

**Meeting Minutes**  
**August 27-28, 2013**  
**Washington, D.C.**

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***Members***

Ron Ambrosio, IBM T.J. Watson Research Center  
Ward Camp, Landis + Gyr  
Paul De Martini, Newport Consulting Group  
David Forfia, Electric Reliability Council of Texas  
Jeff Gooding, Southern California Edison  
Erich Gunther, EnerNex Corporation  
Mark Knight, CGI  
Alex Levinson, Lockheed Martin  
James Mater, QualityLogic  
Tracy Markie, Engenuity, Small Box Energy  
Tom Sloan, Kansas State Legislator  
Jeff Taft, Cisco  
Ken Wacks, consultant to Sensus Metering Systems Inc.

***Associates***

Doug Houseman, EnerNex

***Support – Pacific Northwest  
National Laboratory (PNNL)***

George Hernandez, PNNL  
Sherry Kowalski, PNNL  
Ron Melton, GWAC Administrator  
Andrew Nicholls, PNNL  
Rob Pratt, PNNL  
Andrew Steckley, PNNL  
Abhishek Somani, PNNL

***Speakers and Guests***

Eric Ackerman, Edison Electric Institute  
David Anderson, U.S. Department of Energy

Paul Boyton, National Institute of Standards and Technology  
Victoria Calderon, Edison Electric Institute  
Aryeh Fishman, Edison Electric Institute  
Joe Hagerman, U.S. Department of Energy  
Christine Hertzog, Smart Grid Library  
Joanne Hopkins, Edison Electric Institute  
Susan Hoyler, Smart Grid Interoperability Panel  
Chris Irwin, U.S. Department of Energy  
Anuj Kapadia, Baltimore Gas and Electric  
Hank Kenchington, U.S. Department of Energy  
Larry Lackey  
Kevin Lynn, U.S. Department of Energy  
Eric Lightner, U.S. Department of Energy  
Austin Montgomery, Software Engineering Institute - Carnegie Mellon University  
Ian Mundell, PJM  
Terry Oliver, Bonneville Power Administration  
David Owens, Edison Electric Institute  
Dean Prochaska, National Institute of Standards and Technology (NIST)  
Matthew Theall, U.S. Department of Energy  
Leonard Tillman, Balch & Bingham, LLP  
Matt Wakefield, Electric Power Research Institute  
Jen Wen, Drexel University  
Dave Wollman, NIST

***Members – not present***

***Members Emeritus***

Dave Hardin, EnerNoc

## Day 1

### Proprietary Information Notice

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

### EEI Welcome and Introductions

*Ron Melton, GWAC Administrator, Mark Knight, GWAC Chairman, Aryeh Fishman, Edison Electric Institute*

Mark Knight called the meeting to order at 8:23 am. Mark reviewed the agenda, discussed the changes in format, and asked for any additions.

Aryeh Fishman welcomed the Council and guests to Edison Electric Institute and introductions were made.

Minutes from the web meeting that was held on July 17, 2013, were presented to the council via e-mail. Erich Gunther motioned to accept the minutes as presented, Ron Ambrosio seconded the motion and the minutes were approved.

Ron Melton reviewed the calendar for the GWAC meetings and asked the Council for date and venue suggestions for face-to face meetings

#### Meetings:

- **September 18:** Web Meeting
- **November 13:** Web Meeting
- **December (Week of the 9-13):** Face-to-Face meeting at Westminster, CA -

### Welcome and Administrative Business

Ron Melton reviewed the action items with the council.

- GWAC Event and Meeting Planning
  - Paul De Martini to look into coordinating a GWAC face-to-face meeting in southern California at the Resnick Research Center. Paul to report back to Council in 3 days.
- Ron Melton and Mark Knight to continue work on the formal agreement between SGIP and GWAC.
- Actions from Joe Hagerman's recommendations:
  - Create FAQ section on GWAC website
  - Identify transactive case studies
  - Council to participate in DOE workshops

- Ron Melton and Andrew Nicholls to coordinate on possible EERE family of reports/authors
- Look into possible Voltron briefing for GWAC
- GWAC deliverable to create a 25 page final document on Transactive Energy to be socialized at GridWeek 2013 October 28-29.

## Call for Candidates

### *Ron Melton, GWAC Administrator*

Ron Melton reviewed the schedule and process for the 2014 GWAC call for candidates. The GWAC by-laws call for a minimum of 20% turnover. The selection committee consists of the GWAC administrator, a representative from the Department of Energy, two GWAC members and a representative from outside the Council. Jerry FitzPatrick from NIST and Chris Irwin from the DOE volunteered to be on the selection committee.

Proposed schedule as is follows:

- **Poll members for expiring terms:** Now
- **Open call for candidates:** 11/1/2013
- **Application period closes:** 12/15/2013
- **Nomination selection period:** 12/15/2013 – 12/31/2013
- **Slate Selected:** 1/2/2014 – 1/18/2014
- **Slate submitted for confirmation at GWAC January web meeting**

Ron Melton and the GWAC coordinator will develop the set of desired attributes for potential candidates after polling those with expiring memberships on their intent, and develop the materials needed for the open call for candidates scheduled for November 1, 2013.

## Moeller Summit Recap

### *Erich Gunther, GWAC Member*

Erich Gunther Reported that FERC Commissioner Phil Moeller was at the August 5, 2013 summit with Kansas Electric Company executives, SPP executives and regional regulators. Among the many topics that were discussed, Erich Gunter presented on transactive energy. Erich noted that the SPP attendees were particularly interested in the discussion of transactive energy and he felt that there were good follow-up opportunities.

## GridWeek 2013 Status Update

### *Ron Melton, GWAC Administrator*

The Council had planned on a panel session at GridWeek 2013 but the conference has been cancelled. GridWeek will be hosting and curating a continuous communication channel in partnership with SmartGrid News with the intent to re-purpose sessions as webinars.

Marty Rosenberg, from EnergyBiz magazine, offered to host a transactive energy webinar as follow-on to the May Transactive Energy Conference and this could be used to roll out the Transactive Energy Framework. There is also editorial space available in BizWeeks's November issue. The Council would need to write a 1,000 word article in 3-4 weeks. Paul De Martini and Tom Sloan recommended that we take advantage of any communication opportunities such as Mary Rosenberg's offer.

## **Peak Load Management Alliance (PLMA) Fall Conference**

***Ron Melton, GWAC Administrator***

James Mater is to attend on behalf for the GridWise Architecture Council to discuss the work the Council has doing on Transactive Energy.

## **Smart Grid Interoperability Panel (SGIP) Meeting**

***Ron Melton, GWAC Administrator***

The Smart Grid Interoperability Panel (SGIP) will be holding their augural meeting on November 5-7, 2013 in Palm Beach Florida. Steve Widergren is the session organizer of a panel session on "Creating a Transactive Energy Framework" that will be held at 11:45 am-12:45 pm on the second day of the conference. Ron Melton volunteered to assist with session organization.

Ron Melton suggested that the Council should use this opportunity to launch the Transactive Energy Framework and to further solicit participants for the upcoming December Transactive Energy workshop.

Ron Melton, Ward Campo, Ken Wacks and James Mater plan to attend the SGIP Meeting.

## **December GWAC Face-to-Face Meeting**

Ron Melton, GWAC Administrator

Jeff Gooding has a venue reserved for us in Westminster, CA near the Tech Lab for Tuesday December 10, and Wednesday December 11. Southern California Edison is looking into possibly hosting the entire workshop. Sherry Kowalski is to setup a planning meeting with Marilyn Keller from SCE to arrange the meeting logistics.

Ron Melton reviewed the December GWAC Face-to-Face meeting proposed agenda. The workshop will be two full days and include 10-12 half-hour presentations that will be followed by a fifteen minute discussion period. The presentation will be real-life examples of transactive or use cases. After all the presentations have been completed, there will be time to discuss the presentations, outcomes and the path forward for transactive energy.

A reception will be planned on the first day immediately following the workshop. A closed Council meeting will be held for four hours on the third day.

## 2014 Transactive Energy Conference

**Ron Melton, GWAC Administrator**

James Mater announced that Smart Grid Oregon is excited about hosting the 2nd GWAC Transactive Energy Conference. The next step is to create the program committee with Ron Melton as the Chair. There was strong interest from the Offices of Energy Efficiency and Renewable Energy to get the community engaged in the future and the natural progression. A good use of funds would be to have a more traditional conference with solicited abstracts and tracts. A suggest target for the conference would be two hundred participants.

Planning activity volunteers included: Chris Irwin, Terry Oliver, Erich Gunther, Ron Ambrosio, James Mater, a Portland General Electric participant, an EERE participant and Ron Melton as Chair.

## India Smart Grid Forum

**Ron Melton, GWAC Administrator**

India Smart Grid Forum has asked that GWAC present a webinar on the GWAC Stack and the Interoperability Context. Ron Melton asked for a Council member to volunteer to present. The webinar will be sometime in September (Tuesday and Thursday) and noted the time difference is 9.5 hours from east coast. There were no volunteers, so a Pacific Northwest National Lab staff member will do the first presentation in a series of four and seek out Council members for future webinars.

## Report on Demand Control and Renewables in the Home and Small Buildings

**Doug Houseman, GWAC Associate**

Doug Houseman presented on the new demand control and renewables in the home and small buildings. Doug Houseman talked about the IEEE Global initiative on DC@Home, the use of DC directly in the home.

## Lunch Presentation - The Importance of the Grid

**David Owens, EEI.**

David Owens, the Executive Vice President of Business Operations at Edison Electric Institute presented on distributed energy resource options and the importance of the electric power grid.

## Transactive Energy Workshop

### The Relevance of Transactive Energy in Today's World

**Paul De Martini, GWAC Member**

Paul De Martini presented on changing customer expectations, changing grid needs, why transactive energy is needed today and how transactive energy can work at scale.

[http://www.gridwiseac.org/pdfs/gwac\\_te\\_relevance\\_deck\\_082713.pdf](http://www.gridwiseac.org/pdfs/gwac_te_relevance_deck_082713.pdf)

## **Transactive Energy Framework Draft Review**

***Ron Melton, GWAC Administrator, Andrew Steckley PNNL***

Ron Melton and Andrew Steckley updated the Council and workshop participants on the current status of the GWAC Transactive Energy Framework draft document. The chapter level outline has been established and storyboards for major chapter/sessions have been prepared. Initial draft of several chapters/sessions has been started. The overall goal is to produce the intermediate draft by September 30, and a final draft is due on October 30, 2013.

Storyboard outlines for chapters 1-4 were reviewed and discussed for completeness and consistency.

## **Transactive Energy Key Diagrams and Graphics**

***Paul De Martini, GWAC Member, Jeff Taft, GWAC***

Paul De Martini and Jeff Taft displayed the key diagrams and graphics on Transactive Energy such as the NIST Domain Model diagram, the GWAC Stack, the Make/Move/Use diagram, Value Chain Diagram and more. Discussion continued on the diagrams and possible revisions. Work will continue on the diagrams in conjunction with the GWAC Transactive Energy Framework draft work.

[http://www.gridwiseac.org/ppt/te\\_graphics\\_session.pptx](http://www.gridwiseac.org/ppt/te_graphics_session.pptx)

## **Recap and Day Two Objectives**

***Ron Melton, GWAC Administrator, Andrew Steckley PNNL***

Ron Melton recapped the day's discussion and instructed the workshop participants to return for day two and immediately report to their assigned breakout session.

## **Adjourn**

Mark Knight adjourned the meeting for the day at 5:15 pm

## Day 2

### Proprietary Information Notice

Meeting resumed at 8:30 am. Ron Melton read the proprietary information disclosure policy according to the bylaws to the members and guests.

### Welcome and Recap of Day 2 Objectives and Breakout Sessions

**Mark Knight, GWAC Administrator, Ron Melton, GWAC Administrator**

Workshop participants recapped the results from the previous day's discussions.

- Breakout group 1 was led by Ron Melton and their task was to review and discuss chapters 1 and 3
- Breakout group 2 was led by Abhishek Somani and their task was to review and Discuss chapters 4.1 and 4.2
- Breakout group 3 was led by Andrew Steckley and their task was to review and discuss chapters 4.3 & 4.4

Group leaders captured their group's discussion and created a presentation and notes to be used to complete the storyboards that will be used collectively to draft the GWAC transactive energy framework. Following the breakout session, the meeting participants gathered and integrated their results which were captured and uploaded to the GWAC Transactive Energy SharePoint site.

### Lunch Presentation – The Green Button Initiative

**Matthew Theall – Presidential Innovation Fellow, DOE**

Matthew Theall, Presidential Innovation Fellow from the Department of Energy, presented on the Green Button Initiative and how making basic data available to consumers is extremely valuable.

### BTO Update on Technical Opportunities Report and Case Studies

**Andrew Nicholls, PNNL & George Hernandez, PNNL**

Andrew Nicholls and George Hernandez presented on the BTO Grid Integration Portfolio, Buildings-to-Grid Technical Opportunities Report and embedded advance roof-top units controls. Presentation can be found at the following link:

[http://www.gridwiseac.org/ppt/bto\\_update\\_on\\_tor\\_2013-08-28.pptx](http://www.gridwiseac.org/ppt/bto_update_on_tor_2013-08-28.pptx)

### SunShot Initiative and EERE Integration Initiative

**Steve Lindenberg, DOE**

Steve Lindenberg presented on the DOE SunShot Initiative, which is a national collaborative effort to produce solar energy that can compete economically with other forms of electricity.

## DOE Update

*Chris Irwin, DOE*

Chris Irwin discussed current challenges of the grid and the U.S. Departments of Energy's perspective on Transactive Energy.

## NIST Update

*Dave Wollman, NIST*

Dave Wollman provided organizational update and announced Chris Greer is transitioning to Director, Smart Grid and Cyber-Physical Program. Other discussion included the status of the draft NIST Framework Release 3.0 and cyber-physical systems frameworks and architectures.

## Smart Grid Messaging

*Ron Melton, GWAC Administrator*

The Council discussed messaging the benefits of the smart grid, the safety benefits of interoperability, resiliency and reliability.

## Action Items

*Ron Melton, GWAC Administrator*

- GWAC Event and Meeting Planning
  - Erich Gunther, Mark Knight and Ron Melton to coordinate GWAC face-to-face meeting with GridWeek 2013 planning committee.
  - Paul De Martini to look into coordinating a GWAC face-to-face meeting in southern California at the Resnick Research Center. Paul to report back to Council in 3 days.
  - Sherry Kowalski to add all meeting dates to calendar.
- Ron Melton and Mark Knight to continue work on the formal agreement between SGIP and GWAC.
- Actions from Joe Hagerman's recommendations:
  - Create FAQ section on GWAC website
  - Identify transactive case studies
  - Council to participate in DOE workshops
  - Ron Melton and Andrew Nicholls to coordinate on possible EERE family of reports/authors
  - Look into possible Voltron briefing for GWAC



- James Mater to forward Media Planet contact information to Ron Melton for review and comment.
- GWAC deliverable to create a 25 page final document on Transactive Energy to be socialized at GridWeek 2013 October 28-29.
  - Mark Knight is responsible for incorporating the outline scope changes
    - Add section 0
    - Add storyboard for future press release

## **Adjourn**

Erich Gunther moved to adjourn the meeting/workshop, Jeff Gooding seconded the motion and the meeting/workshop adjourned the meeting at 3:50 pm