma Xi and a fellow of the American Association for the Advancement of Science.

**Robert L. Hirsch** is a senior staff member specializing in energy issues at RAND, a non-profit, non-partisan public policy analysis organization. Prior to RAND, he was

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**Rosalie Ruegg** is Managing Director of TIA Consulting, specializing in the evaluation of Federal and State R&D programs. Recent projects include developing a performance scoring system for a public-private partnership program, co-authoring a case-study resource guide for science managers, developing a retrospective compendium of evaluation studies, advising a state investment fund on assessing fund performance, serving on a Harvard University advisory committee for a project on managing high technical risks in R&D investments, and serving as economics editor of Macmillan's new three-volume energy encyclopedia. Over the previous decade, as Director of the Advanced Technology Program's Office of Economic Assessment, she developed a comprehensive evaluation program that successfully met requirements of the Government Performance and Results Act, and received high marks for its scope and rigor. She led and served on boards responsible for reviewing and selecting R&D projects for more than \$1 billion of Federal awards; led a multi-sector economic impact study for Congress; served on international committees; co-authored a textbook in economics; authored more than 60 reports,

papers, and book chapters; co-developed a series of instructional videos on benefit-cost, life-cycle cost and risk analyses; developed and presented training courses in economics and finance for the General Services Administration, U.S. Department of Energy, University of Wisconsin, Massachusetts Institute of Technology, and others; and organized and chaired numerous sessions on economics and technology at national conferences. As a member of the Federal Senior Executive Service, she received the Department of Commerce's Gold Medal for excellence. A member of Phi Beta Kappa and a Woodrow Wilson Fellow, she received degrees in economics from the Universities of North Carolina and Maryland, an M.B.A from The American University, and extensive managerial and leadership training from the Federal Executive Institute and Harvard University. She received the Institute of Industrial Engineer's Wellington Award in 2001, for contributions to the field of engineering economics.

**James L. Sweeney** is Professor of Management Science and Engineering, an affiliated faculty member of the Department of Economics, a Senior Fellow of the Stanford Institute for Economic Policy Research, and a Senior Fellow of the Hoover Institution on War, Revolution and Peace. Until 1999, he served as chairman of the Stanford Department of Engineering-Economic Systems and Operations Research. His professional activities have focused on the application of economic methods and mathematical modeling, particularly to natural resource issues, energy economics and policy, environmental economics and policy, and competitive analysis. At Stanford he served as the Director of the Energy Modeling Forum, the Chairman of the Institute for Energy Studies, and the Director of the Center for Economic Policy Research (now named the Stanford Institute for Economic Policy Research). He has served as coeditor of the *Journal Resource and Energy Economics* and serves on the editorial board of *The Energy Journal*. He was a founding member of the International Association for Energy Economics and has served as its vice president for publications. He is a Senior Fellow, U.S. Association for Energy Economics and a Fellow of the California Council on Science and Technology. He recently served on the review panel for the State of California Public Interest Energy Research Program, the National Research Council's Committee on Benefits of DOE R&D in Energy Efficiency and Fossil Energy, and the National Research Council's Committee on Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards. In the early 1970's he served as Director of the Office of Energy Systems Modeling and Forecasting of the U.S. Federal Energy Administration. There, he was responsible for the development of the energy supply and demand models used by the U.S. Federal government for its energy policy analysis and forecasting.

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**James L. Wolf** is an independent consultant who specializes in the energy and environmental fields. He consults with energy service providers, utilities, equipment manufacturers and others to develop business plans and marketing opportunities, and to design strategies and positions on public policy issues. The deregulation of the electric and natural gas industries is one primary area of his focus. Mr. Wolf recently served on the National Research Council Committee on Benefits of Department of Energy R&D on Energy Efficiency and Fossil Energy. Prior to becoming an independent consultant in September of 1997, Mr. Wolf served as Vice President, Energy and Environmental Markets for Honeywell. He identified business development opportunities, contributed to Honeywell's strategic plans, and helped to develop and present Honeywell's positions on public policy issues. From 1981 to 1993, Mr. Wolf served as Executive Director of The Alliance To Save Energy, a nonprofit coalition of government, business and environmental leaders that conducts research, demonstration projects and policy advocacy. Mr. Wolf negotiated and drafted many of the key provisions of the Energy Policy Act of 1992 that concern energy efficiency. From 1979-1981, Mr. Wolf served at the National Oceanic and Atmospheric Organization (NOAA), a part of the U.S. Department of Commerce, first as Special Assistant to the Administrator and then as the Acting Deputy Administrator for Policy and Planning. Previous to NOAA, Mr. Wolf served as Deputy Chief Counsel to a Select Committee of the United States House of Representatives from 1977-1979, practiced environmental and corporate law at the law firm of Steptoe and Johnson in Washington, D.C., taught environmental law at the University of Miami School of Law, and was attorney-advisor to the Administrative Conference of The United States. Mr. Wolf obtained a J.D., cum laude from Harvard Law School in 1973 and a B.A. with highest distinction in Economics from the University of Rochester in 1970.

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