

IAEE Energy Forum

First Quarter 2018

International Association for Energy Economics

ISSN 1944-3188

IAEE

WWW.IAEE.ORG

INTERNATIONAL
ASSOCIATION for
ENERGY ECONOMICS



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Editor: David L. Williams

President's Message

Coming out of a couple of tough years for energy markets, and for energy-related professional associations, 2018 has the potential to be a very positive year for the IAEE. Efforts to expand the geographic footprint and balance the organization's age distribution are well underway, thanks to an active year by 2017 President Ricardo Raneiri and Executive Director Dave Williams Jr. with the help of several others. Going forward, building on the 2017 momentum will be a prime objective challenge and one I will relish. The IAEE and its later-established U.S. affiliate have provided a professional home for me during a career in energy economics going on a half-century. I have been involved since IAEE was founded in 1977-78, both in the U.S. and subsequently while I was at the IEA in Paris. My career has also spanned many areas, initially as a government econometrician, forecaster and energy policy analyst, then as an energy market advisor within a large bank, and then an energy macroeconomist and securities analyst for a private banking firm, before serving as a senior official with an international energy organization. Since returning to the U.S. in 2000, my role has been as an energy journalist and editor for *Energy Intelligence*, a longstanding private energy publishing company.



Through all this, the IAEE has been my professional touchstone, as a critical resource for professional connections and a friendly forum for discussion of an increasingly broad set of interdisciplinary topics related to the broader energy context. I decided a couple of years ago it was time to "give back" and my offer was accepted with more enthusiasm than expected and I had positive responses from many old friends who have grown up professionally in the IAEE and an increasing number of younger members who are the future life's blood of this organization. In my year as President-Elect it has been a distinct and not at all unexpected pleasure working with Dave Williams Junior and Senior and Rebecca, whom I have named "Wonder Woman."

In the next issue of the IAEE Energy Forum I plan to make some observations on my main area of interest over the last few decades, oil markets, that touches on many other areas of energy economics and other disciplines that pack our conference agendas and our industry, academic and government membership and conference audiences. The disconnect between the short-term and longer-term drivers of oil supply and oil demand offer a "Twin Dilemma for Global Oil Markets." All of economics is about transitions and energy economics is particularly susceptible given the linkages to geopolitics, technology, government policies, regulations and financial markets. One of the enduring pleasures of having chosen this profession is picking up the newspaper every morning and finding something interesting and relevant on nearly every page. Early in one's career it is about gathering as much information as possible, later in one's career a prime contribution is to discard as much irrelevant

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President's Message (continued from page 1)

information as possible

When I was in Oslo last year giving a talk organized by the Norwegian affiliate as part of the Distinguished Lecturers Series, I was introduced as a champion of the environment and of energy economics, because I had reduced the discussion of oil market events from 80 pages when I edited the IEA's monthly *Oil Market Report* to less than 20 pages in EI's *Oil Market Intelligence* during the 17 years I was editor saving not only trees but energy economists time. With advent of "Big Data" the filtering process has become all that much more important for energy economists, energy journalists and related professionals. As a second historical memory, when Global Information Systems were becoming all the vogue, I was asked to build a model of U.S. energy demand, by fuel...by individual. My response was that my training in economics had been about making order out of chaos rather than the other way around, a sentiment I have shared more recently with my friends in the Big Data community.

David Knapp

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IAEE Mission Statement

The International Association for Energy Economics is an independent, non-profit, global membership organisation for business, government, academic and other professionals concerned with energy and related issues in the international community. We advance the knowledge, understanding and application of economics across all aspects of energy and foster communication amongst energy concerned professionals.

We facilitate:

- Worldwide information flow and exchange of ideas on energy issues
- High quality research
- Development and education of students and energy professionals

We accomplish this through:

- Providing leading edge publications and electronic media
- Organizing international and regional conferences
- Building networks of energy concerned professionals

Editor's Notes

We include reports from a number of conferences, seminars, symposiums and other meetings in this issue. The report from the Houston, Texas, North American meeting covers the plenary sessions of that meeting. Those interested in obtaining the full proceedings of that meeting may order them from USAEE headquarters - see page 28 for details. The report of the South Asia energy summit is also notable.

The articles cover a broad range of topics which we hope you will find of interest.

Samarth Kumar, Dirk Hladik and **Philipp Hauser** note that different aspects of measuring security of supply (SoS) have been structured into uncertainties, systematic and specific risks. Using a proposed framework, they discuss emerging uncertainties and risks in electricity and natural gas sectors and the impact of sector coupling. Suggestions are made on how to proceed with measuring SoS in a changing energy landscape.

Ado Ahmed notes that renewable energy resources (RE) hold great potentials for meeting the energy needs of Nigeria, a country that is aptly described as an energy deficient nation. However, the financing of utility scale RE faces a myriad of challenges related to weak financial markets and weak institutions.

Tunç Durmaz, Aude Pommeret, and **Ian Ridley** investigate a household's willingness to pay (WTP) for a 1.9kW peak PV system, a smart meter, and a home storage battery. They are particularly interested with how and whether the WTP for one of these technologies is affected by the complementary technologies.

Walid El Gazzar posits that as policy makers in developing countries seek to become less dependent on fossil fuels, they need to worry less about increasing RE generation capacity and more about building the institutional capabilities and human resources necessary for this transition.

Austin Zwick writes the energy transition from fossil fuels to alternative energy is being driven by changes to the underlying Energy Returns on Investment (EROI), which are decreasing for the former and increasing for the latter. Though current prices on oil and gas may be low due to temporary boosts triggered by the introduction of fracking, long-run trends indicate that a "Green Day" - the day where alternative energy takes over the majority of consumption - will arrive in the near future as technological breakthroughs are making alternative fuels more energy efficient than their conventional counterparts. Carbon taxes may accelerate the timeline, but they aren't the cause of this trend.

Jan Deller and **Julie Metta** discuss Hong Kong's use of municipal solid waste for the generation of electricity. This use of green technology tackles two issues at the same time, reducing the amount of waste while providing cleaner energy.

Ugranath Chakarvarty discusses the availability of the rare earths and other critical materials that are used in the advance technologies required for the production of many of the renewables that are being counted on to lead to a low carbon economy. He raises the prospect of an OPEC type cartel for some of these needed materials.

Hisham Khatib writes that the new renewables are increasingly being introduced into power systems all over the world. Sometimes this is driven by enthusiasm rather than rational evaluation. He analyzes this.

DLW

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