

## **Speaker Biographies**

### **Douglas Arent, Ph.D., MBA**

#### **Director, Strategic Analysis,**

#### **National Renewable Energy Laboratory (NREL)**

Doug Arent is Director of Strategic Energy Analysis with the National Renewable Energy Laboratory (NREL). He specializes in strategic planning and financial analysis competencies; clean energy technologies and energy and water issues; and international and governmental policies. Arent also has expertise in the strategic market management, product planning and risk portfolio management. In addition to his NREL responsibilities, Dr. Arent serves on a variety of advisory boards and councils, including the Advisory Board of E+Co, the Energy and Environmental Security Institute, University of Colorado, and he chairs the Quantitative Work Group in support of the Clean and Diversified Energy Advisory Council of the Western Governor's Association.

Prior to joining NREL, he was a management consultant to clean energy companies, providing strategy, development and market counsel. Arent also was director of OEM sales and director of strategic marketing and business development at Network Photonics; director of Media Gateway Products and strategic planning manager at Lucent Technologies; and vice president of business development for Amonix Inc.

Doug Arent is part of the Executive Education Program at Harvard Business School. He has a master's in business administration from Regis University, a Ph.D. from Princeton University, and a bachelor's of science from Harvey Mudd College in California.

### **Dr. Bruce Everett**

#### **Edmund A. Walsh School of Foreign Service, Georgetown University**

Bruce Everett received a B.A. from Princeton University in 1969 and a Ph.D. from The Fletcher School at Tufts University in 1980.

Between 1974 and 1980, he served in the Federal Energy Administration and the US Department of Energy in the Office of International Affairs.

He joined ExxonMobil Corporation in 1980 and held a variety of positions, including Manager of Energy Analysis in Esso Europe; Manager of the Coal and Synthetic Fuels Department in Esso Europe; Manager, Supply and Planning in Exxon Coal and Minerals; Operations Manager, The Carter Mining Company; Executive Director, Exxon Energy Limited (Hong Kong); Regional Natural Gas Manager for Middle East, Africa, and Latin America, Exxon Company International; and Downstream Government Relations Manager, ExxonMobil Corporation. He retired in 2002.

He currently teaches oil market economics as Adjunct Professor of International Business at the Georgetown School of Foreign Service and Adjunct Associate Professor of International Business at the Fletcher School.

**William A. Frey, PhD****Global Business Director, Biofuels Business, DuPont**

Dr. Frey is currently Global Business Director - DuPont Biofuels, in DuPont's Bio-Based Materials business unit, focusing on business opportunities in the growing biofuels and biorefinery industries.

Dr. Frey received his B.S. degree in Chemistry (King's College) and Ph.D. degree in Organic Chemistry (Penn State), where his doctoral research focused primarily in the areas of Biochemistry & Enzymology. He continued his studies as a Research Fellow at Harvard Medical School, where he held both ACS and NIH Postdoctoral Fellowships.

Joining DuPont in 1980, Dr. Frey held both technical and management roles in R&D in the Medical Products Department. He led groups in developing and commercializing diagnostic systems for several therapeutic drugs, introduced DuPont's first product based on Biotechnology, and led the introduction of one of the first blood screening tests for exposure to HIV, the causative agent for AIDS.

Beginning in 1987, Dr. Frey held various management positions, including Marketing, Marketing Technical, and Strategic Planning, and later transferred to Germany where he served as Business Operations Manager – Europe for Du Pont's Medical X-ray Films European business.

Returning to the USA in 1993, Dr. Frey served in a variety of management positions, including Worldwide Integrated Operations Manager – Printing & Publishing, Worldwide Business Director for DuPont's Color Proofing and Ink-Jet businesses, and helped form DuPont Bio-Based Materials, a new Strategic Business Unit, with the objective of identifying and building new businesses in the emerging area of Industrial Biotechnology.

**Dr. Tad Patzek****Civil and Environmental Engineering, University of California, Berkeley**

Tad Patzek is a professor of Geoengineering at U.C. Berkeley. Prior to joining Berkeley in 1990, he was a researcher at Shell Development in Bellaire, Houston, where he worked on enhanced oil recovery (EOR) methods and evaluated the future of U.S. energy supply from tar sands, heavy oil, oil shale, and coal.

Dr. Patzek has a Ph.D. degree in chemical engineering from the Silesian Technical University in Poland, where he also studied engineering physics. His Ph.D. thesis was on optimization and control of chemical reactors. He came to the U.S. as a Fulbright Fellow at the University of Minnesota to work on computational fluid mechanics.

Patzek's current research involves mathematical modeling of earth systems with emphasis on fluid flow in soils and rocks. He is also working on the thermodynamics of energy supply schemes. Currently, he teaches courses in hydrology, ecology and energy supply, computer science, and mathematical modeling of earth systems at micro and mega scales. He is an Editor for Transport of Porous Media, the best-known journal of

multiphase flow in rocks and soils. Patzek is a coauthor of 181 papers and reports, and is currently writing three books.

**John E. Reese**

**Fuels Product Management Advisor U.S., Shell Oil Products U.S.**

John E. Reese is Fuels Product Management Advisor with Shell Oil Products US (SOPUS). In that role, he manages SOPUS's participation in state and federal fuels regulatory initiatives. Prior to joining SOPUS, Mr. Reese spent ten years as an attorney with the American Petroleum Institute (API), where he concentrated on fuels issues. While at API, Mr. Reese participated in legislative activities, rulemakings, and litigation concerning reformulated gasoline, low sulfur gasoline and diesel, mobile source air toxics, oxygenates, and numerous state fuels issues.

Mr. Reese has a law degree from Catholic University, a Master of Arts degree from the College of William and Mary, and a Bachelor of Science degree from George Mason University.

**John Sheehan**

**Senior Strategic Analyst, NREL**

John Sheehan has over 20 years' of experience in the field of chemical and biochemical engineering. He has served as an analyst and project manager at the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) since 1991. During his tenure at NREL, Sheehan has led research on the production and use of biodiesel and ethanol. In the past six years, Sheehan has authored groundbreaking life cycle assessment studies related to biodiesel and ethanol technology. His 1998 study of biodiesel represents the first comprehensive life cycle evaluation of soybeans as a source of biodiesel used in urban buses. His latest life cycle study, published this year, is an evaluation of the sustainability of using agricultural residues as a feedstock for fuel ethanol production.

From 2002 to 2005, John also led strategic planning activities for the Department of Energy's Biomass Program. In October 2005, John joined the newly formed Strategic Energy Analysis Center at NREL, where he supports the Office of Planning, Budget and Analysis within DOE's Office of Energy Efficiency and Renewable Energy.

Prior to coming to NREL, John worked as a biochemical engineer at W.R. Grace and Company and Merck Pharmaceutical. He holds a B.S. and an M.S. degree in chemical and biochemical engineering from the University of Pennsylvania and Lehigh University, respectively.