

## Meeting Minutes

### January 18, 2017

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#### ***GWAC Council Members***

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David Forfia, Director, Enterprise Architecture  
at the Electric Reliability Council of Texas

Ron Ambrosio, IBM Distinguished Engineer and  
Chief Technology Officer for IBM's Smarter  
Energy Research

Ron Bernstein, President, RBCG, LLC

Gerald Gray, Tech Exec, EPRI

Stephen Knapp, Exec. Director, Power Analytics  
Corp.

Mark Knight, Chief Eng., PNNL

James Mater, Co-Founder & Director,  
QualityLogic Inc.

Farrrokh Rahimi, Senior Vice President, Open  
Access Technology International Inc.

Tom Sloan, State Representative, State of  
Kansas

Carl Zichella, Director, Western Transmission for  
NRDC

#### ***Members Not Present***

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Paul De Martini, Managing Director, Newport  
Consulting Group, LLC

Doug Houseman, Vice President of Technical  
Innovation at EnerNex, LLC.

Heather Sanders, Prin. Mgr., So Calf. Edison

#### ***GWAC Emeritus***

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Ken Wacks, Sensus Metering Systems

#### ***GWAC Associates***

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Gordon Matthews, Technology Innovation,  
Bonneville Power Administration

Chris Villarreal, Dir. Policy, MN Public Utilities  
Commission

#### ***US DOE***

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Chris Irwin, DOE OE

#### ***PNNL Support***

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Ron Melton, GWAC Administrator  
Susie McGuire, GWAC Coordinator

#### ***Guests***

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Tanya Barham  
Bruce Beihoff  
Ed Cazalet  
David Katz  
Larry Lackey  
Dave Le  
Dave LeVee  
Andrew Nicholls  
Tim Shafley  
Leonard Tillman  
David Wollman

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#### *Administrative*

At 10:04am PST the GWAC online meeting was called to order by Chair David Forfia with a quorum of 8. Ron welcomed everyone and reviewed the agenda and asked first time attendees to send their contact information to the GWAC Coordinator (email).

Proprietary information notice read by Ron Melton

The December minutes were sent to the council and put forward for approval. No edits put forth, Chair David Forfia asked for a motion to approve the minutes. Stephen Knapp, motioned for approval of the minutes and Carl Zichella seconded the motion. The December minutes were approved at 10:09am PST.

Farrokh Rahimi asked Ron Melton to send the ENA report and CSIRO reports to the council.

#### *Upcoming meetings:*

AHR Expo Jan. 30 – Feb. 1, in Las Vegas

DistribuTech Jan. 31 – Feb. 2, Washington DC

GWAC Face to Face Feb. 6 – 7, in San Diego

TES Conference June 13 – 15, Portland

Ron reminded everyone about the GWAC F2F meeting in San Diego including the hotel rate available for attendees which can be found in the meeting appointment and on the PointView site.

Attendees who want to sail can join the group on Sunday afternoon, if there is enough interest, they would meet at the San Diego Harbor Marina at about 1:00pm, hosted by Ron Bernstein. A no-host dinner will follow nearby. It is Super Bowl Sunday. Some people expressed interest.

Ron reviewed the planned agenda for the GWAC F2F in San Diego with participation from contacts from San Diego Cleantech. He noted that there will be a Smart Cities Panel which is anticipated to also be a plenary panel at the annual TES 17 in Portland, OR in June. Also, two hours will be set aside for the GMLC Interoperability project as an extended team meeting layered into the GWAC meeting. Several GWAC participants are part of this project which involves four national labs and industry partners. There may be some who attend this meeting who do not usually attend GWAC meetings and they will be invited to stay for the full meeting.

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David Katz expressed interest in this as Canada is active in a Smart Cities effort including smart buildings. He is familiar with some San Diego lighting experts and is very interested and engaged in this topic. He has met with contacts from New York and Boston. Ron Melton encouraged David to submit an abstract to TES 17.

Farrokh gave a quick overview of the ISGT meeting. There will be two panels on TE that Ron Melton helped to organize. There will be other panels at the three day meeting. Seven tutorials are planned. The conference is intended to emphasize the practical implementation of Smart Grid Technologies. Ron Melton noted that in 2016 many involved with policy making attended this meeting. Doug Houseman has a tutorial planned and one will be on Grid Architecture and will be presented by Jeff Taft, David Hardin and Ron Melton.

### ***Membership Activities:***

Ron Melton noted that the GWAC new member selection committee has met and this will be discussed in today's meeting.

Ron Melton noted that GWAC membership is to turn over 20% per year. Members who will remain on for another term are

Ron Melton explained the new member selection process. The selection committee consists of the GWAC administrator, the DOE program manager, two GWAC members not up for renewal, one outside observer not a GWAC member. So this year's committee consisted of Ron Melton, Chris Irwin, Farrokh Rahimi, Paul DeMartini, and David Wollman.

Five council members have expressed a desire to remain on for another term. Those remaining on for another term are Ron Bernstein, David Forfia, Gerald Gray, Stephen Knapp, and James Mater.

GWAC received six applications this year. There were two spots to fill for departing members Carl Zichella and Mark Knight. Carl Zichella is not able to continue on with GWAC due to other commitments. Mark will participate in the future as part of the PNNL Support team. Ron thanked Carl and Mark for their work in support of GWAC. Ron also invited Carl to stay engaged as much as he can as an emeritus. Carl noted that he has urged one of his colleagues to begin participating with GWAC and also noted his appreciation of the group.

Ron presented the slate of new member candidates with a brief introduction for nominees Tanya Barham and Lorenzo Kristov.

Chris Irwin said the council is looking to expand with a wide range of representation and that there were a number of good candidates presented to this selection committee.

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David Forfia noted the capacity for leadership of these two new candidates is strong and has his full support.

Ron Melton presented the Slate for Confirmation to the council. He noted that it would be voted on as a whole, not as individuals. Ron then called each council person by name for their vote.

Yes Votes: David Forfia, Ron Ambrosio, Ron Bernstein, Gerald Gray, Stephen Knapp, Mark Knight, James mater, Farrokh Rahimi, Tom Sloan, Carl Zichella, Chris Irwin.

No Votes: None

Ron Melton acknowledged the slate was approved at 10:20am and he welcomed Tanya Barham since she was on the call. Ron stated that he hopes to see the new members at the F2F in San Diego for an in-person welcome.

Ron also noted that David Forfia has been confirmed by the Selection Committee as the new GWAC Chairman.

### ***Other Business:***

Ken Wacks asked if GWAC has a role in the GMLC projects. Ron Melton answered that GWAC does not receive money directly from GMLC projects but with Interoperability there is some cross association in Outreach efforts. The IMM connection is being led by Mark Knight and he will lead a discussion on this at the meeting. GWAC is a partner organization. We have had one partner workshop in Sept. 16 in Chicago and the discussions at the GWAC F2F will continue this effort. The way to engage GWAC further will be part of the discussion at the F2F.

A Strategic Vision document is being drafted and it will be circulated to the GWAC council. Steve Widergren is leading this work, he leads the Interoperability project for the GMLC (PNNL is the lead lab for the GMLC Interoperability project).

Mark Knight presented a status of the TES 17. The theme has a two year horizon on “what will make TE systems real? This will coordinate with TE road mapping.

TES 17 will be in a conference format with a workshop format similar to previous conferences. The dates are June 13 – 15, 2017 in Portland, OR. Smart Grid Northwest and PNNL are hosting the conference.

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TES 2018 will follow on to the 2017 meeting and the theme will be “what progress is being made relative to the road map.”

Mark noted that the TES 17 planning committee is now meeting weekly with participation by Smart Grid Northwest, the Portland meeting host.

Mark reminded everyone about the TES 17 call for papers. The PointView site is open for and a spot is provided to submit abstracts within one of four key areas listed as appropriate for the paper topic.

Ron Melton noted that TES 17 will not have an international panel but in lieu of that international participants will be encouraged to attend and possibly participate in the Smart Cities panel that will be discussed more in-depth at the GWAC F2F in San Diego.

Ron Bernstein commented that the area of Smart Cities may have more active in Europe than in the US but smaller cities have similar efforts in the US.

An area of interest expressed asked how you would get a good communication path in Cities such as with the switch to LEDs for street lights. The retro fit is at almost no cost. A high definition power communications line could be installed with a camera on the light pole for enhanced security.

David Wollman, NIST, mentioned that NIST hosts an energy based super cluster in its Smart Cities Challenge. There are many transportation teams, an energy and utilities team.

Andrew Nicholls said that NIST has a Smart Cities document out for review now and David Wollman said this is a White House interaction on Smart Cities with connections to existing federal agencies. It's published in a federal registry and Ron Melton will post the URL for this document. Ron invited David to participate on the panel.

Ron presented the TE Roadmap status which were created with significant input from Paul DeMartini and Lorenzo Kristov who have updated him on the definition of stages from the FUER report since the last call.

Summaries of the threads (see slide) have been drafted. Initial material is in hand and will be circulated before the February meeting. Gaps between where we are today and we want to be will be discussed. GWAC input will be sought at the F2F to advance this discussion.

Tanya asked if one of the current council members would be willing to talk with her for an hour or so – David Forfia, Ron Melton and/or Mark Knight are willing to meet with her and get her up to speed on topics before the F2F.

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### *Informal Liasion Reports -*

David Wollman (NIST) noted an Internet of Things report for the Dept. of Commerce and stated that input has been requested a second time asking for information and guidance and the intersection of I of T with TE. They are doing some testbed work, and timing work to be discussed at the next NASPI meeting. In late spring they may hold a meeting on test beds. He doesn't have a lot of information about TE meetings but David Holmberg would be a good contact.

Chris Villarreal noted that there will be a NARUC meeting on Feb 12 in Wash DC. The theme is Innovation and Infrastructure. The agenda will be posted in the next week or two. Chris's committee will have a panel on Sunday morning on block chain regarding future electric transaction challenges. Reps from Ernest and Young will be presenting. David Hardin will be writing a white paper on this per Ken Wacks.

Ron Melton had just gotten a question on this from RTI and he may ask them to present at a future GWAC meeting.

It was noted that there would be a presentation on Block Chain at the next Cleantech meeting for use with both DER and TE activities.

Ron Ambrosio noted that he has done some research into hyper ledger as part of block chain and he found limitations regarding the ability to handle high penetration DER transactions although it is has proven abilities with financial transactions and providing audit trails.

Ron B – ASHRAE – converging on a Cyber Security standard (1:19) – can't hear him

Ron A – no update

Ken Wacks noted that ISO and IEC have published ISO/IEC 15067-3-2, "GridWise Interoperability Context-Setting Framework" as an international technical report. This document is based on the GWAC report of the same name produced in March 2008. It consists of 43 pages and is listed in the catalogs of ISO, IEC, and ANSI. This report was reviewed and processed by the ISO/IEC committee that Ken chairs and then approved by the member nations. He invited GWAC to submit additional documents for consideration by his ISO/IEC committee. The 2017 ISO/IEC committee meetings are scheduled for March 6-10 in Milan, Italy and September 11-15 in Bruges, Belgium.

SGIP has a new technical Committee chair, Robbie Simpson who was just elected.

Andrew Nicholls, EE RE – no report

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David Katz state that his organization is moving along with Green button expansion to water and gas using the Energy Star Bench Mark.

James Mater noted that SGNW is focusing on where they need to up the ante in terms of bringing in more participants and sponsors to TES 17. It was noted in yesterday's planning call that DER is not well represented; they may be doing a meeting later on DR storage and integration. With TE and DER specific, there is a gap between them. Portland General (the TES conference host) said it would be easier for him to get excitement from his organization if DER were in the conference title.

Tanya Barham agreed from a marketing perspective. Such as with Transactive test beds – DER is the logical step for interoperability between these two systems. Maybe through discussions on batteries people could be brought into this topic. TE loses a lot of people who are not familiar with it and would be interested in how it interacts with DER.

Tanya would be interested in helping to facilitate a panel in this area. One perspective could be how someone with solar panels on their roof who could participate in a Transactive market. Alternatively, would be entrepreneurs who might want to finance these activities.

Mark noted that there is a wealth of material on possible panels from this call and he and Ron will discuss these further and be in contact with GWAC participants on further steps.

Farrokh said *TE is bid* based – you need a different kind of mechanism and that's where TE is beneficial.

### **Actions:**

Mark Knight and Ron Melton have sent agenda items to Ron Bernstein.

The GWAC Chair, David Forfia and Mark Knight will follow up with Tanya Barham and Lorenzo Kristov to give them a one on one introduction to the history and achievements of the GWAC. Ken Wacks also offered to give them a briefing.

David reminded everyone to book their travel for the San Diego GWAC Face to Face and he hopes to see them at the meeting.

David requested a motion to end the meeting at 1:34pm PST. Mark Knight gave the motion and Stephen Knapp seconded the motion.