

Meeting Minutes

November 11, 2014

Members

Ron Ambrosio, IBM T.J. Watson Research Center
Ward Camp, Landis + Gyr
Mark Knight, CGI
James Mater, Quality Logic
Tracy Markie, Engenuity
Ken Wacks, consultant to Sensus Metering Systems Inc.
Jeff Taft, PNNL

Members Not Present

David Forfia, Electric Reliability Council of Texas (ERCOT)
Mark Kerbel, REGEN Energy Inc.
Jeff Gooding, California Edison
Heather Sanders, CA-ISO
Doug Houseman, EnerNex
Tom Sloan, Kansas State Legislator

Members Emeritus

Erich Gunther, EnerNex, Inc.

Support – Pacific Northwest National Laboratory (PNNL)

Sherry Kowalski, PNNL
Ron Melton, PNNL

Atefe Makhmalbaf, PNNL
Abhishek Somani, PNNL

Speakers and Guests

Bill Cox, Cox Software Architects, LLC
Rish Ghatikar, Lawrence Berkeley National Laboratory
Stephen Knapp, Power Generation Services, Inc.
Larry Lackey, TIBCO Software, Inc.
David LeVee, Pwrcast
Dean Prochaska, NIST
Leonard Tillman, Balch, Inc.
Michael Danziger, Deloit
Jarrid Hall, CSG International
Larry Rubenacker, Teradata
David Katz, Ontario Hydro
Gordon Matthews, BPA

Administrative

Welcome and Administrative Business

Ron Melton, GWAC Administrator

Ron Melton called the meeting to order at 1:06 PM.

Ron Melton reviewed the agenda and read the proprietary information disclosure policy according to the bylaws to the GWAC members and guests.

Review of Action Items

Ron Melton, GWAC Administrator

- Ron Ambrosio to invite Pedro Rodriguez from Abengoa to be a speaker for the TEC International Panel. Ron Ambrosio reported that Abengoa will send a representative to speak at the Transactive Energy Conference. Ron was unable to secure a Korean speaker for the International Panel.
- Form TE Decision Makers Working Group. An update on this action item is address later in the meeting.
- Doug Houseman and Eric Gunther to continue to work on the effort to have the Interoperability Context Setting Framework as an IEEE technical document. Erich Gunther reported that progress is slow but ongoing.
- Doug Houseman and Jason Crabtree to continue work on the Transactive Energy Cyber Security paper. Due to Doug Houseman being unavailable, an update was not provided.
- Ron Melton, Mark Knight and Mark Kerbel to finalize revision/edits on the Transactive Energy Framework and to distribute to the Council for review.
- Doug Houseman to continue work on the GWAC Mutual Assistance / Emergency Response working group. An update on this action item is addressed later in the meeting.
- Ken Wacks to continue work on the GWAC Interoperability Context Setting Framework as an ISO/IEC Standard effort. An update on this action item is addressed later in the meeting.

Approval of Minutes

Ron Melton, GWAC Administrator

Sherry Kowalski is finishing the proceedings from the September face-to-face meeting and workshop to be approved at the November meeting.

Calendar Review

Ron Melton reviewed the calendar for the GWAC meetings and the upcoming outreach dates.

GWAC 2014 Face-to-Face Meetings:

- December 9 – Portland, OR

GWAC 2014 Events:

- December 10-11, International Transactive Energy Conference, Portland OR

2015 Meeting dates will be scheduled soon.

Conference and Event Planning

Transactive Energy Conference 2014

Ron Melton provided a status update on the 2nd International Energy Conference which will be held December 10-11, 2014, in Portland, Oregon. The venue will be hosted by Portland General Electric at the World Trade Center in Portland, Oregon. A GWAC face-to-face meeting will be held for a half-day, the day prior, on December 9, 2014.

Keynote Speakers:

The Program Committee has finalized the TEC's keynote speakers.

- Day 1
 - Opening keynote – Carl Pechman, DOE, Senior Advisor for Electricity
 - Lunch keynote - Carl Imhoff, PNNL, Sector Manager
- Day 2
 - Morning Keynote - Carl Zichella, NRECA, Director of Western Transmission
 - Lunch Keynote - David Owens, EEI, Executive Vice President, Business Operations

Foundational Session

A GWAC Foundation Session Working Group developed the draft slide deck and distributed it to the Council for review and input. A web meeting was held November 10, 2014, where the group formulated specific discussion items and the presentation flow. Assignments were made for further development of items and the slide deck, due back on November 17, 2014. Working group will be meeting weekly until the conference.

Paper Sessions

The paper sessions will include two sessions each day for a total for four sessions. The sessions are to set up the workshop discussions following each paper session. The TEC Call for Papers closed, submissions were reviewed by the committee and abstracts will be chosen on October 15, and authors notified by October 20. GWAC session assignments are as follows:

- Business and Policy Barriers: Lead – David Forfia; Deputy – Ward Camp
 - Becky Harrison, GridWise Alliance
 - Future of the Grid – Evolving to Meet America's Needs
 - Usman Sindhu, Siemens
 - Demystifying Challenges of Transactive Distribution Grid (TDG) and Finding Innovative Solutions
 - Bernie Neenan, EPRI
 - A framework for measuring the impacts of price and demand response
 - Ed Cazalet, TeMix, Inc.
 - Business and Regulatory Models for Transactive Energy
- Customer Engagement: Lead – Mark Kerbel; Deputy – Tracy Markie

- Teresa Waugh, Bonneville Power Administration
 - Lessons learned from the Pacific Northwest Smart Grid Demonstration: an Aggregator Perspective
- John Teeter, NIST
 - Modeling Transactive Energy Scenarios
- Kenneth Wacks, Home, Building & Utility Systems
 - Consumer Product Standards for Transactive Energy
- Chris Black, Tendril
 - The Transactive Energy Value Proposition: Personalizing the Customer Experience
- Steve Widergren, Pacific Northwest National Laboratory
 - Customer Engagement in AEP gridSMART® Residential Transactive System
- From Demand Response to Transactive Energy Systems: Lead – Jeff Taft; Deputy – Ron Ambrosio
 - John Dirkman, Schneider Electric
 - Optimizing Generation, Distribution, Renewables, and Demand Response for a Smarter Grid - Implementing an Advanced Transactive Energy System at Burbank Water and Power
 - Arthur Vos, ENBALA Power Networks
 - Harvesting Customer Flexibility for Real-Time Grid Operations
 - Auswin Thomas, Iowa State University
 - An Agent-Based Test Bed for the Integrated Study of Transmission-Distribution Operations
 - Antoni Mir, Abengoa
 - Control of Active Distributed Power Plants through the implementation of price-signal based real-time competitive dispatching systems
 - Farrokh Rahimi, Open Access Technology International, Inc.
 - Micro Tagging for Reliable Distribution Operation under the Transactive Energy Paradigm
- Cyber-physical, Security and Risk Management Challenges: Lead – Doug Houseman; Deputy – James Mater
 - Shawn Chandler, Portland State University
 - Practical Lessons for Transactive Control System Development
 - Mary Ann Piette, Lawrence Berkeley National Lab
 - Automated measurement and verification of transactive energy systems
 - Paul Murdock, Landis + Gyr
 - Architectural Resiliency
 - Jason Crabtree, Rationem
 - Cyber-Physical System Security for Transactive Electric Power Systems
 - Mente Konsman, TNO
 - FPAI

Panel Session

The TEC Program structure contains two parallel panel sessions each day for a total of four panel sessions. Each session is followed by a workshop. The panelists are to set up the workshop discussions. A professional facilitator will be hired to assist the session leads in the workshop portion of the panel session.

Panel Session Leadership assignments are as follows:

- Business and Policy Barriers: Lead – David Forfia; Deputy – Ward Camp
- Customer Engagement: Lead – Mark Kerbel; Deputy – Tracy Markie (Erich Gunther will stand-in for Mark Kerbel at the conference.)
- From Demand Response to Transactive Energy Systems; Lead – Jeff Taft; Deputy – Ron Ambrosio
- Cyber-physical, Security and Risk Management Challenges: Lead – Doug Houseman; Deputy – James Mater

International Panel

The TEC Program Committee continues to seek out potential speakers for the International Panel. The following arrangements have been made.

- Mark Paterson, CSIRO, Australia (confirmed)
- Koen Kok, TNO, The Netherlands (confirmed)
- Bartosz Wojsczyk, Manila Electric Company (not confirmed)
- TBD, Abengoa, Spain (not confirmed) Ron Ambrosio plans to invite Pedro Rodriguez from Abengoa to be a speaker for the TEC International Panel.

Technical and Policy

Mutual Assistance / Emergency Response

Doug Houseman, GWAC Member

Doug Housman was not online to provide an update. David Katz forwarded the Toronto Ice Storm Report to Doug Houseman and Dan Lubar to be distributed to the working group. The report discusses emergency response issues Toronto faced during the ice storm.

Transactive Energy

Ron Melton, GWAC Administrator; Mark Knight, GWAC Chairman

Council of State Governments Webinar on Transactive Energy

Tom Sloan and Mark Knight coordinated a webinar with the Council of State Governments (CSG) on transactive energy on December 3rd at 11:00 am Pacific Time, (2:00 pm Eastern Time). The presentation that was developed for the SGIP Annual meeting will be used for this webinar, along with opening remarks from Tom Sloan and Mark Knight.

TE Decision Makers Check List

Mark Knight, GWAC Chairman

A topic that came from the GWAC face-to-face meeting at Cal-ISO was the need for a transactive energy checklist that could be used by policy makers and decision makers.

Ron Melton provided background to this task by explaining that the Council created a similar document titled “GridWise Interoperability Decision Maker’s Check List”. The document can be found at GridWiseAC.org listed under ‘work products’. The TE Decision Maker’s Check List would be a document similar to the interoperability check list but would focus on the key questions and concerns that decision makers are facing in regards to an investment or regulatory concerns of the emerging technology of transactive energy systems.

The Council was in agreement to forming a working group to develop a draft of the Transactive Energy Decision Maker’s Checklist. Mark Knight will lead the group, and James Mater, Ken Wacks, Ron Ambrosio, Gordon Matthews, Dave Levee, Larry Lackey, and Mark Patterson volunteered as members. The group plans to meet prior to the Transactive Energy Conference in Portland. Mark Knight suggested the Council include Erik Desrosiers in the working group, and all agreed. Ron Melton suggested that the Council utilize the Transactive Energy Conference’s regulator panel to ask what information is needed to drive transactive energy forward.

TE Framework

Ron Melton thanked all that have provided comments and feedback on the Transactive Energy Framework. Mark Knight, Ron Melton and Mark Kerbel are actively working on the Transactive Energy Framework edits and revisions, and have developed a matrix to keep track of the comments to make sure they were all addressed. A few definitions and edits need to be completed, then the revised draft document will be distributed to the Council for review and comments. The target date to issue the update is at the end of November.

GridWise Architecture Council Interoperability Context-Setting Framework

IEEE Update

Erich Gunther, GWAC Charmian Emeritus; Doug Housman, GWAC Member

Erich Gunther reported that progress to have the GridWise Interoperability Context Setting Framework as an IEEE standard is ongoing and Erich will provide an update at our next meeting.

ISO / IEC Standard Update

Ron Ambrosio, GWAC Chairman Emeritus; Ken Wacks, GWAC Member

Mark Knight offered the GridWise Architecture Council Interoperability Context Setting Framework as an ISO/IEC technical report on August 1, 2014. Ken Wacks prepared and posted a document titled “The GridWise Interoperability Setting Framework Submitted by the GridWise Architecture Council” on the International ISO/IEC Standard distribution board. The document requests that the GWAC Context-Setting Framework be considered as an ISO / IEC Technical Report. Ken Wacks and Ron Ambrosio presented and explained the request to the ISO/IEC experts in Beijing on September 15, 2014. The Framework was received positively by the experts. The ISO/IEC Administrator asked for a review by the IEC committee developing grid interface standards, which will start in November. Feedback was received from the IEC committee stating that the GWAC Stack was not the only basis for interoperability. Mark Knight and Ken Wacks plan to respond, stating that the GWAC Stack is a foundational document, and that it is important to have this foundational document readily available as an international Technical Report. Ron Ambrosio has volunteered to write the formal response.

Liaison Reports

ISO/IEC

The ISO/IEC committee has received proposals from Electronic Technology Research Institute (ETSI) in Korea. ETSI has brought forth a proposal for energy management in apartment complexes where part of the management is done by the dweller and the other part by the complex owner and part is managed externally by an energy service provider.

Smart Grid Interoperability Panel – SGIP

Erich Gunther reported that the next SGIP Membership Meeting is adjacent to the GWAC Transactive Energy Conference in Portland on December 7-8, 2014. SGIP has a new activity to create a catalog of test programs.

CEA

Ken Wacks reported that CEA has a standards committee meeting on November 11, 2014 to address security and privacy in consumer electronics, which could impact the energy sphere. The committee is in the early stages.

AHR EXPO

Ken Wacks, along with another Council member, will be coordinating with Tracy Markie on the Transactive Energy Panel that will be at the AHR Expo in January, 2015.

TNO

Pacific Northwest National Laboratory is continuing to have interactions with TNO on their PowerMatcher work, which are very similar to activities at PNNL with load management and smart agent-based approaches.

Industrial Internet Consortium

Ron Ambrosio reported that the next Industrial Internet Consortium face to face meeting will be held December 9-10, 2014. IIC is similar to SGIP, and their goal is to coordinate with standard bodies not to develop standards but use cases, to identify requirements and to feed them into standards groups.

Ontario Hydro

David Katz reported that a smart energy network and two major gas utilities are soon to be involved.

Action Items Review

- Ron Ambrosio to formulate an official response to the ISO/IEC Committee regarding the GridWise Context Setting Framework as a foundation document that needs to be readily available as a technical report.
- Schedule first TE Decision Makers Working Group meeting.
- Transactive Energy Conference Foundation Session Slide needs to be emailed to Ron Melton by Tuesday, November, 17, 2014.
- Doug Houseman to continue work on the GWAC Mutual Assistance / Emergency Response working group – schedule second meeting.
- Doug Houseman and Eric Gunther to continue work on the effort to have the Interoperability Context Setting Framework as an IEEE technical document.
- Doug Houseman and Jason Crabtree to continue work on the Transactive Energy Cyber Security paper.
- Ron Melton, Mark Knight and Mark Kerbel to finalize revision/edits on the Transactive Energy Framework and to distribute to the Council for review.
- Ken Wacks to continue work on the GWAC Interoperability Context Setting Framework as an ISO/IEC Technical Report.
- Erich Gunther to assist Ron Melton in securing Bruno Prestat as a TEC international panelist.

Adjourn

Ron Ambrosio moved to adjourn the meeting, Jeff Taft seconded the motion and the meeting adjourned at 2:39 PM.