

## **Meeting Minutes**

**January 23, 2019**

### **GWAC Members**

David Forfia, Director, Enterprise Architecture & IT Transformation, Electric Reliability Council, TX

Ron Ambrosio, Chief Scientist, Utopus Insights, Inc.

Ron Bernstein, President, RBCG, LLC

Gerald R. Gray, Sr. Program Manager, Electric Power Research Institute (EPRI)

Joe Hagerman, Deputy Chief Scientist, NRECA

Doug Houseman, Grid Modernization Lead, Burns & McDonnell

Stephen Knapp, Vice President of Quality Assurance & Energy Markets, Power Analytics Corporation

Lorenzo Kristov, Principal, Electric System Policy, Structure, Market Design

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

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

Leonard Tillman, Partner, Balch & Bingham, LLP

### **GWAC Members not present**

Tanya Barham, Director of Operations, PEC

Thomas Sloan, Retired State Representative, State of Kansas

### **GWAC Associates & Emeritus**

Ron Cunningham, IT Enterprise Architect, AEP

Ken Wacks, Home, Building and Utility Systems

### **GWAC Guests**

Rahul Bahadur

Trevor Gionet, Introspective Systems

Jeff Katz, Grid Technology, IBM

Mark Knight, Burns & McDonnell

Dave LeVee, Powercast

Aaron Synder, EnerNex

Matt Wallace, Dist. Standards Eng., PPL

### **PNNL Support**

Ron Melton, GWAC Administrator

Susan McGuire, GWAC Coordinator

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### Administration

David Forfia called the meeting to order at 10:05 PST. David welcomed everyone to the first meeting of the year. He introduced Ron Melton as the returning PNNL Administrator since Mark Knight has left PNNL to take a position at Burns and McDonnell.

Ron Melton reviewed the administrative information. He would like to discuss the soap box talks, the first one will be at the Face to Face meeting.

Ken asked Ron Melton about the discussion from the previous meeting regarding the Transactive Energy Roadmap which he offered to take to the next ISO/IEC international council meeting for review and hopefully subsequent international distribution. A point to be discussed is if the Roadmap is relevant to European utility operators.

### **Action Ron: Talk further with Ken Wacks about international distribution of the TE Roadmap**

David Forfia asked for a motion on the December 2018 GWAC meeting minutes.

Stephen Knapp asked a question regarding the Soap Box discussion at the December meeting. He asked if the talks would be a monthly talk by GWAC members. He also asked if we agreed to do it at the Face to Face meeting in Tulsa. It had been discussed at the previous GWAC meeting as an addition to online GWAC meetings. Discussions regarding these issues were inconclusive.

Stephen Knapp then asked that the discussion be continued at the February face to face meeting.

Farrokh Rahimi gave a motion to approve the December minutes. Stephen Knapp seconded the motion.

Chair David Forfia heard no objections and the meetings were approved.

Ron Melton noted that GWAC members and associates should let both Ron and Susie know if they will not be attending a GWAC meetings.

Ron Melton reviewed the status of action items from the previous meeting.

It was noted that Mark Knight has talked with Leonard Tillman about the Framework doc.

### **Action: Jeff Katz and Ron Melton agreed to talk offline about the white paper.**

Jeff Katz noted that FERC meetings can come off the GWAC meeting list, he has his panel members that were behind that request.

Ron Melton discussed the GWAC presentation template. He reminded the GWAC that the template is not new and is to be used when people are representing themselves as GWAC, which is not new. There is a place to retain presentations on the GWAC website.

TESC19 planning is now well underway so the additional contact names from Jeff Katz are not needed any longer.

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#### White Papers

Joe Hagerman, Robert Burke and Ron Bernstein continue to work on a white paper on Smart Buildings. Joe will initiate a call to continue this effort to get the white paper written.

**Action Joe Hagerman: schedule call with the Smart Buildings white paper team**

Rahul Bahadur has the abstract, the introduction and an outline for the Valuation and Transactive Energy paper. Ron Melton will follow up with Rahul about this.

**Action: Ron Melton to follow up with Rahul Bahadur about his leading the Economic, Reliability, and Resilience Considerations for Transactive Energy Systems**

#### Upcoming Meetings and Conferences

Smart Energy Summit Feb. 18 – 20

DistribuTech Feb. 4 – 8

ISGT Feb. 17 – 21

TESC Minneapolis July 8 – 10

IEEE PES Aug 4 – 8

Ron Melton encouraged participants to send Susie any other meetings that should be on the list.

Ron Melton noted that Mark Knight has just stepped down as the GWAC Administrator due to his recent career change. Because of this the GWAC membership selection process is temporarily put on hold.

TESC 19 and the F2F in Tulsa are not changed – Ron Melton is stepping in to fill for now and to keep these things moving along. He asked everyone to have patience through this transition. He asked if anyone had any questions about this change.

Mark Knight apologized for the suddenness of this change. He expressed that he loves his participation in the GWAC. He is coming up to speed now in his new position but he will try to do what he can to assist Ron and the GWAC through the transition process.

Ron clarified that he won't be able to be on all of the white paper calls but he will shepherd the overall effort. He appreciates anyone who can step up and help lead these papers so that they can continue.

An email about the GWAC February Face to Face meeting in Tulsa has gone out regarding hotels and other logistics. Ron Cunningham noted that temperatures have been from the 30's to the 50's.

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Ron Cunningham also noted that there will be an informal dinner on Monday night, an announcement is forthcoming. Ron Melton will get into Tulsa around 5:00pm. The location should be in downtown Tulsa. For Tuesday evening it maybe a longer drive. James Mater gets in at 4:00pm and he asked Ron Melton for a ride to his hotel which Ron Melton agreed to. If that time would work for others please let Ron know in advance.

**Action: Ron Melton to meet James Mater in the Tulsa airport on their way to the F2F.**

Ron Ambrosio asked about remote access to the meeting.

Ron Melton told him that the plan is to have remote access and that we will set up a Zoom meeting instead of a Skype meeting for this. Connection details will be located in the meeting notice.

**Action: Susie to set up a Zoom meeting for the GWAC F2F and send the information out to the GWAC and Friends of GWAC lists.**

Ron Melton reminded everyone who is planning to attend the GWAC Tulsa F2F to send their registration information to both Ron Cunningham and to Susie McGuire. He then reviewed the agenda for the meeting:

### Feb. 2019 F2F Agenda Day 1

Time	Topic
8:00am – 8:15am	Sign in at AEP (Facility opens at XX:00am)
8:15am – 8:45am	Gather and morning refreshments
8:45am – 9:00am	Opening Remarks and welcome from AEP
9:00am – 9:20am	GWAC Administrative Business
9:20am – 9:30am	Last meeting actions update (get from prior meeting minutes)
9:30am – 10:00am	GWAC vote on new member slate for 2019/2020 and new member introductions
10:00am – 10:30am	Liaison Reports
10:30am – 11:30am	White paper updates (
11:30am – 1:00pm	Lunch Speaker – AEP key projects? (working lunch)
1:00pm – 2:30pm	TESC 2019 update
2:30pm – 3:30pm	NIST Smart Grid Interoperability Framework 4.0 Update (Avi Gopstein??)
3:30pm – 4:30pm	SEPA Grid Evolution Summit workshop planning
4:30pm	Adjourn

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The image shows a presentation slide with the title "Feb. 2019 F2F Agenda Day 2". The slide contains a table with two columns: "Time" and "Topic". The table lists the following items:

Time	Topic
8:00am – 8:30am	Gather & Morning Refreshments
8:30am – 10:00am	Update of TE Framework (material is on the share point site) Assign sections and break into small groups
10:00am - Noon	Distribution System Operators (DSO's) (Stuart McCafferty? – he did a recent report on this topic) <ul style="list-style-type: none"> <li>Extended Discussion</li> </ul>
Noon – 1:30pm	Working Lunch – Soap Box talk – Get to know the Council <ul style="list-style-type: none"> <li>Separate from any Soap Box sessions where Council members can discuss topics of interest, here each Council member gets 5-10 minutes to discuss their experience and how they got here</li> </ul>
1:30 – 2:30pm	Resilience workshop recap and new ideas <ul style="list-style-type: none"> <li>Monetizing Resilience</li> <li>Modeling Resilience</li> </ul>
2:30 – 3:00pm	Review actions
3:00pm	Adjourn

Stuart McCafferty will give a talk on DSO’s on Day 2.

The Soap Box discussion topic was revisited. Mark Knight explained to Ron Melton that the soap box discussions were proposed to be 10 to 15 minutes long and were to be given by GWAC members and associates. The intended purpose is to provide information on the background of the presenter, on topics that are of particular interest to them and to give some background on how they got involved with GWAC. This will help GWAC members and participants get to know more about the talent and experience of the GWAC and should increase opportunities for interaction and collaborations.

Trevor Gionet asked if he could attend the Tulsa Face to Face GWAC meeting as a non-GWAC member. Ron Melton affirmed that he could. Trevor may attend and will send in his registration information if so.

**TESC19**

TESC19 will be held at the McNamara Center the University of Minnesota. Ron Melton reminded David Forfia that he needs to approve something for the IEEE and should talk with Roseanne. The IEEE MOU has been signed which allows for co-branding.

The TESC19 call for papers has gone out and is posted on the GWAC website.

Ron Melton sent out meeting times for TESC19 organizers yesterday to indicate their time preference for their first meeting. His intent is to get everyone engaged. Ron Ambrosio commented that he can’t meet next Monday or Tuesday. Ron added Farrokh to the meeting since it was noted that Farrokh did not receive the email.

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Ron Bernstein is the treasurer for the meeting. They are working on the bank account and a loan to fund the account. IEEE has loaned \$20,000 for the meeting.

Ron Melton noted that Pat Ryan with PES recommended registrations be done through another company. They have access to the IEEE PES membership list, it is the same one that ISGT uses. Ron Bernstein, as treasurer, he will get two proposals. He noted that some companies charge by number of registrants.

Ron Melton reviewed the members of the TESC19 committee:



The image shows a presentation slide with the GridWise logo in the top left corner. The slide title is "TESC 2019 Organizing Committee". Below the title is a table with three columns: Role, Name, and Organization. The table lists various roles and the individuals assigned to them, along with their respective organizations.

Role	Name	Organization
Conference Chair:	David Forfia	ERCOT
Technical Chair:	Farrokh Rahimi	OATI
Industry Chair:	Doug Houseman	Burns & McDonnell
Secretary:	Ron Melton	PNNL
Treasurer:	Ron Bernstein	RBCG
Publications Chair:	Leonard Tillman	Balch & Bingham LLP
Plenary Chair:	Tanya Barham	PECI
Volunteer Chair:	Ellen Anderson	Energy Transition Lab
Technical Committee Members:	Chris Villarreal	Plugged-in Strategies
Members at Large	TBD	
IEEE Staff	Roseanne Jones	IEEE
IEEE Staff	Sue Koval	IEEE

Ron reminded everyone that the dates are July 8 – 10, 2019 including the tutorials.

**Action: Ron Melton to send Farrokh Rahimi the write up on the technical agenda. It is located on the Sharepoint site.**

Ron Melton asked if Ron Ambrosio and Farrokh Rahimi could be panelists at ISGT on the last day of the conference (Wed. Feb. 20, from 11:00 am to 12:30pm.). Doug Houseman will be there and he may be available – he wrote the NIST resiliency for energy paper. Mark Knight said that he was moderating it, and he is still planning to be there. Ron Melton said that if Mark could moderate then Ron Ambrosio and Farrokh would be on the panels. Ron wants to involve people from the Grid 3.0 workshop this past fall. Ron Bernstein will be there and was planning to participate, he was not sure about the dates. Ron

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Melton could also be a panelist. Abhi Gopstein and Ron Cunningham could also be involved if they attend. Ron Cunningham said that he likely would not make it.

Aaron Snyder also volunteered.

**Action: Ron M. will update the ISGT panel session info and the plan will be to go ahead.**

### Liaison reports

NIST is not working due to the government shutdown.

ISO/IEC JTC 1/SC 25 – Ken Wacks. His committee is responsible for IT equipment in buildings, applications, and energy management. This committee produced the GWAC interoperability report several years ago. They can add additional documents in the same manner, as a reference document. The document should be of general interest to internationals. April 1 -5 is the next meeting in Stockholm Sweden.

Ron Melton noted that the Roadmap is of interest in Australia. Gerald Gray said that Europe is interested in transactive energy and also blockchain.

**Action: Ron Melton to provide Ken Wacks with a copy of the document. Ken will socialize it at the April meeting and do a formal submission after that. Ron will need to send this with a formal request for assistance.**

David Forfia – SEPA - all the groups have things in progress. Some have missing participants due to the shutdown. Ken Wacks noted that Customer Grid Edge is the new name of his committee. David noted that the registration for the Grid Evolution Summit with early bird discount is open.

David noted that the Feb. TAC meeting is deferred due to conflicts with other meetings. March 19 is the next meeting.

EPRI – Gerald Gray – started a utility blockchain interest group. There will be a meeting in Milan, EPRI Utility Blockchain Interest Group (UBIG) is meeting in Milan, March 26th

The IEC 619/615 enterprise interface has reached IC calls the final draft. It will be published as an international standard. The IEC 61968-5 Distributed Energy Optimization (AKA DERMS interfaces) will be an FDIS in the IEC shortly

The Mother of all PlugFests meeting is being planned. It will be the week of September 23<sup>rd</sup> at the EPRI campus in Charlotte, NC. He is hoping to get good attendance. He noted that Tom McDermott, PNNL, is being copied on these meetings.

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Ron Bernstein gave an overview of the panel at ASHRAE. Mark Knight, Tanya Barham, and Leonard others were involved. 39 or so people attended. Ron provided a link to a website where the presentations and audio recordings of the panel are located:

<http://www.lonmark.org/connection/presentations/2019/AHR/>

Mark Knight noted that it was a 25 minute walk to the panel from the main meeting which may have reduced attendance size for the panel from what it could have been.

IEEE PES Doug Houseman and Farrokh: The technical committee met in Los Angeles a couple weeks ago, There will be TE and Resilience committees. There are several new working groups within PES. They are working on overhead covered conductors to provide fireproof resistance overhead.

California Wildfire meeting – CPUC will be setting up a meeting – Jeff Katz will send details to Susie to be added to the GWAC meeting list. It is the Wildfire Technology Innovation Summit hosted by the California PUC and others, March 20 -21, 2019 in Sacramento, CA. <http://firetechsummit.cpuc.ca.gov/>

Ward Camp is not on the call for EBC.

Mark Knight - noted Arizona Corporation Commission (ACC) feedback – the SEPA TE Working Group had a call with the ACC about transactive energy relating to the Transactive Energy (TE) Primer that SEPA is writing. The ACC (June 2018) opened the nation's first state regulatory docket expressly focused on transactive energy. They had found the GWAC TE Roadmap online and said they found it to be very helpful and informative and commended GWAC on the document.

#### **Adjourn**

David Forfia reminded everyone about the next F2F in Tulsa, OK Feb 11 and 12 and asked for a motion to adjourn. Ron Bernstein gave the motion and Gerald Gray seconded the motion. There were no objections. David reminded everyone to install Zoom before the Tulsa meeting.