The Fascinating Future of Energy Practitioners





The global energy outlook has been evolving dramatically as scientists and economists attempt to reconcile a rapidly changing energy landscape. A fundamentally new source of supply (shale) has delayed "peak oil" concerns and major oil and gas companies are now looking at "peak demand" in the world's developed economies. Demand-side considerations (focus on efficiency) are garnering as much attention as the supply side (focus on new energy resources). Natural gas is replacing

coal as a source of electric power and, contrary to the concerns of just 15 years ago, the U.S. has moved from dependence on imports for natural gas to the ranks of net exporters. Natural gas is being challenged by the exponential growth of renewables (aka, distributed energy resources (DERs)) that, in many areas, are providing power on a lower marginal cost basis than fossil fuels and capturing a disproportionate share of new capacity. Utilities are struggling with DERs, which fundamentally threaten their old business model. The complexity does not end there. The so-called energy-water (or energy/resource) nexus means that as we address future directions in energy we are implicitly addressing the futures of other resources. And, the fundamentals of the science of energy are being rewritten, forcing students to unlearn the paradigms of old. All of this is happening against a backdrop of rising global temperatures and exponentially evolving technologies. Come visit us after you read the attached presentation to understand how multidisciplinary studies in the Energy and Earth Resources graduate program are preparing future leaders for interdisciplinary solutions.

http://www.jsg.utexas.edu/eer/files/The-Fascinating-Future-of-Energy-Practitioners-v2.pdf