Alternative Futures for Energy Production and Consumption in the US and the World

Dr. Barry Hughes

Director of the Frederick S. Pardee Center for International Futures, and John Evans Professor at the Josef Korbel School of International Studies, Univ. of Denver.

March 18, 2013—University of New Mexico

- Auditorium, Centennial Engineering Building—**5:30PM**

March 19, 2013—Sandia National Laboratories*

- New Mexico: 701/2001—**10:00 AM (MST)**
- California: MO50/107—**9:00 AM (PST)**

Sponsored by the SNL Sustainability Innovation Foundry

ABSTRACT

Dr. Hughes will present and discuss the results of simulations on alternative energy futures composed in collaboration with Sandia National Labs Sustainability Innovation Foundry. The simulations assess 1) the potential globally-scaled environmental and economic consequences of future extraction and combustion of projected reserves of fossil fuels including shale gas and oil, and 2) the impact renewables might have on altering those alternative energy futures and their consequences. Dr. Hughes will use the model to explore alternate scenarios suggested by members of the audience.

The International Futures System and Project - International Futures (IFs) is a large-scale, long-term, integrated global modeling system. It represents demographic, economic, energy, agricultural, socio-political, and environmental subsystems for 183 countries interacting in the global system. The central purpose of IFs is to facilitate exploration of global futures through alternative scenarios. The model is integrated with a large database containing values for its many foundational data series since 1960. IFs is freely available to users both on-line (www.ifs.du.edu) and in downloadable form. IFs is used widely. It is central to the African Futures Project in collaboration with the Institute for Security Studies in Africa, and it was a core component of a project exploring the New Economy sponsored by the European Commission. Forecasts from IFs have supported Global Trends 2020, 2025, and 2030 of the National Intelligence Council. IFs was used to provide driver forecasts for the fourth Global Environment Outlook of the United Nations Environment Program.

BIOGRAPHY

Dr. Barry Hughes Dr. Hughes earned a B.S. in Mathematics from Stanford in 1967 (with distinction) and his Ph.D. in Political Science from the University of Minnesota in 1970. His principal interests are in (1) global change, (2) computer simulation models for economic, energy, food, population, environmental, and socio-political forecasting, and (3) policy analysis. The fundamental concerns that synthesize these interests are (1) developing effective response to long-term global change and (2) improving the long-term human condition. He has developed International Futures (IFs), the widely-used computer simulation for study of long-term national, regional, and global issues (see http://www.ifs.du.edu/). He has supported the U.S. National Intelligence Council's reports to the President on *Mapping the Global Futures 2020* and *Global Trends 2025,* and *Global Trends 2030*, and worked on long-term global forecasting for many other national and international institutions.

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*DOE security clearance or escort required, please contact H. Passell for SNL escort info.

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