



Dr. Michal Moore

ISEEE appoints first visiting fellow

by Mark Lowey

The way Dr. Michal Moore sees it, one of ISEEE's most important jobs is to ask the big questions in ways that no other research institution is asking.

Moore, Chief Economist at the U.S. National Renewable Energy Laboratory in Boulder, Colorado, last month became ISEEE's first visiting senior fellow. During his initial one-year appointment, he'll play a pivotal role in helping the Institute and its collaborators in other research institutions and industry answer crucial questions about Alberta's long-range energy future.

For example: What kind of future do we want? What's best for Alberta in terms of energy mix, protecting the environment and ensuring a strong economy? How do we get there? What are the challenges and opportunities along the way? How does Alberta's future fit within a North American and global context?

"The work that's going to come out of this Institute, I believe, will be more integrative just because of the nature of the questions that it asks," Moore says.

Moore, a California native, obtained a geology degree at Humboldt State University in northern California and a Master's from the Ecology Institute at the University of California, Davis. He completed his doctorate in economics at the University of Cambridge in England. He has also worked as a regulator in government, serving two terms as a California energy commissioner and as a county supervisor in Monterey County, overseeing land use and social spending decisions in unincorporated areas in the county.

Moore met Dr. Robert Mansell, ISEEE's managing director who is also an economist, at a conference when Mansell and others were in the early stages of formulating a model of integrated, collaborative and mission-focused research in the areas of sustainable energy, environment and economy. That model became ISEEE.

"Instead of waiting for someone to invent the model, the Canadians were inventing the model and were going to drive the (energy) market," Moore recalls. "This good idea is now going to reach into other counties, for instance the U.S. or the European Union, and it will provide a model of how to integrate very disparate, but in fact, connected concepts."

As an example of ISEEE's approach, Moore points to questions about the role that renewable energy sources, such as wind and solar power, biomass and small hydro, will play in Alberta's energy future. The way renewable energy technologies are often developed now, each technology "attacks the market separately," he notes. Each tries to advance as if it exists separately from all the others, and proponents too often ignore the reality that Alberta and other places have a huge amount of capital invested in fossil fuels – oil, natural gas, oil sands and coal – and related infrastructure.

Part of ISEEE's research will be to identify and characterize future energy demand, and then match the optimal mix of energy sources with various kinds of demands – peak electricity requirements versus constant, for example. The ultimate goal is not to just simply meet demand, but to provide clean energy in the most energy-efficient and energy-conserving way possible.

Along with hydrocarbons, renewable energy sources as well as new kinds of distribution systems, such as community-based distributed energy networks rather than centralized energy sources and long-distance transmission lines, are important in planning an integrated energy future, Moore says.

"When you imagine a suite of technologies as opposed to one dominant technology, then economic development in areas that would have had to wait a longer time for it, in using a different energy-delivery model, becomes possible earlier," he says. "You improve the lot of the people, the GDP increases in a shorter timeframe, and you probably do less environmental damage along the way."

Moore will help ISEEE organize several planned forums on Alberta's energy future, including an international forum on cross-border regulatory issues. Starting in January, when he'll leave his position as chief economist at the U.S. national laboratory, he'll start teaching two classes at the U of C.

Moore also hopes to organize a campus-wide public forum that brings in experts from as many different disciplines at the University as possible to ask the big questions about sustainable energy, environment and the economy.

Says Moore: "By integrating these three components, we'll create a new decision model for the political world, and also a new academic model that teaches people how to ask better questions and how to integrate the information they get."