



## FERC Workshop/Trans-Atlantic Infraday (TAI)

### Electricity Markets and Planning

6 November 2014

### Energy Infrastructure and Systems

7 November 2014

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

## Revised Preliminary Program

### Thursday, 6 November 2014

|                                   |  |  |
|-----------------------------------|--|--|
| 12.30 – 12.45 h<br>12.45 – 1.30 h | <p><b>Welcome: Richard O'Neill, FERC</b><br/> <b>Plenary Speaker: Miguel F. Anjos, Polytechnique Montréal</b><br/> <b>"Bilateral Contract Optimization in Power Markets"</b></p>   |  |
| 1.30 – 2.15 h                     | <p><b><u>Demand Management</u></b><br/>(Room A)</p> <p><i>Chair: Ben Hobbs, Johns Hopkins University</i></p> <p>Meng Shen and Qingbin Cui, <i>University of Maryland</i><br/><i>Personality Factors for Behavior Driven Energy Efficiency</i></p> <p>Li Zhao and Benjamin Hobbs, <i>Johns Hopkins University</i><br/><i>Determinants of the Effectiveness of Residential Electricity Demand Response Programs: A California Case Study</i></p>   | <p><b><u>Electricity Markets</u></b><br/>(Room B)</p> <p><i>Chair: Janne Kettunen, George Washington University</i></p> <p>Marie Hyland, <i>Economic and Social Research Institute and Trinity College Dublin, Ireland</i><br/><i>Restructuring European electricity markets - a panel data analysis</i></p> <p>Janne Kettunen (<i>George Washington University</i>) and Derek W. Bunn (<i>London Business School</i>)<br/><i>Risk Induced Path Dependency in Resource Acquisition</i></p>   |
| 2:30 – 2.45 h                     | <p><b>Coffee Break</b></p>   |  |
| 2.45 – 4.45 h                     | <p><b><u>Demand Management</u></b><br/>(Room A)</p> <p><i>Chair: Alfredo Garcia, University of Virginia</i></p> <p>Qianli Deng, Qingbin Cui (<i>University of Maryland</i>) and Xianglin Jiang (<i>Fudan University</i>)<br/><i>A simulation-based decision model for designing contract period in energy performance contracting</i></p> <p>Åsa Grytli Tveten, Iliana Ilieva, and Torjus Folsland Bolkesjø, <i>Norwegian University of Life Sciences</i><br/><i>Electricity Market Impacts of Increased Demand Flexibility Enabled by Smart Grid</i></p> <p>S. Jalal Kazempour, Venkat Prava, and Benjamin Hobbs, <i>Johns Hopkins University</i><br/><i>The Value of Demand Response in Wind-integrated Electricity Market: A Stochastic Equilibrium Model</i></p> <p>Alfredo Garcia, <i>University of Virginia</i><br/><i>Mechanism Design for Demand Aggregation</i></p> | <p><b><u>Electricity Markets</u></b><br/>(Room B)</p> <p><i>Chair: Dan Shawhan, Resources for the Future</i></p> <p>Robin Broder Hytowitz and Benjamin Hobbs, <i>Johns Hopkins University</i><br/><i>Challenges for Balancing Area Coordination Considering High Wind Penetration</i></p> <p>Pradyumna C. Bhagwat, Laurens J. de Vries (<i>Delft University of Technology</i>), and Benjamin Hobbs (<i>Johns Hopkins University</i>)<br/><i>Seams Issues in Capacity Markets</i></p> <p>Mark B. Lively, <i>Utility Economic Engineers</i><br/><i>Did Imperialism Kill Micro-Grids? Is the Regulatory Mindset Preventing Electrification?</i></p> <p>Alberto J. Lamadrid, Daniel L. Shawhan, Yujia Zhu, Daniel J. Tylavsky, Carlos E. Murillo-Sanchez, Andrew Kindle, Ray D. Zimmerman, <i>Cornell University</i><br/><i>Cost-Benefit Analysis of Five Power System Changes Using Hybrid Stochastic-Robust Optimized Dispatch of Storage, Generation, and Loads</i></p> |

### Friday, 7 November 2014 (Next Page)

Contact: Seksun Moryadee, smoryade@umd.edu and [transatlantic\\_infraday@umd.edu](mailto:transatlantic_infraday@umd.edu)  
[www.tai.umd.edu](http://www.tai.umd.edu) (information)

Note the related event:  
Saturday, 8 November 2014  
Hiking trip  
(details TBD)

Contact: Seksun Moryadee, smoryade@umd.edu



**Friday, 7 November 2014**

|                        |  |  |
|------------------------|--|--|
| <p>9:00– 10.30 h</p>   | <p><b><u>Environment and Carbon</u></b><br/>(Room A)</p> <p><i>Chair: Anthony Paul, Resources for the Future</i></p> <p>Olivier Massol, Stéphane Tchong-Ming( <i>IFP Énergies Nouvelles</i>) Albert Banal-Estañol ( <i>City University London</i>)<br/><i>Joining the CCS Club! The Economics of CO2 Pipeline Projects</i></p> <p>Xiaoyu Liu and Qingbin Cui, <i>University of Maryland</i><br/><i>Assessing the Impacts of Preferential Procurement on Low-Carbon Building</i></p> <p>Sophie Pan, Anthony Paul, and Dallas Burtraw, <i>Resources for the Future</i><br/><i>A Perspective on the Clean Power Plan: Rate Versus Mass and the Covered Sector</i></p>                               | <p><b><u>Wind Energy</u></b><br/>(Room B)</p> <p><i>Chair: Valeria Di Cosmo, Trinity Colleague Dublin</i></p> <p>Ali Daraeepour (Duke University),Jalal Kazempour( <i>Johns Hopkins University</i>), Antonio Conejo ( <i>Ohio State University</i>) and Dalia Patino-Echeverri ( <i>Duke University</i>)<br/><i>Wind Power Integration and Consumer Behavior: a Complementarity Approach</i></p> <p>Ian B. Page, <i>University of Maryland</i><br/><i>The Effect of Wind Power on Market Conditions</i></p> <p>Valeria Di Cosmo and Laura Malaguzzi Valeri, <i>Trinity College Dublin</i><br/><i>The Effect of Wind on Wholesale Electricity Prices: the Case of Ireland</i></p>   |
| <p>10.30 – 10.45 h</p> | <p style="text-align: center;"><b>Coffee Break</b></p>   |  |
| <p>10:45-11:30 h</p>   | <p style="text-align: center;"><b>Plenary Speaker: Ross Baldick, <i>University of Texas</i></b><br/><b>"Electric vehicle charging and transmission and distribution infrastructure"</b></p>  |  |
| <p>11.30 – 12.30 h</p> | <p><b><u>Electricity Market Data</u></b><br/>(Room A)</p> <p><i>Chair: Emily Fisher, Lawrence Berkeley National Laboratory</i></p> <p>William Booth, <i>EIA</i><br/><i>The EIA-930 Survey Hourly Electric Operating Data</i></p> <p>Jagjit Singh, <i>Open Access Technology International, Inc.</i><br/><i>Historical Interface Loading Analysis for Schedule and Actual flows on the Eastern Interconnection</i></p>  | <p><b><u>Electricity Market Restructuring</u></b><br/>(Room B)</p> <p><i>Chair: Frank A. Felder, Rutgers University</i></p> <p>Frank A. Felder, Gene X. Shan and David W. Coit, <i>Rutgers University</i><br/><i>Multi-objective Framework for Evaluating Resiliency Measures for Electric Power Systems</i></p> <p>Gene X. Shan, Frank A. Felder, and David Coit, <i>Rutgers University</i><br/><i>Role of Governance in Independent Decision Making for Building Electric Infrastructure Resilience</i></p>  |
| <p>12.30 – 1.30 h</p>  | <p style="text-align: center;"><b>Lunch</b></p>  |  |
| <p>1.30– 3:00 h</p>    | <p><b><u>Transportation</u></b><br/>(Room A)</p> <p><i>Chair: Sauleh Siddiqui, Johns Hopkins University</i></p> <p>William Komiss, <i>CNA</i><br/><i>Navy Alternative Fuel Vehicle</i></p> <p>James C. Jones, David J. Lovell and Michael O. Ball, <i>University of Maryland</i><br/><i>The Reduction of Fuel Burn in Terminal Airspace through En-Route Speed Control in the Presence of Demand Uncertainty</i></p> <p>Sauleh Siddiqui, <i>Johns Hopkins University</i><br/><i>Equilibrium Model of the Biofuel Market to Determine Optimal Volumes for the Renewable Fuel Standard</i></p>   | <p><b><u>Transmission</u></b><br/>(Room B)</p> <p><i>Chair: Christian von Hirschhausen, DIW Berlin, TU Berlin</i></p> <p>Anya Castillo ( <i>FERC, Johns Hopkins U.</i>), Paula Lipka ( <i>U. California Berkeley</i>), Jean-Paul Watson ( <i>Sandia National Laboratories</i>), Richard P. O'Neill ( <i>FERC</i>)<br/><i>The Current-Voltage (IV) Successive Linear Program of the ACOPF</i></p> <p>Daniel Huppmann, <i>DIW Berlin</i><br/><i>Network expansion to mitigate market power</i></p> <p>Jonas Egerer, Wolf Schill ( <i>DIW Berlin</i>), presented by Christian von Hirschhausen ( <i>DIW Berlin, and TU Berlin</i>)<br/><i>Optimal Infrastructure Investments for Renewable Energy Integration in Germany</i></p>  |
| <p>3:00 – 3.15 h</p>   | <p style="text-align: center;"><b>Coffee Break</b></p>   |  |
| <p>3.15 – 4:45 h</p>   | <p><b><u>New Energy Technologies</u></b><br/>(Room A)</p> <p><i>Chair: Dalia Patino, Duke University</i></p> <p>Rubenka Bandyopadhyay and Dalia Patino, <i>Duke Univ.</i><br/><i>Flexible Operation of Post Combustion Amine-Based CC with a Colocated Wind Farm</i></p> <p>Bandar Alqahtani and Dalia Patino-Echeverri, <i>Duke University</i><br/><i>Integrated Solar Combined Cycle (ISCC) Power Plants: An Alternative to Integrate Solar Energy in Current Power Systems.</i></p> <p>Mark D. Bryfogle, <i>Anlage Distributed Generation</i><br/><i>Application of Internal Combustion Free Piston Generation in the Micro Distributed Generation and Combined Heat and Power Market</i></p> | <p><b><u>Market Equilibrium Modeling</u></b><br/>(Room B)</p> <p><i>Chair: Steven A. Gabriel, University of Maryland</i></p> <p>Mel Devine ( <i>University of Limerick</i>), Steven Gabriel, and Seksun Moryadee ( <i>University of Maryland</i>)<br/><i>A Rolling Optimization Approach for Stochastic MCPs with Endogenous Uncertainty: Application to Gas Markets</i></p> <p>Andrew J. Blohm, Steven A. Gabriel ( <i>University of Maryland</i>) and Jeremy Lin ( <i>PJM</i>)<br/><i>Formulation of a Rolling Optimization Approach for Stochastic MCPs with Endogenous Uncertainty: Application to Electricity Markets</i></p> <p>Seksun Moryadee, Steven Gabriel ( <i>University of Maryland</i>) and Francois Rehulka ( <i>EDF</i>)<br/><i>The Influence of The Panama Canal on Global Gas Trade</i></p> |