



FERC Workshop/Trans-Atlantic Infraday (TAI)
New Methods and Models for Improving the Efficiency of Power Grid Operations and Planning:
Dealing with Nonconvexities and Variable Renewables

7 November 2013

General Energy Topics

8 November

Federal Energy Regulatory Commission (FERC)
888 First Street, NE Washington, DC 20426USA
3rd Floor Conference Center

Preliminary Program

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9.30 – 10.00 h	<p align="center">Welcome: Benjamin F. Hobbs, Johns Hopkins University Key Note Speaker: Richard O’Neill, FERC</p>	
10.00 – 12.30 h	<p>Transmission Networks 1 (Room A)</p> <p><i>Chair: Jonas Egerer, TU Berlin</i></p> <p>Anya Castillo (Johns Hopkins University) and Dennice F. Gayme (Johns Hopkins University) <i>Duality in Profit Maximizing Grid-Scale Storage Optimization for AC Networks</i></p> <p>Emily Fisher (Lawrence Berkeley National Laboratory) and Alan Sanstad (Lawrence Berkeley National Laboratory) <i>Comparison of Actual and Modeled Power Flows for the Eastern U.S.</i></p> <p>Coffee Break: 11:00-11:30</p> <p>Jonathan L. Ho (Johns Hopkins University), Venkat Krishnan (Iowa State University), Benjamin H. Hobbs (Johns Hopkins University), and James D. McCalley (Iowa State University) <i>Co-optimization of Transmission and Other Supply Resources</i></p> <p>Jonas Egerer (TU Berlin / DIW Berlin) and Hans Nylund (Luleå University of Technology) <i>Regional versus Bilateral Cost Sharing in Electricity Transmission Expansion</i></p>	<p>Electricity Markets 1: Pricing (Room B)</p> <p><i>Chair: Andrew L. Liu, Purdue University</i></p> <p>Chloé Le Coq (Stockholm School of Economics) and Henrik Orzen (University of Mannheim) <i>Bidding under a Price Cap - Evidence from an electricity market experiment</i></p> <p>Jorge Barrera (University of Virginia) and Alfredo Garcia (University of Virginia) <i>Auction Design for Market Coupling</i></p> <p>Coffee Break: 11:00-11:30</p> <p>Chiara Lo Prete (Harvard University) <i>Manipulation of Day-ahead Electricity Prices through Virtual Bidding</i></p> <p>Andrew L. Liu (Purdue University) <i>Implementing Real-Time Pricing in Smart-Grid with High Penetration of Renewable Resources and Plug-in Vehicles</i></p>
12:30 – 1.30 h	<p align="center">Lunch</p>	
1.30 – 3.30 h	<p>Transmission networks 2 (Room A)</p> <p><i>Chair: Christian von Hirschhausen, DIW Berlin</i></p> <p>Daniel Huppman (DIW Berlin) and Jonas Egerer (TU Berlin / DIW Berlin) <i>National-strategic Investment in European Electricity Transmission Capacity</i></p> <p>Daniel L. Shawhan (Resources for the Future) et al. <i>Does a Detailed Model of the Electricity Grid Matter? Estimating the Impacts of the Regional Greenhouse Gas Initiative</i></p> <p>Saamrat Kasina (Johns Hopkins University), Sonja Wogrin (Universidad Pontificia Comillas), and Benjamin F. Hobbs (Johns Hopkins University) <i>Tests of Approximations to Unit Commitment Models for Use in Generation and Transmission Planning Models</i></p> <p>Christian von Hirschhausen (DIW Berlin / TU Berlin), Jonas Egerer (TU Berlin / DIW Berlin), Clemens Gerbaulet (TU Berlin / DIW Berlin), and Casimir Lorenz (TU Berlin / DIW Berlin) <i>European Electricity Grid Infrastructure Expansion in a 2050 Context</i></p>	<p>Electricity Markets 2: Planning Models (Room B)</p> <p><i>Chair: Steven A. Gabriel, University of Maryland</i></p> <p>Ying Cheng (University of Maryland) <i>Electricity Market Development in Gulf Countries, an MPEC approach</i></p> <p>S. Jalal Kazempour (Johns Hopkins University), Antonio J. Conejo (University of Castilla La Mancha), and Carlos Ruiz (University Carlos III de Madrid) <i>Strategic Generation Investment</i></p> <p>Lin Deng (Johns Hopkins University), Piet Renson (Universidad Pontificia Comillas), and Benjamin F. Hobbs (Johns Hopkins University) <i>Economic and Environmental Impact Assessment for Wind Power Promoting Policies in Energy Spot Markets with Different Flexibilities</i></p> <p>Steven A. Gabriel (University of Maryland) and Chalida U-tapao (University of Maryland) <i>Wastewater to Energy, Stochastic MPEC</i></p>



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9.00 – 9.15 h	Opening Address: Steven A. Gabriel, University of Maryland	
9.30 – 10.30 h	<p>Regulation and Governance (Room A)</p> <p><i>Chair: Tim Brennan, Resources for the Future</i></p> <p>Frank A. Felder (Rutgers University) <i>Case Study of the New York Independent System Operator's Governance</i></p> <p>Tim Brennan (Resources for the Future) <i>An expanded distribution utility business model: Win-win, or win-maybe?</i></p>	<p>Oil and Gas (Room B)</p> <p><i>Chair: Seksun Moryadee, University of Maryland</i></p> <p>Mel Devine (University of Limerick) <i>Analysis of UK gas forward prices using a Rolling Optimisation Model</i></p> <p>Seksun Moryadee (University of Maryland) and Steven A. Gabriel (University of Maryland) <i>Impact of Panama Canal Expansion on LNG Shipping</i></p>
10.30 – 11.00 h	Coffee Break	
11.00 – 12.30 h	<p>Transportation (Room A)</p> <p><i>Chair: Sauleh Siddiqui, Johns Hopkins University</i></p> <p>James C. Jones (University of Maryland), David J. Lovell, and Michael O. Ball <i>The Reduction of Fuel Burn in Terminal Airspace Through En-Route Speed Control</i></p> <p>Seshadri Srinivasa Raghavan (University of Maryland) and Steven A. Gabriel (University of Maryland) <i>Equilibrium Modeling between the Energy and Transportation Industries</i></p> <p>Sauleh Siddiqui (Johns Hopkins University) and Jimi Oke (Johns Hopkins University) <i>Modeling Policy Decisions in Energy and Transportation Networks Using Multiobjective Programs with Equilibrium Constraints</i></p>	<p>Emissions (Room B)</p> <p><i>Chair: Anthony Paul, Resources for the Future</i></p> <p>Valeria Di Cosmo (Trinity College Dublin) and Laura Malaguzzi Valeri (University Trinity College Dublin) <i>The effect of Wind on Electricity CO₂ Emissions: The Case of Ireland</i></p> <p>Dallas Burtraw (Resources for the Future), Karen Palmer, Anthony Paul, and Matt Woerman <i>The Clean Air Act as US Climate Policy</i></p> <p>Anthony Paul (Resources for the Future), Blair Beasley, and Karen Palmer <i>Taxing Electricity Sector Carbon Emissions at Social Cost</i></p>
12.30 – 1.30 h	Lunch	
1.30 – 3.30 h	<p>Biofuels Demand Management (Room A)</p> <p><i>Chair: Mona Asudegi, University of Maryland</i></p> <p>Yongxi Huang (Clemson University) <i>An Integrated Biofuel Supply Chain to Cope with Feedstock Seasonality and Uncertainty</i></p> <p>Adam Christensen (Johns Hopkins University) and Sauleh Siddiqui (Johns Hopkins University) <i>Dynamics of Renewable Identification Numbers used for Compliance with the Renewable Fuel Standard</i></p> <p>Demand Management <i>Chair: Tim Brennan, Resources for the Future</i></p> <p>Bill Champion (University of Maryland) and Steven A. Gabriel (University of Maryland) <i>Two-Level, Mixed-Integer Programming Models for Energy Conservation Measures</i></p> <p>Mona Asudegi (University of Maryland) and Ali Haghani (University of Maryland) <i>Dynamic Demand Management with Real Time Pricing in Smart Grid</i></p>	<p>Wind and Generator Flexibility (Room B)</p> <p><i>Chair: Ben Hobbs, Johns Hopkins University</i></p> <p>Antonio Alvarez (Pacific Gas and Electric Company) and Gary L. Schultz (LLC) <i>Operating Flexibility Metrics and Resource Planning with Renewables</i></p> <p>Xinyuan Zhu (University of Maryland) and Qingbin Cui (University of Maryland) <i>Offtake Strategies for Renewable Energy Projects under Uncertainty</i></p> <p>Miguel Anjos (Polytechnique Montreal) <i>Optimization of Wind, Diesel and Battery Systems for Remote Areas</i></p> <p>Ben Hobbs (Johns Hopkins University) and Beibei Wang (Southeastern University of China) <i>Efficiency of Markets for Generator Ramp Capability in Electricity Spot Markets</i></p>

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www.tai.umd.edu (information) and www.regonline.com/TAI2013

Note the related event:
Saturday, 9 November 2013
Hiking trip
(details TBD)

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