Meeting Minutes

December 16, 2015

Members

Ron Ambrosio, IBM T.J. Watson Research Center Ron Bernstein, Ron Bernstein Consulting Group, LLC

David Forfia, Electric Reliability Council of Texas (ERCOT) Doug Houseman, EnerNex

Mark Knight, CGI James Mater, Quality Logic

Tom Sloan, Kansas State Legislator Ken Wacks, consultant to Sensus Metering Systems Inc.

Members Not Present

Gerald Gray, Electric Power Research Institute (EPRI) Mark Kerbel, REGEN Energy Inc. Stephen Knapp, Power Analytics Corporation.

Heather Sanders, Southern California Edison Carl Zichella, Natural Resources Defense Council

GWAC Members Emeritus

Erich Gunther, EnerNex

Support – Pacific Northwest National Laboratory (PNNL)

Ron Melton, PNNL Sherry Kowalski, PNNL

Guests

Chris Villarreal, Minnesota Public Utilities Commission Bill Cox, Cox Associates Dave Katz, Sustainable Resources Management Ed Cazalet, TeMix, Inc.

Administrative

Welcome and Administrative Business

Ron Melton, GWAC Administrator

Meeting was called to order at 10: 06 a.m. Ron Melton reviewed the agenda and read the proprietary information disclosure policy according to the bylaws to the GWAC members and guests.

Calendar Review

The 2015/ 2016 Web Meeting dates have been set as follows:

- January 20, 2016 10:00 a.m. to 12:00 p.m. Pacific
- February 17, 2016 10:00 a.m. to 12:00 p.m. Pacific
- March 16, 2016 10:00 a.m. to 12:00 p.m. Pacific Ken Wacks has a conflict and asked if the meeting could be moved back a week.
- April 13, 2016 10:00 a.m. to 12:00 p.m. Pacific

GWAC Events:

 May 17 - 19, 2016: 3nd Transactive Energy Conference, World Trade Center, Portland Oregon

Call for Candidates

The GWAC call for new candidates is open. The current members under consideration are as follows:

- Ron Ambrosio
- Doug Houseman
- Mark Kerbel
- Mark Knight
- Heather Sanders
- Tom Sloan
- Ken Wacks

GWAC members whose terms are expiring need to notify the GWAC Administrator via email of their intent and if they wish to be considered to continue membership. The goal for GWAC membership is to have a 25% turnover (new members) – 2 new members in this case

GWAC By-Laws call for a five person selection committee that consists of:

- 2 continuing GWAC members
- DOE program manager
- GWAC Administrator
- Outside 3rd party (historically this has been a member from NIST)

The official Call for Membership Applications will be circulated in the next few weeks. Membership application materials are available at:

http://www.gridwiseac.org/call_for_candidates.aspx. Deadline for applications is December 31, 2015.

Technical and Policy

Grid 3.0 Architecture Workshop Recap

Objectives:

- Refine the future state and issues
- Identify ongoing work that addresses the future state and issues
- Identify gaps that is, issues that are not currently being addressed
- Prioritize the gaps
- Develop high level action plans for the prioritized gaps
- Identify the appropriate organization(s) for each action plan

Future State:

Ron Melton encouraged the Council to read the Distribution Systems in High Distributed Energy Resources Future. Sherry Kowalski is to send report link to the Council.

- DER penetration increasing
- DER to include DG, DR, EVs, etc.
- At high enough penetration levels, if the current mode of operating distribution systems no longer works, refer to <u>Distribution Systems in High Distributed Energy Resources</u> <u>Future report</u>.
- "DSO" becomes a peer to ISO as DER penetration increases

Workshop breakouts considered reference models and interoperability for:

- Business models, regulatory and legislative
- Markets controls, including transactive
- Cyber-physical

Interoperability Workshop

A series of elements on accelerating interoperability. Time was spent identifying and fleshing out elements impeding interoperability and possible solutions and some prioritization.

Infographic, higher levels of the GWAC stack

Erich Gunther has an action to provide Ron Melton access to the Grid 3.0 SharePoint. Read access is available to all.

Conference and Event Planning

Interoperability Workshop

Smart Grid Interoperability Panel (SGIP) and the Grid 3.0 Leadership Committee invited Ron Melton and Mark Knight to participate in a workshop to develop a roadmap for the interoperability work needed in support of the future electricity sector. The two-day workshop was held December 8-9 at AEP in Tulsa, Oklahoma.

This workshop was part of the Grid 3.0 work that is being supported by nine organizations – the U.S. Department of Energy (DOE), National Institute of Standards and Technology (NIST), National Electric Manufacturers Association (NEMA), Smart Grid Interoperability Panel (SGIP), GridWise[®] Architecture Council (GWAC), UCA International User's Group (UCA), the Institute of Electric and Electronic Engineers Power and Energy Society (IEEE PES), GridWise Alliance and the Electric Power Research Institute (EPRI). These organizations have joined together in an informal, ad hoc collaboration to engage stakeholders and develop a roadmap to identify the critical activities needed to achieve the resilient, flexible and highly-interactive grid of the future Grid 3.0. The motivation for collaborating on this roadmap is to promote coordination and collaboration across organizations to most efficiently perform the research and development needed to achieve Grid 3.0.

Transactive Energy Systems Conference and Workshop

Recap

- Name modified to Transactive Energy Systems Conference and Workshop or #TES2016 for the short name / hashtag name
- The theme Transactive Energy Systems: Harnessing Flexibility in an Evolving Electric Power System
- The conference has been extended to a three-day meeting keep workshop element
- Incorporating NIST TE Challenge Summit into program
- Hybrid approach to the program including Call for Papers responses as well as invited panelists
- Building on questions from OATI meeting
- Organized around 3 dimensions:
 - Regulatory / environmental / governmental
 - Benefits to influencers
 - o Utility Perspectives
 - Reliability
 - Economics and business models
 - Technology and Solutions
 - Enabling prosumers and consumer considerations
 - NIST TE Challenge Summit
- Planning to have an International Panel again

New Business

Planning continues on the Transactive Energy Systems Conference (#TES2016). The Organizing and Planning Committees have been meeting regularly. The Call for Papers is open and abstracts are due January 31, 2016. Ron Melton encouraged the Council to help to disseminate information on both the conference and Call for Papers.

Tutorial session

- Doug Houseman, Ron Bernstein and Farrokh Rahimi are interested in arranging a GWAC Tutorial.
- A suggestion was made for the Program Committee to reach out to New York regulators as possible panelists.
- Erich suggested reviving some simple animations, etc. to help explain transactive energy.

Next Steps

- Endorsements: The Council and Organizing Committee are currently seeking endorsements.
- Conference DOE Approval: Chris Irwin has an action to help obtain DOE Conference Management Approval.
- Sponsorships: Smart Grid Northwest has an action to identify and secure conference sponsorships.
- Keynote Speakers: Program Committee has an action to develop a program and identify keynote speakers.
- International Panel: Program Committee has an action to identify and secure a panelist for an international panel.
- GWAC Foundational Session: GWAC has an action to develop the foundational session.

AHR Conference

The GridWise Architecture Council AHR Expo Seminar is scheduled for January 25, 2016, from 3:00 to 5:00 pm in room S320B. The session topic is titled "Smart Buildings and Transactive Energy" and will discuss the state of the transactive energy market as it relates to smart building automations systems.

Ron Bernstein is the session moderator and speakers include Council Members Mark Kerbel and Ken Wacks. Ron Bernstein asked for an additional volunteer to complete the panel. Tracy Markie was recommended and Ron Bernstein took the action to send a speaking invitation to Tracy.

Discussion continued on possible speaking points.

Transactive Energy Decision Maker's Checklist

Ron Melton, GWAC Administrator, Mark Knight, GWAC Member

Work continues on the Transactive Energy Decision-Maker's Checklist, comments are in hand from first round of reviews and integration and resolution of those comments should have been completed by November 18, 2015. A full GWAC member review – comments were to be completed by December 4, 2015. The draft document was to then be cleared for public distribution and circulated for comments on December 11, 2015. These deadlines were missed due to conflicts. Ron Melton asked to assistance in completing the draft checklist.

Valuation of Transactive Energy Systems

Ron Melton, GWAC Administrator, Mark Knight, GWAC Member

Proceedings of workshop being drafted – should be available next week. The final valuation report is due at the end of January.

Action List

- Sherry Kowalski is to look into the possibility of moving the March GWAC meeting back one week to accommodate Ken Wacks schedule.
- GWAC members whose terms are expiring need to notify the GWAC Administrator via email of their intent and if they wish to be considered to continue membership.
- Sherry Kowalski is to send the Distribution Systems in High Distributed Energy Resources Future report link to the Council.
- Ron Melton is to provide an updated schedule for completing the Transactive Energy Decision Maker's checklist.

Adjourn

Mark Knight moved to adjourn the meeting, Doug Houseman seconded the motion and the meeting adjourned at 11:00 AM.