

# Electricity Market Economics (EME) Subcommittee A subcommittee Under Power Systems Operation (PSO) Committee

Meeting Minutes - 2015 IEEE PES GM - Tuesday July 28, 2015

Web: <a href="http://ewh.ieee.org/cmte/psoc/eme.html">http://ewh.ieee.org/cmte/psoc/eme.html</a>

Chair: Hamid Zareipour, University of Calgary, Canada Secretary: Andre Diniz, Brazilian Electric Energy Research Center (CEPEL)

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**Scope** This subcommittee addresses power systems operations problems related to electricity market economics.

Operations problems concerning the market operator, the independent systems operator, network operators, the regulator, the producers, the retailers and the consumers are of interest of this subcommittee.

Policy, economics, optimization and other analytical tools to address such operations problems are also of interest. Practitioner views and the embodiment of these views within analytical decision making procedures pertain also this subcommittee.



# Attendees:

#	Name	Affiliation	Contact Email
1	Alex Papalexopolous	Ecco Int	alexp@eccointl.com
2	Andre Luiz Diniz	CEPEL	diniz@cepel.br
3	Anthony Papavasiliou	Uni Catholice de Louvain	anthony.papavasiliou@uclouvain.be
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25	Ramteen Sioshansi	Univ. Ohio	sioshansi.1@osu.edu
26	Rohit Bhakar	University of Bath	rohitbhakar@gmail.com
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39	Zhenyu Fan	PJM	zhenyu.fan@pjm.com

## 1. Meeting was called to order at 12pm.

## 2. Chair's opening remarks

The chair welcomed attendees. Also, the scope of the SC was briefly discussed. The chair reviewed the meeting agenda, which was approved by the meeting attendees.

## 3. Balance of activities sponsored by the SC:

The chair then reviewed the four panel session that were organized by this SC for GM 2014, as follows:

#### 3.1. Panel Sessions

Title: Natural Gas and Electricity Coordination - Experiences and Challenges

Co-Chairs: Xing Wang, R&D Director, Alstom Grid (xing.wang@alstom.com) and Tongxin Zheng, Manager, ISO-

NE (tzheng@iso-ne.com) Tuesday, July 28, 2015

8:00 AM - 10:00 AM - Governor's Square 14

Title: Decision Support Tools for Energy Storage Operations

Co-Chairs: Ramteen Sioshansi, Ohio State University (sioshansi.1@osu.edu) and Udi Helman, Helman Analytics

(uhelman@yahoo.com) Tuesday, July 28, 2015

10:00 AM - 12:00 AM - Governor's Square 12



Title: Flexible Operation Scheduling and its Economic Impacts on Markets

Co-Chairs: Jim Price, California ISO (JPrice@caiso.com) and Rahimi, OATI (farrokh.rahimi@oati.net)

Thursday, July 30, 2015

8:00 AM - 10:00 AM - Governor's Square 12

Title: Effects of Contract Design on Electricity Market Performance with Increased Penetration of Distributed

**Energy Resources and Variable Generation** 

Chair: Leigh Tesfatsion, Iowa State University (tesfatsi@iastate.edu)

Thursday, July 30, 2015

10:00 AM - 12:00 AM - Governor's Square 12

Previous panel sessions organized by this SC are copied below for reference.

- 1) Complexity versus Simplification in Electricity Markets (IEEE PES GM2014)
- 2) Multi-stage Optimization and Its Impact on Electricity Market (IEEE PES GM2014)
- 3) Design and implementation of ancillary service markets that enable a reliable and efficient power system with increasing penetrations of variable energy resources (IEEE PES GM2014)
- 4) Managing Uncertainty in Power System and Market Operations II Comparison between Stochastic and Robust Optimization (IEEE PES GM2013)
- 5) Smart Dispatch with Demand Response and Distributed Energy Resources: Business Models, Methodology and Incentives (IEEE PES GM2013)
- 6) Operational and Market Challenges in Markets with High Penetration of Renewable Energy Sources (IEEE 2012GM)
- 7) Toward Efficient System Operation: Generation Perspective (IEEE 2012GM)
- 8) Smart Dispatch for Operational Uncertainty Management (IEEE 2012GM)
- 9) Smart Dispatch for Grid and Market Management (co-sponsored by PSACE) (IEEE 2011GM)
- 10) Measuring Market Efficiency in Power System Operation: Transmission Perspective (IEEE 2011GM)
- 11) Smart Grid Support for Dynamic Pricing (IEEE 2011GM)
- 12) Improved Power System Operations with High Penetration of Wind Power: A Dialog Between Academia and Industry (co-sponsored by WPCC and PSOM) (IEEE 2010GM)
- 13) Risk constrained power system operation: how far are we from market efficiency(IEEE 2010GM)
- 14) Test Systems for Economic and Reliability Analysis (organized by PSACE, co-sponsored by PSOC) (IEEE 2010GM)
- 15) Equilibrium of Electricity Market Efficiency and Power System Operation Risk: State-of-the-art and Tomorrow (IEEE 2009GM)
- 16) Interaction between emission market and electricity market (co-sponsored by PSACE) (IEEE 2009GM)
- 17) Impact of high penetration of wind power on power system operations (co-sponsored by WPCC and PSOM) (IEEE 2009GM)

#### 3.2. Task Forces

The ongoing task forces under this committee are as follows:

3.2.1. Task Force Title: Electricity and natural gas market coordination

Chair: Xing Wang, R&D Director, Alstom Grid



Secretary: Tongxin Zheng, Manager, ISO-NE

Tentative Participants: Andy Ott, PJM, Jay Caspary, SPP, Jim Price, CAISO, Yonghong Chen and Nivad Navid,

MISO, Daniel Kirschen, University of Washington

3.2.2. Task Force Title: Decision Support Tools for Energy Storage Investment and Operations

Chair: Ramteen Sioshansi, Associate Professor, The Ohio State University

Secretary: Udi Helman, Consultant

Tentative Participants: Paul Denholm, NREL; Seyed Hossein Madaeni, PG&E; Alva Svoboda, PG&E

3.2.3 WG on "Test Systems for Economic Analysis" (Co-sponsored with PSACE)

Chair: Prof. Xiao-Ping Zhang

Status: under development (More information on: <a href="http://sites.ieee.org/pes">http://sites.ieee.org/pes</a>-ses/working-groups-and-task-

forces/wg-on-test-systems-for-economic-analysis/)

#### 4. Discussion on current and Future activities

Some comments were made regarding topics for future panel sessions, such as: energy storage markets; capacity markets; congestion management; environmental regulation analysis; retailed market facilitated by TSO and transactive energy; decision support tool for mobilizing transmission flexibility management, among others.

The attendees were asked to send proposals for panel sessions for the 2016 IEEE PES General Meeting by Sept 15<sup>th</sup>. The chair informed that the SC should have two 4-hour slots, that may be turned into four 2-hour panels.

## 5. Other business and adjourn

Meeting was adjourned at 12:45 pm.