

IAEE ENERGY FORUM

CONTENTS

- 1 President's Message
- 4 The Texas Freeze Out: Electric Power Systems, Markets and the Future
- 8 Highlights of IAEE 2021 Online Conference's Main Sessions
- 12 Climate and Power System Reliability in the Aftermath of the Texas Blackouts
- 17 The 2021 ERCOT Power Crisis. Capacity Markets Would Not Have Helped
- 20 The Texas Power Crisis Seen from the EU: a testbed for its resilience and risk-preparedness rules
- 23 Texas Power Outages Revealed Supply Vulnerabilities¹
- 26 Vulnerabilities in the Texas Electricity Market: A Comparison of Winter Events in 2021 and 1989
- 29 The Catastrophic Texas Blackouts: Lessons For The Developing Countries
- 31 Vulnerability in the utility industry: perspective, experiences and lessons from the European Union¹
- 35 What is the Value of Security of Supply for Households and Business Consumers? An Assessment Accounting for Trade-offs and Psychological Drivers
- 42 Calendar

Editor: David L. Williams

Published By:

IAEE
International Association for
ENERGY ECONOMICS

PRESIDENT'S MESSAGE

I send my best regards to all of you, along with my sincere hope that some degree of normalcy has begun to return to your everyday lives. Although recovery and emergence from the pandemic is not proceeding at the same rate everywhere, there are some indications that the restrictions that have contained and frustrated us for so many months have begun to be lifted. Vaccines are playing a large role in that, so I encourage you to consider taking the vaccine as soon as possible, if you have not already done so. And fingers crossed that we will all be able to meet together in Tokyo next summer for IAEE's 43rd International Conference! Planning is well underway for that important event—one that will (we hope) mark a triumphant emergence from the quarantines, lock-downs, and distancing that have governed us for such a long time.

Speaking of triumphs and conferences, I am pleased to say that IAEE's recently concluded 1st International Online Conference exceeded all my expectations and was a great success! Like the blind man who was able to touch the elephant in only a few places, I may not have the complete picture in mind yet. But, based on the parts that I was able to touch (not inconsiderable), the event achieved everything that we wished for, and more. With more than 900 participants joining the online confab from 62 countries, we were finally able to meet and greet again (if only virtually). During the 16 keynote sessions we heard from many of the world's leading experts on the meaning and implications of the much vaunted energy transition. We were also able to learn from and provide feedback to hundreds of researchers whose work was presented during 137 concurrent sessions, and to assess and reward the very excellent research presented by many of IAEE's student members, and much more.

We have many people to thank for the efforts that made this event such a great success. Our deepest gratitude goes out to Yannick Perez and Jean-Michel Glachant, whose leadership, supported by the tireless efforts of their respective teams working respectively from the French Association for Energy Economics and the Florence School of Regulation, made all of this possible. From the beginning, the decision to attempt a virtual conference was rightfully viewed as a risky and difficult undertaking, something that we had never attempted before, and something necessarily completed subject to rather short and scary deadlines, not to mention all of the uncertainties imposed by Covid, etc. It is a relief, but not a surprise, to look back now and realize that everyone who took part in the planning and execution of our conference has exceeded our highest expectations,



(continued on page 2)

President's Message (continued)

succeeded in spectacular fashion, and earned the gratitude of all IAEE members, I am sure. This definitely marks a high point in the history of the IAEE. Something that will not be forgotten.

Speaking not as your President but as a simple economist who is now reflecting on the conference—including all that was said and all that we may have learned—I want to emphasize two key concepts that are central to finding solutions to the problems we now face. The first is the concept of “economic externalities.” We all know what that term means and we know that externalities lay at the heart of every discussion of climate change. And, the second concept I want to mention is that of “opportunity cost,” which recognizes that any choice we make is at the expense of other things we must leave behind.

Economics has been defined as the study of how limited resources are used to satisfy unlimited wants. If we were so lucky to be endowed with sufficient resources to be able to afford every good thing, life would be easy because we would not have to choose among alternatives, but then there would be little real work to keep economists employed. Unfortunately (or perhaps fortunately for economists), that is not the world in which we live. Instead, our opportunities and decisions are constrained by limited resources, and the best we can do is to choose wisely from among many good things.

In keeping with one major theme of our recent conference, let me provide an illustration drawn from the context of the global pandemic. We know that it would be good for all senior citizens and other vulnerable people to receive both doses of the vaccine as soon as possible. But, it would also be good for younger and healthy people to receive at least one dose as soon as possible. Both actions have beneficial effects, both are desirable in their own right, but we cannot have both. By committing to one, we give up the other.

My point is that we, as economists, must be careful when studying the potential beneficial impacts of any particular policy (whether it pertains to climate change, income distribution, public health, or other matters), to also identify just what that policy would require us to give up—we would take the chosen path instead of what? We have not done our job, and society cannot make sound decisions, until both parts of the analysis are complete; that is to say, until we have answered the question most fundamental to economics: “instead of what?”

James L. Smith

Careers, Energy Education and Scholarships Online Databases

IAEE is pleased to highlight our online careers database, with special focus on graduate positions. Please visit http://www.iaee.org/en/students/student_careers.asp for a listing of employment opportunities.

Employers are invited to use this database, at no cost, to advertise their graduate, senior graduate or seasoned professional positions to the IAEE membership and visitors to the IAEE website seeking employment assistance.

The IAEE is also pleased to highlight the Energy Economics Education database available at <http://www.iaee.org/en/students/eee.aspx>. Members from academia are kindly invited to list, at no cost, graduate, postgraduate and research programs as well as their university and research centers in this online database. For students and interested individuals looking to enhance their knowledge within the field of energy and economics, this is a valuable database to reference.

Further, IAEE has also launched a Scholarship Database, open at no cost to different grants and scholarship providers in Energy Economics and related fields. This is available at <http://www.iaee.org/en/students/ListScholarships.aspx>.

We look forward to your participation in these new initiatives.