Meeting Minutes

May 22, 2019

GWAC Members

David Forfia, Director, Enterprise Architecture & IT Transformation, Electric Reliability Council of Texas (ERCOT)

Ron Ambrosio, Chief Scientist, Utopus Insights, Inc.

Tanya Barham, Principal, Community Energy Labs

Ron Bernstein, President, RBCG, LLC -

Joe Hagerman, Program Director for ICF

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

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

GWAC Associates & Emeritus

Robert Burke, Robert Burke Consulting

Ward Camp, EBC

Ron Cunningham, American Electric Power

Mark Paterson, General Manager, Consumer Energy, Horizon Power, Western Australia

Chris Villarreal, President, Plugged In Strategies

GWAC Guests

Rahul Bahadur, VMware

Phil Davis

David Wollman, NIST

Larisa Dobriansky, General Microgrids

PNNL Support

Ron Melton, GWAC Administrator

Susan McGuire, GWAC Coordinator

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Administrative

David Forfia called the meeting to order at 10:08 PST.

Ron Melton gave an overview of the agenda.

David Forfia noted the minutes from the April GWAC meeting have been distributed. Ron Bernstein gave a motion to approve the minutes and Ron Ambrosio gave the second. With no objections the minutes were approved.

Ron Melton asked the GWAC members to let him know in advance if they will not be able to attend a meeting.

Ron Melton has reviewed and approvedtill the ISO/IEC form completed by Ken Wacks for proposing the TE Roadmap as an international technical report.

Ron Melton has not yet connected with Joe Hagerman on the smart buildings as transactive hubs white paper. A meeting is scheduled. Ron Bernstein has accepted the proposed time.

Ron Melton has forwarded information from Ron Cunningham to Ron Bernstein and he updated the GWAC activity matrix regarding the Grid 3.0 future white paper.

Regarding the use cases matrix for the` white paper that Rahul, Farrokh and others are working on – economic reliability Ron noted that it should be based on more than the judgement of the paper authors - others should agree as well. Ron suggested that a draft version be ready in time for the conference; it could be circulated at the conference and participants would be asked to provide their feedback. Ron Melton asked Rahul Bahadur to send him the information needed for the discussion and Ron Melton will set up a phone conference about it. Farrokh wanted to be on the call as well to discuss the use cases. Ron would like to have a draft of the paper to circulate to get feedback. Ron will schedule a call for the week of June 3. Ron will schedule Rahul Bahadur, Mark Knight, Farrokh Rahimi and Steve Knapp.

Action Ron: Schedule a call regarding the economic reliability white paper with Rahul Bahadur, Mark Knight, Farrokh Rahimi and Steve Knapp.

Today's meeting slides are on Gridarch.org.

Ron Melton reviewed upcoming conferences.

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Conferences and Events

(**Bold** indicates GWAC speakers)

- ASHRAE Annual Conference, Kansas City, MO, June 22 – 26, 2019,
- IEEE TESC, Minneapolis, MN, July 8 – 10, 2019
- NARUC Summer Policy Summit, Indianapolis, IN, July 21 – 24, 2019
- SEPA Grid Evolution Summit, Washington, DC, July 29 – August 2, 2019
- IEEE PES General Meeting, Atlanta, GA, August 4 – 8, 2019
- NARUC Annual Meeting, San Antonio, TX, November 17 – 20, 2019
- AHR Expo, Orlando, FL, February 3 – 5, 2020
- NARUC Winter Policy Summit, Washington, DC, February 9 - 12, 2020
- IEEE ISGT 2020, Washington, DC, February 17 – 20, 2020

GWAC website update

Ron has been talking with PNNL's Teresa Carlon about options. A cost analysis is underway.

GWAC Website

- Alternatives being explored
  1) Rework with WordPress
     a) Maintain hosting at PNNL
     b) Move to outside hosting
  2) Rework with Drupal and remain PNNL hosted
- 1a or 1b preferred. 1b would allow GWAC members to manage sections
- Incremental approach possible within budget constraints
- Analysis of cost differences between 1a and 1b underway – then will decide
- We can use some guidance from WordPress experienced GWAC members or friends of GWAC

If the site moved outside PNNL then GWAC members would be able to make updates to the site. They might need more information about using WordPress. Ron Bernstein said he would be happy to help with that.

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GWAC activity matrix

Ron Melton reviewed the updated version of the GWAC matrix which shows actions in progress. It is a one slide summary.

He asked if the Valuations and Economic Dimensions white paper is it the same as the Economic Resilience white paper.

Farrokh Rahimi thought they had started as two separate white papers but that they had merged to be one paper. Ron Melton said the list had come from a hand off of activities to Ron but something may have been miscommunicated. It will be noted that it is now one paper and that Rahul Bahadur is leading it. Ron will delete the extra paper from the matrix.

Ron Melton noted to James Mater that the GWAC activity matrix is not currently on the GWAC website. James asked if it could be made public. Ron Melton said that the matrix will be posted on GridArch.org initially and then after the GWAC website is updated this matrix can be placed there as well.

TESC19 update

Ron Melton noted that the TESC19 Org committee meets weekly.

The catering contracts are signed. Nine registrations are in. The sponsorship from OATI is in.

Ron had asked Anabelle Pratt if NREL could sponsor the conference.

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The papers are now in review. Farrokh is leading this effort. Abstract selections are being finalized.

Conference early registration ends June 7.

OATI is a platinum sponsor but Farrokh Rahimi noted that OATI would not object if there were more than one platinum level sponsor for TESC19.

Tanya Barham encouraged the GWAC to put snippets of information in their social media announcements about the conference.

Ron Melton presented a slide with the TESC19 Technical Theme and tracks -

Transactive Energy Systems in a Participatory Grid - A Framework for the Future

- Tracks (normal GWAC plus some variation incl resilience)
    - Regulatory and Policy (1)
    - Business Models and Value Realization (2)
    - System Design and Architecture (2)
    - Physical & Cyber Technologies and Infrastructure (1)
    - Resilience (1)
    - Visions for Participation (1)

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Program Structure

	Monday, July 8	
0800 - 1200	Tutorial 1	Tutorial 2
1300 - 1700	Tutorial 3	Tutorial 4
0700 - 1700	Registration Open	

	Tuesday, July 9		Wednesday, July 10	
0730 - 1700	Registration Open		Registration Open	
0800 - 1000	Opening Plenary Welcome Plenary Speaker or Panel GWAC Foundational Session		Day 2 Plenary Opening comments Plenary Speaker and Plenary Panel	
1000 - 1030	Networking Break		Networking Break	
1030 - 1200	Panel 1	Panel 2	Panel 5	Panel 6
1200 - 1300	Lunch Break		Lunch Break	
1300 - 1400	Workshop 1	Workshop 2	Workshop 5	Workshop 6
1400 - 1430	Networking Break		Networking Break	
1430 - 1600	Panel 3	Panel 4	Panel 7	Panel 8
1600 - 1700	Workshop 3	Workshop 4	Workshop 7	Workshop 8
1700 - 1830	Reception / Posters			

This basic program structure is now posted on the meeting website.

On Wed. OATI will host a tour of the microgrids center on their nearby campus. People will be able to sign up for this no-cost tour on the website.

Chris Villarreal has spoken with Nick Wagner, the NARUC president since Nov. 2018, about giving a keynote. No commitment yet but David Forfia is following up with him also.

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GWAC Foundational Session

- Build around TE Framework update?
  - Presentation 1: general changes – Forfia?
  - Presentation 2: 4.1 update – Tillman or Villarreal?
  - Presentation 3: 4.2 update – Rahimi or Kristov?
  - Presentation 4: 4.3 update – Ambrosio or ?
  - Presentation 5: 4.4 update – Snyder or Houseman?

For presentation 2 it could be Leonard Tillman or Chris Villarreal. If you could let Ron know who is the lead, and likewise with the other teams.

Aaron Snyder is not on the call today.

Leonard Tillman asked if the 4.1 update is something they could work together on? Ron Melton is OK with the tag team approach if time permits. The session may just be a discussion rather than based on slides.

Chris Villarreal agreed with Leonard with the team approach. He would like to have a call with Ron Melton as well. Ron said there would be ten minutes for each part. Chris and Leonard will figure out what the strategy is.

Farrokh Rahimi and Lorenzo Kristov have not yet discussed it. Ron Melton noted this is a plenary session and is not in parallel with anything else. Farrokh is OK as a team. He doesn't yet have his presentation. The expectation is that the Framework will be published and people will have had an opportunity to review it. Lorenzo said that with ten minutes, there is one minute for each section. Ron suggested that Farrokh take the lead and Lorenzo to provide commentary. Ron said that it may be best to emphasize what new material has been added.

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Ron Ambrosio had a team of people for the rework of 4.3. Ron Bernstein had worked on the diagrams. Ron Ambrosio had led discussions and done most of the editing. Ron Melton will note Ron Ambrosio as the lead.

Ron Melton has the action to talk with Aaron Snyder and Doug Houseman about section 4.4.

Ellen Anderson is the moderator for a plenary that has been put together.

Nick Wagoner will hopefully be the keynote plenary speaker for that panel.

The international panel has not yet come together. Ron noted that they could ask Mark Patterson to do an international plenary talk. Ron Bernstein said as long as there are good documented studies that he could pull from that it would be great.

Grid 3.0 GWAC is on hold at the moment.

Liaison reports

NIST - David Wollman – They are getting ready to send out a newsletter. NIST's new solar array panel is up, the size of 11 football fields, they will be able to collect some real time data. They will have some measurement capabilities to support smart grid research.

SEPA – Ron Melton for David Forfia – the SEPA Grid Evolution is coming up July 30 – Aug 1. Some good topics including transactive energy and grid architecture topics. Ron Melton, Mark Knight, and Andrew Kotter will do a training activity to train people on grid architecture techniques. It should be a kind of hands on session to give people a better understanding into grid architecture.

ASHRAE Ron Bernstein, no new information.

IEEE - Farrokh Rahimi – in August they will host a meeting on TE and TE Blockchain. There is an IEEE Standards working group working on TE blockchain.

IEEE ISGT 2020 - Ron Melton – meeting planning is well underway

NARUC - Chris Villarreal – state commission meetings are starting – the regional meeting in Cheyenne has a session on block chain. Wyoming has laws supportive of blockchain. There will be a lot of education on how utilities are planning distribution systems.

OPEN ADR - James Mater – they have a DER profile that they are working on for open ADR mgt. There will be a symposium in San Francisco on June 11, 12, 13. It will have something to do with Transactive Energy. There will be some information on Title 24 for California.

Ron reviewed the sponsorship list for TESC19. The GWAC board discussed contacts they have made and outcomes. Chris Villarreal said he would reach out to the regulatory people on the list. Ron asked about Minneapolis base companies and Chris will tackle those as well.

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Ron Melton asked the group if they should continue to work with IEEE on the TESC after this year and also asked about dates and locations for next year.

Farrokh Rahimi said that he was hoping to expand participation of the meeting. So far he is not seeing an increase.

Tanya Barham said that she is impressed with the support that IEEE has provided. She said that if we can start now thinking about the venue and dates next year that it might be able to increase attendance.

Ron Bernstein agreed that the support has been good. But he agrees with Farrokh that early registrations are not showing an increase in attendance.

Tanya Barham thought that it might be good to stay with IEEE a bit longer for consistency. She thought that the group should identify it's goals and it's skill set before changing.

Ron Bernstein encouraged everyone to get registered for this year's conference and to encourage others to do so.

Ron Melton noted that the TE conference should be an enduring event. We may not want GWAC to be a part of it forever; he would hope that it will be taken over by IEEE with some GWAC involvement but not so much of a time commitment. Ron said that would be an expectation that he has as the PNNL GWAC administrator.

Regarding location, Ron Bernstein thought it might be good to have next year's meeting in southern California. He said there is a lot to pull from there.

Tanya agreed with Ron.

Mark Knight thought Portland was a good location and working with Smart Grid NW and PGE was good for the meeting.

Tanya Barham said that she and Lorenzo may be able to find some California based meeting hosts. She really thinks that California would have good opportunities for TESC.

Ron Bernstein also thought of some ideas.

Farrokh Rahimi suggested UC San Diego.

Ron Melton noted that our university experiences have taught us that universities can be rather costly, comparable to hotels.

Ron Ambrosio agreed that the West Coast might be good for next year after two years away.

Ron Melton asked about dates.

Tanya Barham suggested May as a time frame. She feels there already a lot of conferences in June and July. She said that a lot of families want to vacation in June in July coupled with conferences already in that time frame.

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Ron Ambrosio agreed that May is a better month to avoid family conflicts.

Ron Melton said the flip side of April and May is that academic participants are still in school.

Ron Bernstein suggested an 18 month gap between conferences, such as a fall time frame for the next meeting.

Ron Melton said that had been done before. He said fall would work – even November.

Tanya Barham if we said "save the date," people could plan ahead.

Ron Bernstein said that this year's meeting as an IEEE meeting has been a big push and he's got a bit of fatigue regarding the next meeting.

Ron Ambrosio agreed that council fatigue is an issue but he worries about staying front and center in the community if they go to an 18 month pace.

Ron Bernstein thought that having some webinars in the off cycle time would help keep people engaged. He is doing something like that with another group that he works with.

Ron Melton said that SEPA is developing a strong interest in Transactive Energy. He asked Mark if he thought the SEPA TE working group could partner with GWAC on the conference going forward.

Mark Knight said he is not sure that SEPA got sufficient credit for their efforts last year. He said they worked really hard behind the scenes and they were interested in continuing the meeting but they had wanted to combine it with the Grid Evolution meeting and the GWAC council didn't agree with that move. The council wanted it to remain a standalone event.

Ron Melton said that this brings us back to Tanya's comment about what we want for the meeting.

Tanya Barham said we need to think critically about how to enable our partners and hosts to get the attendance up. She said that host organizations want to ensure that they will have sufficient attendance to cover costs.

David Forfia sent a message to the group that Nick Wagoner is working to organize his schedule so that he can be the keynote speaker for the conference.

Chris Villarreal said that there is a significant group of people who see SEPA as a front for Investor Owned Utilities (IOU). So there are people in the industry who would not want to attend for that reason. There was some discussion about this issue.

Ron Melton commented that Grid Forward is the new name for Smart Grid Northwest. They are transforming themselves at this time. He said next year might be too soon for them to host again.

Chris Villarreal said they have their workshop in November.

Ron Melton thanked the group for their insights regarding the next meeting.

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Tanya Barham commented that she liked the Zoom meeting platform much better than Skype.

Since there was no quorum Ron Melton adjourned the meeting without a motion.