### **IEEE-PES-PSACE Committee Main Meeting**

### **General Meeting 2015**

Wednesday, July 29<sup>th</sup>, 2015 9:00 – 12:00 Sheraton Denver Downtown – Columbine Room Denver Colorado

## 1) Welcome and member introductions

PSACE Chair Joydeep Mitra opened the meeting at 9:00 AM. The attendance is shown in Attachment A; 25 persons being present for part or all of the meeting. Introductions were made.

# 2) Adopt agenda

There was some confusion about which version of the agenda was the most recent, but the final version was located and approved by a voice vote.

## 3) Approval of 2014 meeting minutes

It was suggested that any comments on previous meeting minutes should be written instead of oral. This is specifically important for the subcommittee reports which were still missing some information. To this effect, an e-mail will be sent to the subcommittee chair no later than August 15<sup>th</sup> to fill in any missing data. Additionally, all subcommittee reports will not be in a written, and not oral, form.

## 4) PSACE Reorganization

PSACE is part of the larger reorganization effort that is occurring in the PES technical committees. It is expected that it will grow in size. As part of the reorganization PSACE will become Analytical Methods for Power Systems (AMPS) committee. The major structural changes include:

- The SES Subcommittee will move to a different parent committee.
- AMPS will gain the General Systems Subcommittee from T&D
  - The focus of the SC is on electromagnetic transients
  - o The SC will discuss changing the name to better reflect the focus
  - o This will be finalized at the GM 2016.
- AMPS will stand up a new Big Data Analytics Subcommittee
  - o Chair: Le Xie Texas A&M (Voted on and approved)
  - Le Xie will select the initial SC leadership
  - This process was started prior to the reorganization
  - o There are two areas; big data and data analytics
  - The Sc is scheduled to be approved as part of the reorganization by the IEEE PES Board at the GM 2016.

The old PSACE structure will be used for the 2016 PES General Meeting. At the Committee meeting in Boston the transition to AMPS is scheduled to occur, along with the structure change in subcommittees.

Website will need to be updated to reflect these changes. Additionally, the PSACE website will begin to transition to the new ieee.site sites as the transition to AMPS occurs.

The scope of AMPS is changed from that of PSACE, and has been sent to members for review. There were a number of concerns about the new name not containing the words "computational" or "modeling". A survey will be set up by Kevin Schneider and input from all Subcommittees collected by August 14<sup>th</sup>.

## 5) TCPC Report on the GM2015 papers and sessions

For the 2015 IEEE PES Kwok Chung was the TCPC. 264 conference papers were submitted to the PSACE area, 108 accepted 156 rejected; 40.9% acceptance. The breakdown by subcommittee is shown below.

	Accepted	Rejected	Total
CAMS	21	35	56
DSAS	27	40	67
ISS	15	16	31
RRPAS	13	23	36
SES	25	27	52
MISC	7	15	22
PSACE	108	156	264

PSACE also had 19 panel sessions. 12 were 4 hour panels. 2 panel sessions did not occur.

## 6) Subcommittee activity reports

This is the last year that the current PSACE subcommittee structure will be reported on. With the transmission to AMPS, there SES will no longer be part of this committee, and a new subcommittee will be include. For this year:

### Computing and Analytic Methods (CAMS) Subcommittee Report

Chair: Manimaran Govindarasu Vice Chair: Zhenyu (Henry) Huang Secretary: Mallikarjuna Vallem Past Chair: Ivana Kockar

Website: http://ewh.ieee.org/cmte/psace/CAMS.html

### List of active WGs, and the Chairs:

- Understanding, Prediction, Prevention and Restoration of Cascading Failures: Milorad Papic
- High Performance Computing for Grid Analysis: Henry Huang & Zeb Tate
- WG on Test Systems: TBD

#### List of active TFs, and the Chairs:

- Power System Modeling and Integration Using CIM Standards: Enamul Haq
- Cyber Security in Power Systems: Manimaran Govindarasu
- Open Source Software: Federico Milano, final report to be presented at the GM 2016.
- Big Data Driven Analytics for Smart Grid Operations: Le Xie

#### Panels sponsored at 2015 PES GM

- Bridging the Knowledge Gap between Power Engineering and Cyber Security
- Cascading Failures: Advanced Methodologies, Restoration and Industry Perspectives
- High-Performance Computing in Power Systems Planning
- The Computation of Dynamic Transfer Limits with Contingencies and Remedial Action Schemes in Real Time and Look Ahead Modes
- Using Big Data to Enhance Transmission System Planning and Operations
- Distributed Control and Intelligence for Future Power System Networks

### Panels proposed for 2016 PES GM

- Cascading dynamics, protection, validation and data [Alex Flueck and Ian Dobson]
- High Performance Computing for Grid Operations What Can be Learned from Other Fields? [John Grosh]
- The Benefits of CIM Standards in Managing BIG Data of Transmission & Distribution Systems
   [Enamul Haq, Margaret Goodrich]
- Tools for Managing Electricity Markets and Reliability for Grid with Very High Renewable Resources [Enamul Haq]
- Cyber Physical System (CPS) Security Metrics and Methodologies [Manimaran Govindarasu, Adam Hahn]
- Power System Resiliency: Definition, Metrics, and Tools [Yin Xu, Chen-Ching Liu]
- Power System Restoration [Wei Sun, Chen-Ching Liu]

## <u>Distribution System Analysis (DSA) Subcommittee Report</u>

Chair: Greg Shirek

Vice Chair: Sarika Khushalani Solanki

Secretary: Jason Fuller
Past Chair: Kevin Schneider

Website: <a href="http://ewh.ieee.org/soc/pes/dsacom/">http://ewh.ieee.org/soc/pes/dsacom/</a>

### List of active WGs, and the Chairs:

• Test Feeder: Jason Fuller

Distribution State Estimation: Bikash Pal

#### List of active TFs, and the Chairs:

None

#### Panels sponsored at 2015 PES GM

• International Coordination of Distribution System Planning

#### Panels proposed for 2016 PES GM

- International Coordination of Distribution Time Series Based System Modeling with DER
- Distribution System DER Hosting Capacity
- Data Measurements and Integration Challenges for Distribution State Estimation
- Stochastic Modeling and Analysis for Distribution Systems/Microgrids

### **Intelligent System (ISS) Subcommittee Report**

Chair: Zita A. Vale

Vice Chair: Sukumar Mishra

Secretary: TBD

Past Chair: Alexandre P. Alves Da Silva Website: <a href="http://sites.ieee.org/pes-iss/">http://sites.ieee.org/pes-iss/</a> List of active WGs, and the Chairs:

- Intelligent Control Systems: Ganesh Kumar Venayagamoorthy
- Intelligent Data Mining and Analysis: Zita Vale

### List of active TFs, and the Chairs:

- Agent-Based Modeling: Ivana Kockar, Koen Kok and Zita Vale
- Micro-Grid Control System: Jignesh Solanki

## Reliability Risk and Probability Application (RPPA) Subcommittee Report

Chair: Milorad Papic
Vice Chair: Chris Dent
Secretary: Masood Parvania
Past Chair: Andrew Ford

Website: http://ewh.ieee.org/cmte/pes/rrpa/

### List of active WGs, and the Chairs:

- Loss of Load Expectation Best Practices: Chris Dent
- Probability Applications for Common Mode Events in Electric Power Systems: Milorad Papic
- Renewal of Standard 762: Alex Schneider
- Renewal of Standard 859: TBD

#### List of active TFs, and the Chairs:

- History of RRPA SC: Murty Bhavaraju
- Reliability Consideration in Emerging Cyber-Physical Electrical Energy Systems: Aravinthan Viswanathan
- Reliability Impacts of Demand Response Integration (RIDRI): Masood Parvania
- RPPA Awards: Douglas Logan

#### Panels sponsored at 2015 PES GM

- Demand Response for Reliable Integration of Variable Renewable Energy
- Industrial resource adequacy studies: current practices and research needs
- Probabilistic System Planning
- Cascading Failures: Advanced Methodologies, Restoration and Industry Perspectives

### Panels proposed for 2016 PES GM

- Modelling and Analysis of Common-Mode and Dependent Outages in Power Systems
- Reliability analysis for power systems in developing countries
- Analytical Research Foundations for the Next-Generation Electric Grid
- Reliability Modeling for Cyber-Physical Power Systems

### System Economics (SES) Subcommittee Report

Chair: François Bouffard Vice Chair: Kwok Cheung Secretary: Ning Lu, North Past Chair: Ross Baldick

## Website: <a href="http://sites.ieee.org/pes-ses">http://sites.ieee.org/pes-ses</a>

### List of active WGs, and the Chairs:

- Sustainable Energy Systems for Developing Communities: Joseph Mutale
- Prize Paper Award Nomination: Chris Mensah-Bonsu
- Demand Response: Ning Lu
- Network Charging: José W. Marangon Lima
- Test Systems for Network Analysis: Xiao-Ping Zhang
- Economics of Energy Storage: Pengwei Du

#### List of active TFs, and the Chairs:

None

### Panels sponsored at 2015 PES GM

- Impacts of Variability, Uncertainty and Forecasting Errors on Power System Operational Planning
- Market-based Approaches for Demand Response
- Wholesale and Retail Market Interaction Requirements for Effective Demand-side Participation
- Large-scale electric energy storage integration into the grid: Current Practices and Emerging Applications

## Panels proposed for 2016 PES GM

• 8-2 hour panels are proposed

# 7) Officer reports

During the 2015 PES GM the Chair is Joydeep Mitra. Officer rotation occurred this year so this is the first year with Joydeep as the chair. Joydeep thanked Dagmar for her work with the reorganization from PSACE to AMPS. As part of his role last year as the awards chair, he listed the awards:

- PES level: Roy Billinton Power System Reliability Award went to Murty Bhavaraju
- New fellows: Javier Contreras; Manimaran Govindarasu; Stephen McArthur; Surya Santoso
- PSACE Distinguished Service Award: Francois Bouffard
- PSACE Prize Paper Award: Javad Lavaei and Steven Low, "Zero Duality Gap in Optimal Power Flow Problem"
- PSACE Outstanding WG award for report/standard/guide: Std 729, Chair: Tom McDermott
- PSACE Outstanding WG award WG on "Understanding, Prediction, Mitigation and Restoration of Cascading Failures." Chair: Milorad Papic

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During the 2015 PES GM the Vice Chair is Alex Schneider. In this position he is also the chair of the new awards Working Group. It was noted that each committee can give one service, and multiple WG/TF awards, as well as prize paper awards. As with the majority of the PES, there is a need for more awards nominations.

During the 2015 PES GM the Secretary is Kevin Schneider. A Survey Monkey site has been sent to all persons in attendance at the meeting to vote on preference for the new Committee name. Specially, is the AMPS acronym acceptable? If not, what do you suggest?

Kevin suggested that as part of the change from PSACE to AMPS that the website should be transitioned to the new ieee.site location. This was agreed on and will commence.

## 8) Committee liaison reports

A follow-up with Chris Dent needs to occur on the standards meeting. Tom McDermott is tentatively the committee liaison.

# 9) Miscellaneous items

A discussion was held on using GitHub for revision tracking on all system models. This will be started with the Test Feeder Working Group.

# 10) New business

There is currently a need to fill three positions.

- PSACE standards coordinator, tentatively Tom McDermott
- RPPA standard coordinator
- PSACE Fellows Representative, Sando for 2015 and 2016, but has asked to step down in 2017 Sandoval Carneiro has served in this position for the years 2015 and 2016 but has asked to be released for 2017 and beyond.

# 11) Close Out

The meeting was declared adjourned at 12:00 PM. Respectfully submitted,

Kevin P. Schneider Secretary