# **Meeting Minutes**

August 20, 2014

#### Members

Ron Ambrosio, IBM T.J. Watson Research Center David Forfia, Electric Reliability Council of Texas (ERCOT) Doug Houseman, EnerNex Mark Kerbel, REGEN Energy Inc. Mark Knight, CGI James Mater, Quality Logic Tracy Markie, Engenuity Jeff Taft, PNNL Ken Wacks, consultant to Sensus Metering Systems Inc.

#### **Members Not Present**

Ward Camp, Landis + Gyr Jeff Gooding, California Edison Heather Sanders, CA-ISO Tom Sloan, Kansas State Legislator

#### Members Emeritus

Paul De Martini, Newport Consulting Erich Gunther, EnerNex, Inc.

> Support – Pacific Northwest National Laboratory (PNNL)

Sherry Kowalski, PNNL Ron Melton, PNNL

# Administrative

Welcome and Administrative Business

#### Ron Melton, GWAC Administrator

Ron Melton called the meeting to order at 10:08 AM.

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

#### Speakers and Guests

Ed Cazalet, TeMix, Inc. Larry Colton, Echelon Bill Cox, Cox Software Architects, LLC Rish Ghatikar, Lawrence Berkeley National Laboratory Mark Handy, KenJiva Energy Systems Terry Hill, PHIUS Stephen Knapp, Power Generation Services, Inc. Larry Lackey, TIBCO Software, Inc. David LeVee, Pwrcast Dan Lubar, Relay Services Jeff Morris, Washington State Legislator Terry Oliver, Bonneville Power Administration Dean Prochaska, NIST Farrokh Rahimi, OATI Tim Schoechle, International Center for Standards Research Leonard Tillman, Balch, Inc. Anat Venkateswaran, Utilities Consulting

# **GWAC Associate Update**

Associate nominations opened in July and the committee is reviewing the current submission which will be announced at the September face-to-face meeting. Ron Melton reviewed the criteria, privileges and nomination process with the Council.

Criteria

- Active participation in council activities for at least one year prior to the nomination
- Council initiatives such as working groups
- Attendance at Council meetings
- Technical or other background with skills and experience that is consistent with the purposes of the Council

#### Privileges

- Listing as an Associate Member on the Council's web site
- Allowed to cite their association with the Council
- May speak on behalf of the Council

## **Review of Action Items**

#### Ron Melton, GWAC Administrator

Ron Melton reviewed the status of the following action items from previous meetings:

- Council to find a more suitable time for future web meetings; possibly changing the time to 1:00 PM Pacific on October 15<sup>th</sup> for possible date.
- Doug Houseman will provide an update on The Interoperability Context Setting Framework at the August web meeting.
- Work will continue on the Transactive Energy Framework revision.
- CA-ISO TE Workshop: Contact Heather Sanders and add the CA Storage Roadmap to the agenda.
- Extend the Transactive Energy Call for Papers to Friday, September 5, 2014.
- Doug will draft an abstract and information for a Doodle Poll that will be distributed to the Council to see who would be interested in participating in the GWAC Mutual Assistance / Emergency Response working group.
- "Transactive Energy in 1000 Words" will be placed on the GWAC website.
- Mark Knight to send a formal request to Ken Wacks to have the GWAC stack as an ISO/IEC Standard.
- Council to forward the Transactive Energy call-for-papers to interested parties.

## **Approval of Minutes**

#### Ron Melton, GWAC Administrator

The July 23, 2014 web meeting minutes were distributed to the Council by email for review and feedback, corrections were received from Ken Wacks.

David Forfia moved to approve the set of minutes with editorial corrections, Ron Ambrosio seconded the motion and the motion passed.

## **Calendar Review**

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

GWAC 2014 Web Meetings:

October and November Dates to be determined

GWAC 2014 Face-to-Face Meetings:

- September 10-11– Hosted by California-ISO in Folsom, CA
- December 9 Portland, OR

GWAC 2014 Events:

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

The web meeting dates and times may change if the Council identifies a new time that would accommodate a greater number of Council members' schedules. Potential options are to move the call to 1:00 PM Pacific Time or perhaps move the date to Thursdays.

# **GWAC Logo**

The current GWAC logo has been in use for over ten years and administration has received a few comments over the past few months that we should look at freshening up the logo. Tracy Markie recommended a flat graphic without depth and shadowing. Houseman recommended just moving to GWAC to avoid confusion with the GridWise Alliance. Discussion continued on the confusion of GridWise Alliance and the GridWise Architecture Council and a possible name change. After discussion, it was determined that the council needs to retain the recognition of the "GridWise" name but yet we need to modernize with flat graphics.

Sherry Kowalski to contact the PNNL graphics department and obtain an estimate to modernize the GWAC logo and will set a time for James Mater, Tracy Markie, Ron Melton and Sherry Kowalski will review the logo design and rebranding.

# **Conference and Event Planning**

# GWAC Face-to-Face Meeting/Transactive Energy Workshop at California-ISO Ron Melton, GWAC Administrator

The Transactive Energy Roadmap Workshop and GWAC meeting will be held on September 10-11, 2014 at the California-ISO in Folsom, CA. The workshop will focus on the distribution side of the Transactive Energy Roadmap. Time will also be allotted to finalize assignments for GWAC led panels and presentations at the Transactive Energy Conference in December. A room block has been established at Lake Natoma Inn in Folsom, CA and reservations can be made by calling 916-351-1500 or online at <u>https://bookings.ihotelier.com/bookings.jsp?groupID=1227232&hotelID=13381</u>

Ron Melton reviewed the draft agenda.

Draft Agenda – Day 1

7:30 - 8:00 am	Arrival / Continental Breakfast	
Administrative Agenda		
8:00 – 8:15 am	CA-ISO Welcome and Opening Remarks	
	Petar Ristanovic*, VP of Technology, California ISO	
8:15 – 9:00 am	GWAC Business	
	Ron Melton, GWAC Administrator, Mark Knight, CGI & GWAC Chairman	
Conference/Event/Meeting Planning		
9:00 – 10:00 am	Transactive Conference Planning   Ron Melton, GWAC Administrator	
Transactive Energy Workshop		
Presentations		
10:00 – 11:00 am	Presentation 1 – GridWise Alliance / DOE Future Grid Summit Outcomes	
	Becky Harrison, GridWise Alliance	
11:00 – 12:00 pm	Presentation 2 - A Framework for Flexible Contracts in Wholesale Markets	
	Leigh Tesfatsion, Iowa State University	
12:00 – 1:30 pm	Presentation 3 – Cal-ISO Renewable Energy Integration – Working Lunch	
12100 1100 pm	Mark Rothleder, California ISO	
Discussions		
1:30 – 3:00 pm	Discussion 1 – How does TE fit into pending state regulatory changes?	
	Facilitating – Ward Camp, Landis + Gyr & GWAC Member	
3:00 – 4:30 pm	Discussion 2 – Managing the High Penetrations of DER	
5.00 – 4.30 pm	Facilitating – Doug Houseman, EnerNex & GWAC Member	
Review		
4:30 – 5:00 pm	Recap of the Day	
	Ron Melton, GWAC Administrator	
5:00 pm	Adjourn	
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## Draft Agenda Day 2

7:30 – 8:00 am	Arrival / Continental Breakfast	
8:00 – 8:05 am	Welcome back for Day 2	
	Ron Melton, GWAC Administrator, Mark Knight, CGI & GWAC Chairman	
Presentations		
8:05 – 9:00 am	Presentation 4 – California Storage Roadmap	
	Heather Sanders, California ISO & GWAC Member	
9:00 – 9:45 am	Presentation 5 – DSO Models	
	Farrokh Rahimi, OATI	
9:45 – 10:30 am	Presentation 6 – DSO Models	
	Lorenzo Kristov, California ISO	
Discussions		
10:30 – 12:00 pm	Discussion 3 – The Emerging Role of DSO	
	Facilitating – Farrokh Rahimi, OATI, Lorenzo Kristov, California ISO	
12:00 – 1:30 pm	Lunch	
1:30 – 2:30 pm	Discussion 4 – Control Aspects of Transactive Energy	
	Facilitating – Doug Houseman, EnerNex & GWAC Member	
2:30 – 3:30 pm	Integrated Next Steps	
	Facilitating – Ron Melton, GWAC Administrator, Mark Knight, CGI & GWAC	
	Chairman	
Review		
3:30 – 4:00 pm	Workshop Review	
	Ron Melton, GWAC Administrator, Mark Knight, CGI & GWAC Chairman	
4:00 – 4:30 pm	Action Items	
I <sup>-</sup>	Ron Melton, GWAC Administrator, Mark Knight, CGI & GWAC Chairman	
4:30 pm	Adjourn	

# **Transactive Energy Conference 2014**

Ron Melton provided a status update on the 2<sup>nd</sup> 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 half-day the day prior, on December 9, 2014.

The focus of the workshops and program have been defined and the call for papers released.

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.

The Program Committee continues to seek out keynote speakers and has confirmed participation of Elliott Mainzer from Bonneville Power Administration and David Owens from Edison Electric Institute. Potential keynote speaker Phillip Moeller had a conflict and declined the invitation. Other potential keynote speakers include FERC Commissioner Tony Clark and a DOE official arranged by Chris Irwin.

The conference's international panel includes:

- Mark Paterson from CSIRO
- Koen Kok, TNO, The Netherlands
- Bartosz Wojsczyk, Manila Electric Company (not confirmed)
- Ron Ambroiso has a lead on a speaker from Spain and is to follow-up with Ron Melton

The SGIP meeting is the two days preceding the Transactive Energy Conference; December 8-9, 2014.

Smart Gird Oregon has secured the same meeting facilitators from last year.

Ron Melton reminded the Council to help publicize the TEC call for papers via social media and word-of-mouth. Ron Melton plans to discuss the call for papers at the IEEE PES General Meeting Transactive Energy Panel Session.

Discussion continued on extending the call for papers deadline and the Council decided to extend the deadline through Friday, September 19, 2014, due to the lack of publicity.

The call for papers was discussed at IEEE PES General Meeting TE panel – Slides available upon request.

The key actions are to finalize keynote speakers and to flesh out the structure of the foundational session and plenary panels.

# **Technical and Policy**

# Mutual Assistance / Emergency Response

## Doug Houseman GWAC Member

Doug proposed a GWAC working group on this topic to survey the landscape to see what type of inputs GWAC might be able to provide in this industry discussion. Doug will draft a scope statement that will be distributed to the Council to see who would be interested in participating in the GWAC Mutual Assistance / Emergency Response working group.

**Transactive Energy** 

**Policy Paper** 

## Mark Knight, GWAC Chairman

Transactive Energy Framework Summary for Policy Makers is a three- page summary focused on the broad concepts of transactive energy. Mark Knight and James Mater led this project and final editing is complete on the "Transactive Energy in 1000 Words" paper. The paper will be posted to the GWAC website once cleared by PNNL.

The paper has been turned into an article that will be published in the September issue of the EnergyBiz magazine.

# **Function View Document**

The Council is to write a transactive energy framework follow-on paper that describes the functional view of transactive energy. This paper would take a different look to make it more easily understood for utility executives.

The challenge is to be as neutral as possible relative to specific implementation approaches, yet convey a functional understanding of transactive systems, which is a difficult task. Ron Melton recommended that the Council can build upon the transactive control infographic work that PNNL has started.

Ron Ambrosio, Ken Wacks, Terry Oliver, Steven Knapp and Farrokh Rahimi volunteered to work on this project. Ron is to see is if Jack Eisenhauer is available to assist with this work.

## Cyber Security / TE Paper Update

## Doug Houseman GWAC Member

Jason Crabtree and Doug Houseman have been working together on the security paper. Jason is responsible for producing the first draft of the outline.

GridWise Architecture Council Interoperability Context-Setting Framework

**IEEE Update** 

Erich Gunther is to send Doug Houseman the last email on this effort to follow up on the IEEE update.

## ISO / IEC Standard Update

## Mark Knight, GWAC Chairman

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 standard. Ken will have additional information after the September 15-18 Beijing, China ISO/IEC Meeting.

# **Liaison Reports**

# **ISO/IEC**

A new work item proposal for ISO/IEC 18012 on Lexicon and event coding interoperability was approved. The new work item had to be approved by a majority of countries and also have five countries agree to provide experts to work on it. There is now cooperation with the consumer electronics industry.

# **EPRI**

Erich Gunther reported that Don Von Dollen at EPRI is leading a group to try to rearticulate what needs to move forward in grid modernization related to interoperability and what should be addressed during the next five years.

# IEEE

There was a four-hour panel session on transactive energy at the IEEE Power and Energy Society general meeting. The session was well received and stimulated several discussions following the panel session, much of which focused on the distributed systems operators DSO.

Farrokh Rahimi reported that IEEE is working on future transactive energy panels and that the IEEE Smart Grid Roadmap should be available in late September or early October.

# Smart Grid Interoperability Panel - SGIP

SGIP announced that Patrick Gannon is leaving SGIP and John McDonald will be serving in the role while SGIP seeks out a successor.

The SGIP Technical Committee reviewed the charter for the transactive energy coordinating group. Steve Widergren is currently working on the document which will be reviewed and most likely finalized in Nashville at the SGIP annual conference.

David Forfia reported the SGIP Home to Grid (H2G) has completed a white paper called "Barriers to Responsive Appliances at Scale" that addressed interfaces to demand response and related grid interfaces. This paper began two years ago based on discussions started by General Electric.

The paper underwent a formal review process similar to an international standards effort. The paper has now been accepted by the H2G members with no opposition.

Ken Wacks reported that there has been work on the catalog of standards, which includes changes in affiliations.

The Smart Grid Architecture Model (SGAM) work has been done in the Smart Grid Architecture Council (SGAC) and it was recommended that GWAC review the work. Much of the model is based on GWAC efforts and there might be an opportunity for the GWAC to contribute. An online version of the SGAM can be found at the following link:

http://ec.europa.eu/energy/gas\_electricity/smartgrids/doc/xpert\_group1\_reference\_architectu re.pdf

# DOE / BTO

Mark Kerbel reported that there was recently a meeting to solicit comments on how to come up with framework for evaluation of building equipment as the equipment relates to energy usage and interaction. Ken Wacks is involved in an ASHRAE committee working on some similar activities.

# PLMA

PLMA conference is planned in Philadelphia on November 4, 2014.

## AHR

Tracy Markie will facilitate a session at the AHR show in January on transactive energy as it applies to buildings. Tracy is seeking four to six panelists to participate in the session and those interested were instructed to contact Tracy directly.

# **Action Items Review**

- Council to find a more suitable time for future web meetings; possibly changing the time to 1:00 PM Pacific
- Doug Houseman will provide an update on The Interoperability Context Setting Framework at the September web meeting.
- Work will continue on the Transactive Energy Framework revision.
- Doug will draft a draft summary and information for a Doodle Poll that will be distributed to the Council to see who would be interested in participating in the GWAC Mutual Assistance / Emergency Response working group.
- "Transactive Energy in 1000 Words" will be placed on the GWAC website once cleared by PNNL.
- Ken Wacks to update the Council on the GWAC stack as an ISO/IEC Standard effort.
- Transactive Energy Conference announcing keynote speakers and call for papers extension to September 19, 2014 to be drafted and distributed.

# Adjourn

Doug Houseman moved to adjourn the meeting, Mark Knight seconded the motion and the meeting adjourned at 11:51 AM.