USC University of Southern California

Global Energy Network GEN

GEN DISTINGUISHED SPEAKER PROGRAM

RTH 342, Tuesday, June 11, 2011, 3:00 -4 p.m.

Reducing risks associated with offshore hydrocarbon development & shale gas systems –

Kelly Rose, NETL

Science-based prediction of engineered–natural systems is a core research competency of the U.S. Department of Energy (DOE) that cross cuts many of today's energy challenges. Over decades, DOE's National Energy Technology Laboratory (NETL) has built a unique set of resources for predicting how complex and heterogeneous subsurface systems behave under extreme conditions and over large ranges in time. At present, NETL researcher in the geologic and environmental sciences focuses on knowledge gaps and research needs associated with improving understanding of i) Ultra-deepwater (UDW) hydrocarbon production and development from regions such as the Gulf of Mexico, ii) Unconventional fossil energy (UCR) development concerns such as those associated with shale gas production, and iii) geologic sequestration of CO2 in onshore subsurface reservoirs. This presentation will focus on highlights primarily from the UCR and UDW research areas, however, the field, experimental and numerical modeling approaches utilized by these research areas align significantly with our ongoing work in relation to geologic storage of CO2 and the characterization of natural gas hydrate systems.

This talk will highlight two research focus areas of NETL namely, Ultra-deepwater resources and Unconventional Energy Resources. For more information, visit https://edx.netl.doe.gov/portfolios

Bio: Kelly Rose is a research geologist with the National Energy Technology Laboratory's (NETL) Office of Research & Development (ORD). She is also NETL ORD's Technical Coordinator for their Ultra-deepwater Research Portfolio focusing on reducing risks and impacts associated with offshore hydrocarbon development. Rose works within NETL-ORD conducting geologic and geospatial research in support of energy and climate related programs. Her research focuses on characterizing and identifying spatial geologic controls on hydrocarbon and geothermal resource distribution, occurrence, and migration pathways from the grain to the regional scale. Between 1999 – 2006 she worked on the geologic assessment of tight gas resources in the western United States, first as an exploration geologist with Marathon Oil Company (1999 – 2001) and then with DOE/NETL (2001 – 2006). From 2006 to 2011 she served as NETL ORD's lead geologist in their Natural Gas Hydrates R&D area. At present, she works with research teams spanning ORD's geologic and environmental sciences portfolios.

gen.usc.edu