

Meeting Minutes

June 21, 2023

GWAC Members

David Forfia, Principal Consultant, Utilicast,
Acting Chair for June

Ron Ambrosio, Independent Energy
Transformation Professional

Ron Cunningham, IT Enterprise Architect,
American Electric Power

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

Ahlmahz Negash, Sr. Power Analyst, Tacoma
Power

Mark Ortiz, Lead Architect, Schneider Electric,
New GWAC member

Farrokh Rahimi, Executive Vice President, Open
Access Technology International, Inc

Aaron Snyder, Dir. of Grid Technology
Consulting, EnerNex

Leonard Tillman, Partner, Balch & Bingham, LLP

GWAC Associates & Emeritus

Rahul Bahadur, Sr. Mgr. R &D, VMWare, Inc.

Ken Wacks, GWAC Emeritus

Mark Knight, Emeritus

GWAC Friends

Chris Irwin, DOE-OE

Stuart McCafferty, Emeritus

Craig Allwardt, PNNL

H. "Hawk" Asgeirsson

Larisa Dobriansky

Jeremy Roberts, Green Button Alliance

Seemita Pal, PNNL

Hayden Reeve, PNNL

Tylor Slay, PNNL

David Wollman, NIST

GWAC Members not present

Ron Bernstein, GWAC Chair and President
RBCG, LLC

Kay Aikin, Founder- CPO, Dynamic
Grid/Introspective Systems

Andrew Bordine, GWAC

Paul DeMartini, Managing Partner, Newport
Consulting

PNNL Support

Susan McGuire, GWAC Coordinator

Ron Melton, PNNL Administrator

Jaime Kolln, PNNL Co-Administrator

Meeting Minutes

June 21, 2023

David Forfia is the GWAC Chair today in Ron Bernstein’s absence.

David asked for a motion to approve the April and May minutes. Ron Ambrosio gave the motion. Ahlmahz Negash gave the second. There was no discussion on either set. David asked for a vote, and none were opposed. Aaron Snyder abstained from voting. The minutes were approved.

June 13-14, 2023	California Climate and Energy Forum	Santa Rosa, CA	Marc Costa		Investment, Innovation, and Inclusion: Locals Leading a Clean Energy, Climate-Stable Future for All
June 24-28, 2023	ASHRAE Summer Meeting	Tampa, FL	Ron Bernstein	Ron	Interoperability, Integration Design, Cyber Security, Enterprise to Building Automation
July 16-20, 2023	IEEE PES General Meeting	Orlando, FL	Ron A, Ron M, Others	Ron M	Meeting the Energy Needs of a Dynamic World
Sept. 11-14, 2023	RE+ Solar Power International	Las Vegas, NV			SEPA
Sept. 12-14, 2023	T&D World	Sacramento, CA		Aaron S	Future distribution grid
Oct. 16-18, 2023	GridFWD	Skamania Lodge, Columbia River Gorge	TBD	TBD	Grid Modernization – northwest region
Oct. 17-19, 2023	V2G Forum	Detroit, MI	Jaime Kolln		Accelerating V2G in the emerging V1G charging standardization regime.
Nov 6-9, 2023	ISGT Latin America	San Juan, PR			Disaster recovery and network transformation in times of climate Change
Jan. 22-24, 2023	AHR Expo	Chicago, IL			Co-sponsored by ASHRAE and AHRI and is held concurrently with ASHRAE's Winter Conference
February 19-22, 2024	ISGT North America	Washington DC	Paul DeMartini, Ron Melton		

Ron Melton reviewed the GWAC conference list. He commented that James Mater, Hawk Asgeirsson, Jaime Kolln, possibly Chris Irwin and he will attend the Detroit V2G forum in October.

Jaime has added the AHR Expo to be held in Chicago in January 2024 to the conference list.

Jaime asked the group for their input on continuing to endorse the AHR Expo which means giving them a few mentions and possibly providing a short education talk at the conference.

Ken asked if others from GWAC will attend DistribuTech. Jaime will add it to the list since it is now announced.

DistribuTech will be next Feb in Orlando per Farrokh.

Action: Add DistribuTech to the GWAC Conference list.

Ahlmahz Negash said she will attend GridForward in October. She is helping to organize the Huddle Sessions. Jaime is not certain if he will attend. Ahlmahz will let Jaime and GWAC know if there is a role for GWAC at GridForward.

Ron Melton noted that there will be a SEPA working group forum at the RE+ conference in Las Vegas, and also a Knowledge Graphs and Ontology Workshop session. That will give some of the GWAC experience in working with the RE+ organizers which will be helpful for the TESC 2024 organizers.

Meeting Minutes

June 21, 2023

Farrokh will be at ISGT Latin American in November and DTech 24. Jaime made a note.

Action: Add Farrokh to ISGT Latin America and DistribuTech 2024. (done)

Lorenzo Kristov was a speaker last week at the California Climate forum in Santa Rosa. He noted it was very well attended, with about 400 attendees. Different aspects on local governments in California were featured in parallel panels. He will send the GWAC links to some of the presentations and he can share slides from his talk which can be forwarded to the group. Lorenzo is interested in ways to provide leadership to local communities to help them discover how they can play a role.

Lorenzo will send the slides and the meeting program to Jaime, Ron, and Susie to send out to GWAC.

David Katz – recently attended the recent Retrofit Canada Conference in Montreal. He is featuring GWAC work at meetings he attends.

David Forfia provided a link to DistribuTech: <https://www.distributech.com/preliminary-event-schedule>

David also provided a link to the ISGT North America to be held in Washington DC Feb. 19 – 22, 2024; <https://ieee-isgt.org/> GWAC's Mark Paterson and Paul DeMartini are plenary speakers and so is Ebrahim Vaahedi from OATI. Gene Rodrigues, DOE Assistant Secretary for Office of Electricity is any opening day keynote speaker.

In other business Jaime said things are progressing on the AHR talks. Jaime has been working with PNNL Communications to create a new PPT slide for GWAC presentations which will be discussed later in the meeting.



Actions

- GWAC participants who have suggested topics or presenters please let Jaime Koln, Ron Melton, and Ron Bernstein know and copy Susie.
- Speakers from AHR Expo to record presentations
- Look into speakers for future GWAC meetings. Possible speakers: DOE EERE, OE
- Create a GWAC database of presentations for future talks and a speakers bureau post on the website.
- Create a catalog of speaker materials with links.
- Add a discussion of the GWAC Mission statement to a future GWAC meeting
- Meet with RE+ Organizers, then Schedule TESC 2024 Organizers meeting


TESC 24

Meeting Minutes

June 21, 2023

Jaime informed the GWAC that an introductory meeting was held with RE+ about the possibility of them hosting the 2024 TESC. The group has been talking with RE+ organizers and with SEPA leadership.

In the discussions Ron Melton also proposed having IEEE PES involved as a technical co-sponsor.

 **GWAC Projects**

Project	Grid Arch for Regulators	Grid Architecture White Paper	Grid Future States	GWAC Blog Content and Review Committee	THE NEXT BIG THING
Scope	Applying Grid Architecture in the Policy & Regulatory arenas	An introduction to Grid Architecture – including best practices and real-world examples	Update Grid 3.0 Future States	Decarbonization, GA for Policy	Council's primary focus for the next year – results of F2F meeting.
Audience	Policy Makers	Geared to stakeholders who aren't familiar with grid architecture	Industry Stakeholders	Industry stakeholders, public facing website	Council, Friends, All Stakeholders
Status	Case studies	Collected inputs and comments from working party members	Submitted to PNNL for editing and information release	5 blogs released, 2 in queue	Seminar AHR Expo Presented
Actions	Group: Lorenzo Kristov, Larisa Dobriansky, Kay Aikin, Farrokh Rahimi, Chris Villarreal, Mark Paterson	Finalize draft, polish graphics	Document is being reviewed and edited by PNNL.	Group: Kay Aikin, Ahlmahz Negash, Larisa Dobriansky, Ron Bernstein, Rahul Bahadur, Leonard Tillman, David Katz, Tim Schoechele, Heather Donaldson	Record Presenter Videos
Leadership	Lorenzo Kristov	Seemita Pal, PNNL	Ron Cunningham	Kay Aikin	Council

More will be discussed later in today's meeting.

Chris Irwin, US DOE told GWAC that with infrastructure investment, this continues to be an exciting time at DOE. They are investing for both grid and vehicles, and vehicle charging is starting to flow. The pace of electrification is redlining a variety of subject areas including supply chain issues, transformer availability, and things like that.

He will give us an overview of DOE Office of Electricity and inter-program office activities. Most of his time is filled with efforts in the area of vehicle-to-grid integration. It is the biggest in new load growth. His group is currently processing three reports to Congress on vehicle-to-grid integration. It is in OMB review and is not yet public. In addition, Congress has asked for two additional reports before it was even public on impacts to grid in EVs, which OE is leading and 90 days after that we are obliged to have a plan to mitigate those impacts to the grid.

He said about a month ago a report came out from the national academies on net metering and its potential future as a compensation mechanism for services at the edge of the system. The report had good observations and reflections. Dialogue on net metering has to be economic and any exchanges must be concrete and measurable. He said the national academies process is a black box for the DOE. DOE sets up the scope for the topic with funding and a blue-ribbon panel kicks it off and they don't see it

Meeting Minutes

June 21, 2023

until the report is final which typically takes over a year. DOE and SETO are interested in the outcome of the report regarding net metering, and it looks to be a promising contribution to this topic.

The DOE Solar Energy Office (SETO) and Wind Energy Technologies Office has launched the Interconnection Innovation e-Xchange Initiative (i2X) at the interconnection exchange. He sees it as a result of the decarbonization push. And the acknowledgement is that at the rate of interconnection at the bulk system at the distribution system needs to dramatically increase if we are going to be pursuing a decarbonization agenda. There is good funding for i2X Initiative as it tries to systemically look at the challenges of interconnection and connection processes. Looking at it from Vehicle to Grid Integration, you know VGI is just another inverter-based resource, and it is potentially bidirectional. It has a lot of common cause with interconnected resources on the generation side. We formed a good relationship with the i2X leadership, and we formed specific working groups within the initiative to be sure some newly revamped process for rapidly processing interconnection exchanges is as applicable to EV and perhaps DC fast charging stations and things like that as it would be to a new solar installation. So hopefully DC fast charging is going to find its way into the distribution system, there will be both transmission and distribution cited charging infrastructure out there.

The I2X is a good one to set our stages for.

Another aspect that has come up in the grid space that is applicable to all is hosting capacity map, especially in the days of early dialogue in the EV space. Some of our colleagues ask why we can't just publish a hosting capacity map, you can cite the infrastructure and we'll just build there, just tell us where it is. But it's by no means that precise. There's a lot of sensitive information involved in the formulation of these things. And the data has a questionable "shelf life," depending on what is going on in the system.

What has come to light is that we still need to have a lot more transparency of the grid. We need to need to protect and secure the grid. We need more transparent interfaces with the partners that we are looking to build into the system. There are a lot of questions remaining around that issue.

Chris said another point that has come up recently is that the hosting capacity map. He said the hosting capacity map is a signal to society to build where capacity is plentiful, not where it is sparse. But when the "red" areas on the map is where we are nudging society *not* to build a DC fast charging station and *not* to install distributed generation overlays with a disadvantaged community, we have a problem where actually we are encouraging DER proliferation away from disadvantaged communities and creating yet another equity gap in our community.

So, we have come to understand that we need to have parallel processes of grid transparency and to consider planning and upgrades in areas of disadvantaged communities where there are equity issues. We need to upgrade where there are equity issues.

The world continues to become more complex. We need to address deficits in our society.

Meeting Minutes

June 21, 2023

Outage Data Initiative Nationwide (ODIN) has had fantastic successes in the last six months. We have had power outage data interoperability data through both multi-speak and IEC standards affecting about 150 million customers in the U.S. It's one of the most successful interoperability initiatives that I have had the pleasure of working with. That tees up the fact that we need to have a much larger energy data strategy, similar to what has been doing on in the EU on a sort of a large scale understanding of the data framework necessary for this multi-participant system.

Link to the initiative: <https://www.energy.gov/oe/articles/white-house-call-real-time-standardized-and-transparent-power-outage-data>)

Q&A for Chris -

Ron A asked about the last one –

Chris gave a recap; with a DER Future you have prosumers and community energy – there's not a lot of understanding of the data framework necessary to truly accelerate this collaborative system. So, we are trying to create a systemic understanding of the data space as the Europeans call it around Green Button, ODIN – so it has a coherence and a logic to it.

Ken Wacks asked about disadvantaged communities – he asked if they are looking at ways to install DER in low income, rural, native American communities?

Chris reiterated that this is not an initiative – it's a problem that we don't have a solution for. We are acknowledging a gap in the system but we don't have a plan to remedy it currently. It doesn't matter if we fund DER proliferation in an area where the grid can't handle it.

Farrokh Rahimi said an EV draws power, and a DER generates power. The combination would be a microgrid. He asked if there are plans to promote microgrids in disadvantaged communities?

Chris agreed that this is a viable possibility but said it requires the conscious deployment of balanced resources as well as the strategic deployment of those balanced resources. There isn't balance in the current system. There is a lot of promise in having these DER things be complementary and grow at the same time, but we don't have an idea of how that could actually be actualized.

Ken – are there grants to explore this?

Chris – theoretically we are doing that now but it's not in my budget. However, there is funding somewhere in DOE and hopefully more going forward.

Jaime said there is some good work going on currently in OE. The energy storage for social equity is a program that's looking at how we can deploy energy storage. The biggest problem is that the communities that need help don't have the guidance or the technical knowledge. Programs historically tend to look for shovel ready projects. Energy Storage for social equity is a promising program, we're still at the beginning, it's a first of its kind program.

Meeting Minutes

June 21, 2023

Jaime asked if there is an activity where grid architecture concepts that we have already developed could be applied? Also, is there something we should look at in grid architecture equity that we should be working on?

Chris replied that Labs are the ones with the weapons pointing at the problem. We know that legacy 4kv distribution infrastructure is uniquely unsuitable for the future. We can't afford to rip and replace every kilometer of 4kv infrastructure at once. ...can we look at system topology and figure out how to triage it? Should we abandon some voltages and capacity to the past that have a structural rational to them.

Jaime agreed that we have to look at the future system to enable the next generations.

Jaime thanked Chris and he said he would stay on.


Jaime noted that James Mater was not able to join today, his talk will be rescheduled.

PowerPoint Slide Show - [2023 June GWAC DRAFT Meeting slides]

GRIDWISE

“Next Big Thing” / “Back from the Future”

- Presented at AHR Expo
- Recordings to be Developed and Published to YouTube
- What next?
 - Webinar planning
 - Development of a concise slide deck
 - More web page updates 😊



16

Meeting Minutes

June 21, 2023



Planning the "TE" Conference

- Proposed months in 2024: May, June, September, October
 - Mid-week; two full days and a half day
 - Tutorials are usually offered in advance of the conference
- Schedule Organizing Committee (OC) Meeting
 - Coordinate with Masoud Nazari (IEEE SBLCS Architecture Subcommittee)
 - Coordinated with Aaron Smallwood for SEPA regarding RE+ co-location
- Council Members Participating in the Organizing Committee?
 - At Least 4 Council Members
 - GWAC will Share Leadership Roles w IEEE OC Members
 - Sponsorship lead is one of the key spots needed
 - David Forfia has volunteered to be the Treasurer
 - The IEEE application is the first step and also a conference budget.

Jaime reviewed ideas in progress to gain visibility for GWAC work products. He worked with PNNL graphics, and they have created a new set of GWAC PowerPoint presentation templates soon to be released.

TESC 2024

Jaime noted that Chris Irwin gave us a good point for the future grid in his overview today when he noted that going forward 4kv isn't going to cut it. Jaime asked TESC organizers to start thinking about the technical focus of TESC24 and what panels they would like to see.

Jaime also noted that a meeting with GWAC and RE+ is scheduled for tomorrow. He, Ron Bernstein, Ron Melton, Susie McGuire, and David Forfia will meet with RE+ representatives to discuss the viability of TESC24 co-locating with RE+. We will ask RE+ to be the fiduciary for the meeting. SEPA is a major sponsor of RE+ and is involved in the organization of RE+. The group will discuss how might we integrate the TESC with SEPA RE+.

Ron M. suggested that those on the call tomorrow can help to emphasize the workshop, SEPA liked that idea. Ron M. also noted that RE+ is more of a trade show or expo format compared with IEEE PES. Last year's RE+ hosted over 26,000 people. TESC attendance could be significantly higher as a result.

Ron Melton suggested that TESC hold morning meetings only so that people can attend the RE+ in the afternoon each day. He asked the GWAC to consider this and ways to successfully co-locate.

Meeting Minutes

June 21, 2023

Farrokh Rahimi asked what is needed to be on the organizing committee.

Jaime said they were hoping Farrokh would be on the on the committee and thanked him for his interest.

Jaime said tomorrow's meeting is focused on logistics and we will ask if IEEE could still be involved.

Action: Add Farrokh to the TESC24 Organizing committee.

Jaime told Farrokh that tomorrow's meeting is more administrative, so GWAC attendance is limited. He added that RE+ is a separate organization from SEPA; they have a partnership, a non-profit to facilitate RE+. RE+ is a separate organization from SEPA. David Forfia noted that one of the partners is Solar Energy Industries Association (SEIA).

GWAC Work Group Updates



Grid Architecture White Paper

- Working Group: Seemita Pal, Ron Cunningham, David Wollman, Ron Bernstein, Ahlmahz Negash, Larisa Dobriansky, David Forfia, Kay Aikin, Aaron Snyder, Ron Ambrosio, Lorenzo Kristov, Farrokh Rahimi, Rahul Bahadur, Gerald Gray, Mark Paterson, Timothy Schoechle, Jeffrey Morris, Leonard Tillman, Andrew Bordine, Chris Villarreal, Ron Melton
- White paper draft is uploaded on Teams site, and Seemita will email to those working party members who do not have Teams access.
- Received reviews and Seemita is working through feedback so that we can finalize for publication. Once feedback is incorporated, Seemita will submit the final draft to editor for format review.
- Next steps
 - Any feedbacks will be addressed; final version will be run through PNNL's approval process and published shortly after.
 - Blog post will be created to advertise the publication

Seemita Pal – The Grid Architecture white paper has been reviewed and is on Teams. Seemita is sending it out to work groups members who are not on the GWAC Team site. She asked those who are reviewing the paper to let her know what changes are needed.

Jaime is making plans to promote the soon to be published GWAC white papers with a blog post to announce them.

Meeting Minutes

June 21, 2023



Grid Vision & Future State White Paper

- Submitted to PNNL technical editors for final review
- Review ongoing. Raised a few things that suggest that template updates and standardized acknowledgements are needed.
- Blog post will be created to advertise the publication.

Ron Cunningham recognized the efforts of the PNNL editors in reviewing the GWAC Grid Future States white paper. He noted that the PNNL editors have been very helpful in checking details with graphs and other aspects of the paper. There have been some prose edits to make the paper easier to read and found things that Grammarly didn't catch. The lead editor also found some template issues regarding acknowledgements and the *about the document* information that needed to be realigned with the focus of this paper.

Ron C. said once he gets a clean version, he will route it for final GWAC review. There were a couple of changes that he felt could change the intent.

Jaime reiterated that Ron C. has the final authority and that he should feel free to reject any edit that would change the intent.

Jaime also noted that we are refreshing the acknowledgements and disclaimers as appropriate, and these can be added to the GWAC white paper template that the technical editor has created for us.

Meeting Minutes

June 21, 2023



Grid Architecture for Regulators

Most recent update

- Team = Kay Aikin, Larisa Dobriansky, Jeff Morris, Mark Paterson, Farrokh Rahimi, Chris Villarreal, Ron Bernstein, Lorenzo Kristov
- White paper will be aimed primarily to GWAC Community:
 - Document our experience, observations and lessons learned from the use/non-use/value of GA in policy and regulation venues
 - Provide a basis for strategies to promote Grid Architecture among policy makers.
- Case studies identified thus far
 - National — FERC Order 2222; Multi-states' DSP approaches
 - State — NY REV; Maine legislative targets; Xcel MN rate case; CPUC High-DER docket; Colorado DSP settlement
 - Municipal — Portland ME; Hartford CT; Washington DC; Smart-city smart-grid connections
 - International — Ontario; Australia
- Tentative target for completion: TBD => Little progress on first drafts to date as contributors have been consumed by other priorities.

Lorenzo Kristov said he is waiting for case study drafts from everyone who came forward to participate. He said that he may need to scale back for some of the content that is not yet finished so that the paper can move forward. We will check to see who wants to stay involved.

Ron Melton suggested they start with a few case studies and add others later over time. It doesn't have to be done all at once. For example, start off with two or three case studies and add others incrementally down the road.

Lorenzo Kristov liked that idea and will look at reshaping it.

Jaime said each new case study could be a blog post.

Meeting Minutes

June 21, 2023



○ Liaison Reports

- NIST – David Wollman
- Green Button – Jeremy Roberts (*New*)
- EPRI – Sean Crimmins, Ben Ealey
- IEEE PES – Farrokh Rahimi
- ASHRAE, CTA, CABA – Ron Bernstein
- ISO/IEC, IREC – Ken Wacks
- SEPA – Aaron Smallwood
- NARUC – Jeff Morris

- Are there other organizations we should be hearing from?
- Candidates: OpenADR, Green Button, eMerge, SunSpec, CEA

Liaison Reports

David Wollman – newsletter link for Smart Connected Systems;
<https://content.govdelivery.com/accounts/USNIST/bulletins/35fc1f0>

Jeremy Roberts - Green button; He is thankful to be involved. He notes that was involved with GWAC at the constitution meeting and – he was a signatory on the GWAC constitution. He is planning to present to GWAC next month.

He said there are 2 methods used with Green Button; one is *download my data* and the other is *connect my data*. Both methods started with data initiatives funded by the U.S. government. With *download my data* you log in; select the data you want and download the information as a file which can be shared with applications as needed. With *connect my data* a customer authorizes the use using OAuth for use by a third party.

He mentioned that Michael Murray, with Mission Data had mentioned 36 million are now using connect my data – they work with Green Button.

Jeremy mentioned numbers for the US and Canada. He said that both Nova Scotia and Ontario have mandates. They have nearly 60 utilities online in Ontario for both the download and the connect

Meeting Minutes

June 21, 2023

functions of Green Button. The goal is to be complete by November 1 of this year, and they are about 45% complete.

Connect my data started just before the pandemic (but he said a year and a half?)

David Katz asked if you could bring it into portfolio manager – including gas and water. Jeremy said those links are being talked about and he gave David some specific information.

Jeremy noted that there are some differences between intervals that portfolio manager can accept and intervals that the green button can output. He said there are different ways that the meters are handled and referenced so these need to be converted to get the information up. Portfolio manager will export in green button, but it won't input yet for green button.

Jeremy added that InterCan is really pushing the solution and hopefully he will have more to discuss before year end.

Ken Wacks asked about *connect my data*. If he had a controller on premises – would he need to enroll the controller so it could get his data, and can he use to manage energy internally?

Jeremy replied that a controller is not necessary; you would need an internet connection. Green button comes out of the billing side of an organization. A distributor would use the same data that they would use to produce the bill or online portals that and that information would be accessed via an API. Some of it depends on the jurisdiction if they can give 15-minute data or 5-minute data. A restriction would be how much data it can store. It's whatever they are collecting and at what interval on the back side.

With connect my data you are essentially connecting one server to talk to the utility server, and then whatever applications and access you have for that server is up to design. But it's a server-to-server environment.

Ken asked if his meter is recording frequently, and he has *connect my data in* use could he see real time usage?

Jeremy replied no and said that is not the purpose; it's not to replace SCP-2 or any other connections of the NCT12. It's not to replace anything that exists today. The meter is irrelevant in terms of anything but collection.

Ron C. asked about next generation AMI meters that will offer a different comm interface to the meters rather than a ZigBee type approach. It will be registered meter values and in that that case you would have to realize you are delaying with raw data, unvetted, and per second readings, and how to interpret multipliers and other aspects that have to be applied to raw data.

Ken had some information about new smart meters from a recent Grid Edge meeting. He said Itron is developing such next generation smart meters. <https://irecusa.org/our-work/customer-grid-edge/>

Meeting Minutes

June 21, 2023

Jeremy added that one thing they know about commercial users of green button is they are doing their metering on-site on their side of the meter and then on the utility side they're getting the billing information. The billing data. When he says billing, he is also referring to smaller intervals hourly and quarter hourly.

They're getting that information and then a comparing what they're reading on the inside of their facilities compared to what they're getting from the billing systems of the utilities using green button.

So, it's important to note that regardless of how the information gets back to the utility - green button, once it's once it is in the green button form is only coming from the utility so that it's always a standard format.

Ron C. mentioned that the other key thing is that AMI meters are specific to revenue grade meters and a lot of the other metering that you put on the other side necessarily isn't to that level of accuracy.

Jeremy agreed with Ron C.

Stuart McCafferty asked how much market penetration there is.

Jeremy said they are getting a lot due to mandates. Green Button has been around for 11 years, and Green Button Alliance has been around for about 8 years. They had mandates in initially various places including California, Texas and Illinois had mandates, but none had called out certification. But now that they are getting mandates for certification starting with New Hampshire where it was signed by the governor, this action is driving other states such as New York with a multi-use system. Ontario and Nova Scotia have to be certified still.

Just last week some senators intro a new bill on "e-access." It is to close some gaps in help for homes program, part of the Inflation Reduction Act. The new bill will ensure certification is involved.

Jeremy noted that Green Button does not lobby due to their tax status. They provide education and certification but no lobbying.

Farrokh noted that he and Ron Melton are very involved with ISGT North America. Both will participate in the PES General meeting in Orlando next month. They are also involved with Puerto Rico/ISGT Latin America. He noted that he and Ron M. are on the governing board for blockchain energy, it's an extension of the previous effort in blockchain enabled transactive energy.

He noted that there are many presentations and panels that relate to GWAC activities.

Farrokh also mentioned DistribuTech 2024 in Orlando in February. He and Ron M. will attend that meeting and also.

Jaime mentioned the recent Grid Edge conference in San Diego which he attended. A lot of utility stakeholders attended, not as many distributed resource owners. He asked if IEEE was pleased with the event.

Meeting Minutes

June 21, 2023

Farrokh confirmed that IEEE was pleased with the turnout. He said that going forward it will take place every other year. The T&D transmission distribution conference will be scheduled in the off year. Grid Edge was very successful and will be continued.

Ron Bernstein had a conflict and is out today so no ASHRAE updates.

Ken Wacks – ISO/IEC Ken noted that he is the ISO IEC committee chair responsible for international home, building and energy management standards.

Ken also noted he is the project leader of the standard that was published about 10 years ago, providing a framework for energy management on premises using the concept of the energy management agent as a controller that determines sources of energy helps the user allocate energy to loads, subject to their budget and other constraints, such as their desire for a minimal carbon footprint. This standard has now been approved for revision.

The fundamental change in the standard is that it will be more consumer centric than it will be utility centric for energy management. They've developed a working draft that's now been advanced to a committee draft, and it's going out now for review by the member nations.

A new series of standards is being developed to host the energy management agent using the gateway as a platform for applications for a variety of home applications. We are preparing for our next semiannual meeting in October to be held for the first time in three years face to face in Berlin, Germany.

Interstate Renewable Energy Council, IREC; Ken chairs the Customer Grid Edge Committee which has a lot of members from the solar community. A recent presentation was on the next generation of smart meters. The next meeting is on July 14 and will discuss a new approach to transformers to accommodate excess power from DER. A representative from a start-up company in the UK called Ionate will be giving the presentation.

IREC is looking for new presenters so if anyone has an interest, please contact Ken Wacks. IREC meets every 2 weeks. Contact Ken at KenWacks.com

No NARUC participants today.

Ron M. – SEPA; a new effort from the grid architecture working group will include the CIM in the catalog of standards. We are also having detailed discussions about which elements of the CIM to start with and what order of priority and then assessing the effort that will be needed. He added that Aaron Snyder is involved with this from his “day job,” with EnerNex.

Ron commented the CIM is one of the most underused and misunderstood standards out there.

Ron C. agreed.

Ron M. encouraged anyone interested in working with them on SEPA projects to join in. He noted a strong correlation with some of the SEPA working groups, GWAC and IEEE interests.

Meeting Minutes

June 21, 2023

Jaime recognized Mark Knight on this call and thanked him for his work with GWAC and interesting papers he has led.

PowerPoint Slide Show - [2023 June GWAC DRAFT Meeting slides]

Date	Topic or Speaker	Format	Other
June 21, 2023	GWAC Meeting - 10:00am to 12:00pm PT	Online	
July 12, 2023	GWAC Meeting - 10:00am to 12:00pm PT	Online	Jeremy Roberts (tentative) Rescheduled for PES GM
August 16, 2023	GWAC Meeting - 10:00am to 12:00pm PT	Online	
September 20, 2023	GWAC Meeting - 10:00am to 12:00pm PT	Online	
October 3-4, 2023	GWAC Face to Face Meeting	In Person	EnerNex (Knoxville)
September 9-12, 2024 ???	Face to Face		

Upcoming GWAC Meetings

Jaime suggested a F2F in Sept. 2024 during the RE+ meeting.

Ron M. will retire in April 2024.

Jaime noted the F2F in Knoxville scheduled for this October that Aaron Synder and EnerNex have offered to host.

Ron M. added that David Forfia has proposed a Face to Face in Texas next April.

Meeting Minutes

June 21, 2023

➤ New Intro Slide Animation



Jaime presented a new slide template that was created at PNNL for GWAC presentations. He demonstrated the sound and video.

Ken Wacks commented that the National Highway Traffic Safety Administration (NHTSA) safety standards now require that audible noise must be produced by an EV traveling slower than 20 mph. Auto makers are hiring musicians to compose unique sounds associated with the brand of EV.

Jaime asked if there were any objections to 2024 AHR Expo support by GWAC and there were none. Jaime has discussed it with Ron M. and Ron B.

David Forfia asked to adjourn the meeting and there were no objections.

Ron Ambrosio gave the motion to adjourn, and Leonard Tillman seconded the motion.

Ron A. commented that will have dinner with Ron Bernstein in Tampa this weekend.

Next GWAC meeting will be July 12.

Meeting Minutes

June 21, 2023



ADJOURN

**NEXT MEETING: WEDNESDAY, JULY 12, 2023
10:00AM TO 12:00PM PACIFIC TIME**



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