HOPE COLLEGE CHEMISTRY SEMINAR

BP World Energy Outlook 2030: Challenges for Sustainability

Dr. Bruce Cook

BP Products North America

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Abstract

The world faces critical issues around energy, economic development and climate change in a rapidly changing world that is much different than just a few decades ago. The BP World Energy Outlook 2030 focuses on long-term energy trends, building on our Statistical Review of World Energy, and then develops projections for world energy markets to 2030, taking account of the potential evolution of the world economy, policy, and technology. The outlook's 'base case' reflects a 'to the best of our knowledge' assessment of the world's likely path from today's vantage point, drawing on expertise both within and outside the company. It is not a statement about how we would like the market to evolve. The outlook highlights the growing role of developing economies in global energy consumption, and the increasing share of non-fossil fuels in global energy supply. It emphasizes the central role markets and well-designed policy can play to meet the dual challenge of solving the energy needs of billions of people who aspire to better lifestyles, and doing so in a way that is sustainable and secure. It also notes the uncertainties attached to any long term projection. The discipline of building a numerical projection sharpens our thinking, but the precise numbers are less important than the underlying story of the challenges we all face and the choices we make in producing and consuming energy. BP's conducts a broad range of research and technology programs, both in our own laboratories as well as world class universities around the world, that address many of these issues.

Biography

Dr. Bruce R. Cook received his BS degree in chemistry from Hope College, Holland MI in 1981, and his PhD in chemistry from the University of Illinois at Urbana-Champaign in 1986. His thesis research, under the direction of Professor Kenneth Suslick, was on shape selective catalytic and photo-catalytic oxidations of hydrocarbons with metallo-porphyrin catalysts. In 1986, Dr. Cook joined Exxon Research and Development Laboratories in Baton Rouge, LA where he was involved in exploratory research on Catalytic Reforming, Fluid Catalytic Cracking (FCC), Catalytic Hydroprocessing and Thermal Cracking. In 1995, Dr. Cook moved to the ExxonMobil Corporate Strategic Research (EM-CSR) in Annandale, NJ. At EM-CSR, Dr. Cook pursued fundamental research in the areas of Fischer-Tropsch Wax hydroisomerization, selective FCC naphtha hydroprocessing (SCANfining), and Fluid Catalytic Cracking. Dr. Cook joined BP Products, North America, in 2007 as Advanced FCC Program Manager for Advanced Refining Technology. Dr. Cook holds over 30 US Patents and is the co-author of 17 publications. He has presented invited lectures at 2001 Hydrocarbon Resources and 2004 Catalysis Gordon Conferences. Dr. Cook is also a co-recipient of the 2001 American Chemical Society Southwest Region Industrial Innovation Award and the 2005 American Chemical Society Heroes of Chemistry Award for his research leading to the commercialization of ExxonMobil's SCANfining Processes. From 2005/2006 Dr. Cook served as Chairman of the Catalysis Society of Metropolitan New York and is currently a Director for that organization, as well as being a member on the Executive Committee of the American Chemical Society's Petroleum Division.