

Meeting Minutes

April 22, 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)
Mark Kerbel, REGEN Energy Inc.
Mark Knight, CGI
James Mater, Quality Logic
Stephen Knapp, Power Generation Services, Inc.
Ken Wacks, consultant to Sensus Metering Systems Inc.

Members Not Present

Heather Sanders, CA-ISO
Doug Houseman, EnerNex
Tom Sloan, Kansas State Legislator
Carl Zichella, Natural Resources Defense Council

Associates

Gordon Matthews, Bonneville Power Administration
Farrokh Rahimi, OATI

Member Emeritus

Robert Burke, ISO New England
Erich Gunther, EnerNex
Jeff Taft, PNNL

Support – Pacific Northwest National Laboratory (PNNL)

Sherry Kowalski, PNNL
Ron Melton, PNNL
Abhishek Somani, PNNL

Speakers and Guests

Ali Apakchi, OATI
Anto Budiardjo, PointView, Inc.
Ed Cazalet, TeMix, Inc.
Phil Davis, Schneider Electric
Chris Irwin, U.S. DOE
Larry Lackey, Coergon Group, LTD
Dave LeVee, PwrCast, Inc.
Chris Villarreal, Minnesota Public Utilities Commission

Administrative

Welcome and Administrative Business

Ron Melton, GWAC Administrator

David Forfia called the meeting to order at 10:07AM.

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

- Schedule Decision-Maker's Checklist sub-committee calls before May face-to-face workshop. Updates on all action items related to the Decision Maker's Checklist will be addressed later in the meeting.
- Finalize May face-to-face workshop agenda.
- Send May face-to-face workshop invites to external participants.
- Invite language
 - What TE is and isn't
 - What is being asked?
- Ron Melton to expand Decision Maker's Workshop description.
- Ron Melton to prioritize the invitee list.
- Council to create clear statement of expected workshop outcomes.
- Doug Houseman and Eric Gunther to continue to work on the effort to have the Interoperability Context Setting Framework as an IEEE technical document – Ongoing.
- Doug Houseman to continue leading the GWAC Mutual Assistance / Emergency Response working group – Ongoing.
- Work to continue on the GWAC Interoperability Context Setting Framework as an ISO/IEC Standard effort – update will be provided later in the meeting.

Approval of Minutes

Ron Melton, GWAC Administrator

The January 21, 2015, web meeting minutes were distributed to the Council by email for review and feedback. Ken Wacks motioned to accept the minutes as presented, Mark Knight seconded the motion and the minutes were approved.

The March 25, 2015, face-to-face meeting minutes were distributed to the Council by email for review and feedback. Corrections were received by Ken Wacks. Ken Wacks motioned to accept the minutes with corrections from Ron Bernstein and Ken Wacks. Mark Knight seconded the motion and the minutes were approved.

Calendar Review

GWAC 2015 Web Meetings:

- June 24, 2015, 10AM-12PM Pacific
- July 15, 2015, 10AM-12PM Pacific
- August 26, 2015, 10AM-12PM Pacific

GWAC Face-to-Face Meetings:

- May 12-13, 2015, OATI, Redwood City, CA (2 full-days)

Conference and Event Planning

Decision Maker's Checklist Planning

May Face-to-Face Transactive Energy Decision Makers Checklist Workshop is planned for May 12-13, 2015, and will be hosted by OATI in Redwood City, California. Hotel arrangements have been arranged with RedRoof Inn. Expected attendance is approximately 50 participants, so seats will be limited. PointView will be used to manage the conference.

Status and Actions

The subcommittee met last Friday and had another call this Friday, April 24, 2015. The agenda has been drafted and is posted on PointView. Ron Melton has expanded the meeting description and circulated to Council and subcommittee for review and input. Below are the Council's actions that need to be assigned at today's meeting:

- Action – invite the panelists
- Action – refine statement of expected workshop outcomes
- Action – assignments for background presentations

Draft Agenda

May 12, 2015

General GWAC Business

- 8:00 - 8:30 Check-in and Continental Breakfast
- 8:30 - 9:00 Administrative Items
- 9:00 - 9:45 Activity Updates
 - Emergency Coordination Working Group
 - Cyber Security Working Group
 - Outreach
- 9:45 - 10:30 3rd International Conference and Workshop on Transactive Energy Conference and Workshop

TE Decisions Maker's Checklist Workshop

- 10:30 - 12:00 Setting the stage
 - Why a decision maker's checklist ?
 - Review workshop objectives
 - Review
 - Strawman outline of checklist
 - Intended audience
- 12:00 - 1:00 Lunch
- 1:00 - 2:00 Background Presentations
 - NY REV Process Summary and Status
 - CA AB327 and "More than Smart" Discussions
 - HI Renewable Integration Summary and Status

- 2:00 - 3:30 Panel on CA AB327 DRP Activity
- 3:30 - 4:30 Discussion - What insight does CA AB327 activity provide as to information needed by decision makers?
- 4:30 - 5:00 Recap of the day

May 13, 2015

- 8:00 - 8:30 Check-in and Continental Breakfast
- 8:30 - 10:00 - "Commercial" Panel - What is needed for decision makers from vendors, technology providers, service providers?
- 10:00 - 11:00 - Discussion - insights from commercial panel discussion
- 11:00 - 12:00 - Revisit strawman outline based on panels and discussions
- 12:00 - 1:00 - Lunch
- 1:00 - 2:30 - Break into small groups to brainstorm key questions / information for the checklist
- 2:30 - 3:30 - Small groups report back
- 3:30 - 4:30 - Discussion of small group results
- 4:30 - 5:00 - Recap of meeting and next steps

Panelist Invitations

"AB 327"

For the "AB327" panel, we'd like to get the California perspective on distributed energy resource integration, potential impacts and changes to distribution utility business models, the relationship between distribution utilities and the bulk power system, and the information needed in the decision making processes for evaluating proposed changes. To the extent that there is consideration of distribution system operator or platform provider concepts, possibly including retail tariff changes to include the possibility of dynamic tariffs, which is of interest too.

Below is a list of the panel invitees and those tasked with extending the invitations.

- Manho Yeung, PG&E - Paul De Martini and Erich Gunther
- Erik Takayesu, SCE – Erich Gunther
- Will Speer, SDG&E – James Mater
- Fred Fletcher, Burbank W&P – Ali Apakchi
- Paul Lau, SMUD – Ken Wacks
- Marcie Edwards, LADWP – Ali Apakchi

Commercial

Below is a list of the panel invitees and those tasked with extending the invitations.

Invitees will be asked to discuss the challenges of bringing in new products and services into the system, especially distributed energy resources.

- Solar City: Pete Riev – Ron Melton
- Advanced Microgrids: Audrey Lee – Ron Melton

- Sunverge: Steve Wolford – Ron Melton
- EnPhase Energy: Jason Simon - Ron Melton
- Power Tree Services – Ron Melton
- Google: Sila Killicote – Ron Melton
- Sun Edison – Ali Apakchi

Workshop Outcomes Strawman

This information came from previous discussions and Ron Melton cumulated the outcomes into the following:

- Validate outline for Decision Maker’s Checklist
- Input from stakeholders on format of the checklist
- Prioritized list of key questions
- Possible case studies identified

Chris Villarreal asked about the inclusion of regulators. Chris will identify a regulator to be on the California panel.

Background Presentation Assignments

- NY REV Process Summary and Status - Doug Houseman and Ron Ambrosio
- CA AB327 and "More than Smart" Discussions - Ali Apakchi and Farrokh Rahimi
- HI Renewable Integration Summary and Status – Erich Gunther

Demand Response Town Hall Meeting

No action is needed now, but GWAC will be considered for future Town Hall meetings.

Technical and Policy

Mutual Assistance / Emergency Response

Ron Melton GWAC Administrator

No new progress to report. Recap: A GWAC working group on mutual assistance and emergency response has been created to survey the landscape to see what type of inputs GWAC might be able to provide in this industry discussion. Doug Houseman has created a charter and is currently seeking involvement from other sources. A small core team is now meeting via phone on Friday every other week, which includes Doug Houseman, Ron Ambrosio, Mark Knight, and David Forfia. Nine (9) high level use cases circulated for discussion to GWAC. The group has an initial draft of use cases – anyone is invited to review, edit, discard, update, and create on the document. Group is now working on extracting key interoperability messages.

Grid 3.0 and TE Challenges Meeting Recaps

Erich Gunter reported that the Grid 3.0 workshop was very successful. Planning has begun for the workshop and NIST is hoping to get as many return participants as possible. Erich Gunther recommended to keep updated with the group that is coordinating the NIST 3.0 activity.

Ron Melton will forward the Grid 3.0 meeting invitation out to the GWAC mailing list.

The TE Challenge meeting was also successful and there will be more information to come in the near future. The TE Challenge will be announced in July to engage universities through the coming academic year.

2016 Transactive Energy Conference Planning Kickoff

- Location – Portland, PGE facilities
- Dates – suggest we block 3 days at this point to allow for possible expanded program – May 17 – 19, 2016?
- Form organizing committee – need volunteers from Council and nominations for others outside of Council
 - The following people volunteered for the TEC Organizing Committee:
 - Ron Melton
 - James Mater
 - Ken Wacks
 - Stephen Knapp
 - David Forfia
 - Ali Apakchi
- Meeting theme: One of the first orders of business is to discuss and choose a conference theme. Ron Melton asked the Council to be thinking about a possible theme for the conference to discuss with the larger group at the May OATI meeting.

Transactive Energy

David Forfia, GWAC Chairman

GridWise Architecture Council Interoperability Context-Setting Framework

IEEE Technic Report

Erich Gunther

No progress to report.

ISO / IEC Standard Update

Ken Wacks, GWAC Member

The Framework was received positively by the ISO/IEC experts. The ISO/IEC subcommittee secretary asked for a review by IEC Technical Committee 57, Working Group 21 (IEC TC57/WG21), “Interfaces and protocol profiles relevant to systems connected to the electrical grid.” In November 2014 Ron Ambrosio sent an email to Peter Ferstl, the chair of IEC TC57/WG21, explaining that the GWAC framework document should be published as a technical report because it is widely referenced. Ron Ambrosio convinced Peter to concur that the Interoperability Context-Setting Framework is a foundational document. Ken Wacks has forwarded the request for the document to be an ISO/IEC Technical Report to the secretary.

Liaison Reports

ISO/IEC

- ITU working on web of things
 - General standards on how to connect everything
- New Korean proposal related to Internet of Things (IoT)
 - Specification for a broker function in a gateway between the Internet and homes and businesses to filter IoT commands
 - Addresses security and privacy
 - Will be considered for an international standard by the ISO/IEC working group that Ken chairs

Smart Grid Interoperability Panel - SGIP

- David Forfia is the new SGIP Board Chair and Erich Gunther is the Vice Chair. Ken Wacks is still leading Home to Grid Domain Working Group (H2G DEWG). Steve Widergren and Chris Irwin have been elected to the SGIP Board members.
- Finishing up a white paper on grid stability using one-way communications.
- Another H2G paper on economic basis for a freemarket basis for customer interaction. LBNL, NREL and Ontario are looking at micro and nano grids.
- New concept called "allonetic" appliances - from Conrad.

Air-Conditioning, Heating, Refrigerating Exposition - AHR Expo

- Mark Kerbel and Ken Wacks have volunteered for the AHR Expo
- Ron Melton to follow up with Ron Bernstein

Industrial Internet Consortium - IIC

- General Electric is hosting the June meeting at GE Research in New York
- There is a joint activity between SGIP and IIC activity to define testbeds
- Testbeds are proof of concept environments - both vertical and horizontal
- An SGIP - IIC oversight committee has been established

CEA

Ken is chairing the standards committee that developed ANSI/CEA-2045, “Modular Communications Interface for Energy Management” and has proposed this American National

Standard as an international standard (ISO/IEC). The ISO/IEC subcommittee secretary initially objected, but then supported this proposal when he learned that his company is using it for electric vehicle charging.

Action Items Review

- Erich Gunther to continue to work on the effort to have the Interoperability Context Setting Framework as an IEEE technical document
- Doug Houseman to continue work on the GWAC Mutual Assistance / Emergency Response working group
- Ron Ambrosio to continue to work on the GWAC Interoperability Context Setting Framework as an ISO/IEC Standard effort
- Invite panelist for the May Transactive Energy Decision Maker's Checklist Workshop
Assignments are as follows:
 - Manho Yeung, PG&E - Paul De Martini and Erich Gunther
 - Erik Takayesu, SCE – Erich Gunther
 - Will Speer, SDG&E – James Mater
 - Fred Fletcher, Burbank W&P – Ali Apakchi
 - Paul Lau, SMUD – Ken Wacks
 - Marcie Edwards, LADWP – Ali Apakchi
 - Solar City: Pete Riev – Ron Melton
 - Advanced Microgrids: Audrey Lee – Ron Melton
 - Sunverge: Steve Wolford – Ron Melton
 - EnPhase Energy: Jason Simon - Ron Melton
 - Power Tree Services – Ron Melton
 - Google: Sila Killicote – Ron Melton
 - Sun Edison – Ali Apakchi
- Workshop background presentation assignments are as follows:
 - NY REV Process Summary and Status - Doug Houseman and Ron Ambrosio
 - CA AB327 and "More than Smart" Discussions - Ali Alpakchi and Farrokh Rahimi
 - HI Renewable Integration Summary and Status – Erich Gunther

Adjourn

Ron Ambrosio moved to adjourn the meeting, Stephen Knapp seconded the motion and the meeting adjourned at 11:48AM.