

**Meeting Minutes**  
**November 11, 2015**  
**New Orleans, LA**

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***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  
Ken Wacks, consultant to Sensus Metering Systems Inc.  
Carl Zichella, Natural Resources Defense Council

***GWAC Associates***

Gordon Matthews, Bonneville Power Administration  
Farrokh Rahimi, OATI

***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  
Tom Sloan, Kansas State Legislator

***GWAC Members Emeritus***

Erich Gunther, EnerNex

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

Ron Melton, PNNL  
Abhishek Somani, PNNL  
Steve Widergren, PNNL

***Guests***

John Gillerman, SGIP  
Stan Schneider - RTI  
Jerry Casarella, PSG&E  
Nick Wagner, SGIP  
George Hernandez, PNNL  
Joe Hagerman, DOE  
Chris Irwin, DOE  
Dave Wollman, NIST  
Jim Waite  
Larry Stephens,  
Randy Turner, Duke Energy  
Anto Budiardjo, PointView

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**Administrative**

**Welcome and Administrative Business**  
***Ron Melton, GWAC Administrator***

Meeting was called to order at 12:30 pm. Ron Melton reviewed the agenda and read the proprietary information disclosure policy according to the bylaws to the GWAC members and guests.

### **Approval of GWAC Minutes**

The July 15, 2015, and August 20, 2015 web meeting minutes were distributed to the Council by email for review and feedback. Corrections were received by Ken Wacks and Mark Knight. Doug Houseman motioned to accept the minutes with corrections from Ken Wacks and Mark Knight. Ken Wacks seconded the motion and the minutes were approved.

### **Calendar Review**

The 2015 / 2016 Web Meetings dates have been set and are as follows:

- December 16, 2015 – 10:00 a.m. to 12:00 p.m. Pacific
- 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
- April 13, 2016 - 10:00 a.m. to 12:00 p.m. Pacific

### **GWAC Events:**

- May 17 - 19, 2016: 3rd 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 next few weeks, membership application materials are available at: [http://www.gridwiseac.org/call\\_for\\_candidates.aspx](http://www.gridwiseac.org/call_for_candidates.aspx). Deadline for applications is December 31, 2015.

## Technical and Policy

### 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 the first round of reviews; integration and resolution of those comments should be complete by November 18, 2015. Regarding the full GWAC member review – comments will be due by December 4, 2015. The draft document will then be cleared for public distribution and circulated for comments on December 11, 2015.

Organizations to include when draft for review is circulated include:

NASUCA

NASEO

APPA

NRECA

EI

AEIC (Association of Edison Illuminating Companies)

CIGRE (coordinate with John McDonald)

ENA - Australia

Circulate to Nick Wagner and Chris Villarreal along with GWAC members

### Valuation of Transactive Energy Systems

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

Ron Melton thanked ERCOT for hosting the workshop and all those who attended workshop in Taylor, Texas. Proceedings of workshop being drafted – should be available next week by February 1, 2016. Discussions continue with valuation domain experts focusing on the lack of common approach and point of coordination of these activities validated. The final valuation report is due at the end of January.

Joe Hagerman mentioned the importance of the work, the potential for impact more broadly in DOE, and that he sees a need for this to be an ongoing effort under GMLC.

There will be a third workshop per Chris Irwin. The Council will be seeking additional participants Transactive Energy Decision Maker's Checklist.

Discussion continues on capacity factors more generally.

Organization of Risk Officers - Association of Chief Risk Officers - formed after ENRON.  
Gordon mentioned a recent Utility Dive article on dropping grid utilization factors.

### **Transactive Energy Retail – Wholesale Market Interfaces**

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

We had planned to have a panel on this topic but ended up with only one of the intended panelists able to attend the meeting. We proceeded with general comments by Nick Wagner (the sole remaining panelist) with open questions and discussion. Included below are a few key points from the discussion.

Nick's starting point:

- Wholesale markets may be the only way this works [transactive energy].
- Considering from a system wide viewpoint - easier to affect change at wholesale level

Distribution system - how much done by the utility vs. via engaged consumers?

- Transmission vs. Distribution rather than wholesale - retail market interfaces?

The relationship people have with their electric utility is similar to the relationship people have with their gas station.

Cable companies, etc - the people already "inside" have the advantage and are the place to get this to go.

Does new construction provide an opportunity - utilities can define the "ultimate" interconnection and see it realized with new construction? Not a role in this for a PUC - more of a legislative role.

Distribution system of today isn't designed for much of what people want it to do.

Reliability is a driver for many industrial companies - not power costs.

FERCs report to congress on smart meters and DR is an important reference point.

~80% of residential is "on call" program in Florida. JD Powers finds this is the "most-liked" DR program in the US. This could be transitioned to TE.

In the UK in the last 3 days they have been pulling out the stops on efficiency to meet their demand. It isn't even middle of winter yet. Not enough wind last three days. In the US we will

have lower reserve margin with the pending shutdown of coal and nuclear plants. EIA has statistics on planned shutdowns. MISO has done a study on planned shutdowns and reserves. ERCOT just did one too. Available on ERCOT website.

Carl Zichella has seen two studies recently on penetration of renewables. Recent WECC study. Renewables can provide a path forward with changing resource mix.

Most power is purchased bi-laterally. Small percentage is dynamic in balancing or spot markets. In distribution system - customers don't feel the pain for what happens in the grid overall.

Nick Wagner thinks that in the deregulated markets followed by others we will begin to see a value on capacity, ancillary services, etc. - the central power system elements - that continue to be needed even with high penetrations of DER. This is related to recognizing value relationships when and where they are needed / realized. This is a place where transactive comes into play.

## Conference and Event Planning

### Transactive Energy Systems Conference and Workshop

#### Updates

- Name modified to Transactive Energy Systems Conference and Workshop or #TES2016 for the short name / hashtag name.
- Organizing and Program Committees have been meeting regularly
- 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
  - 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

## Tutorial session

- Doug Houseman, Ron Bernstein and Farrokh Rahimi are interested.
- Reach out to NY regulator
- Erich suggests reviving some simple animations, etc. to help explain.

## Call for Papers

Call for papers is open; additional information can be found at <http://events.gridwiseac.org/2016/tec/#cfp>

- Abstracts due date: January 31, 2016
- System is ready to accept uploads today

## Next Steps:

- Endorsements
  - IEEE – Melton and Gunther action
  - Others?
- DOE Conference Management approval – Irwin action
- Sponsorship – Smart Grid NW action
- Keynote speakers – Organizing and Program committees action
- International Panel – Program committee action
- GWAC Foundational session – GWAC action

## Interoperability Maturity Model

June SGIP strategy meeting

Difficult to measure impact of advances in interoperability - makes it difficult for corporate members to justify their participation without this. Interest in metrics led Chris to think of the IMM as a possible useful tool. Is there an opportunity for the IMM work to continue in SGIP or in collaboration with SGIP to bring in a measurement aspect?

Joe Hagerman - GMLC has a stated effort in metrics that could include interoperability.

To coordinate with SGIP need a workplace and coordination plan.

SGIP work plan and budget will be approved at December meeting. For SGIP side - Chris doesn't want to add unfunded activities. Suggestion is that SGIP identify a contingency work plan.

PNNL is doing a couple of maturity models for BTO - need to make them more accessible. Make sure that the products are accessible to the user groups that we want to be involved. Accessible in the sense of being understandable, etc. EERE is very interested in transactive concepts if they can scale.

## Emergency Responders Planning

No calls recently.

Doug Houseman has been discussing use cases with staff at various utilities and has received good input and positive feedback from this process. Conference calls will resume after the first of the year.

Ken Wacks received an offer from Integral Analytics to make a presentation on distributed marginal pricing. Need to follow up with Ken.

Need to schedule OpenFMB presentation for GWAC.

### **Adjourn**

Mark Knight moved to adjourn the meeting, Doug Houseman seconded the motion and the meeting adjourned at 3:40 p.m.