

## Meeting Minutes

July 15, 2020

### GWAC Members

David Forfia, GWAC Chair

Ron Ambrosio, Independent Energy Transformation Professional

Tanya Barham, Principal, Community Energy Labs

Ron Bernstein, President, RBCG, LLC

Andrew Bordine, VP Energy Mkts & Innovation, Anterix

Ron Cunningham, American Electric Power

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

Stuart McCafferty, President, GridIntellect

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

Leonard Tillman, Partner, Balch & Bingham, LLP

Aaron Snyder, Director of Grid Technology Consulting, EnerNex

### GWAC Members not present

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

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

### GWAC Associates & Emeritus

Kay Aikin, CEO, Introspective Systems

Rahul Bahadur, Mgr. of Engineering, VMWare

Mark Knight, Burns & McDonnell

James Mater, QualityLogic, Inc.

Jeff Morris, Principal, Energy Horizon Corp.

Chris Villarreal, President, Plugged In Strategies

Ken Wacks, Home, Building & Utility Systems

### GWAC Guests

H. Ward Camp, Energy Blockchain Consortium

Ronald Chebra, EnerNex

Larisa Dobriansky, General Microgrids

Amro Farid, MIT

Dave LeVee, PwrCast

David Katz, Sustainable Resources

Tony Thomas, NRECA

David Toquica, LIREI, Univ. of Quebec

David Wollman, NIST

### PNNL Support

Ron Melton, PNNL, Administrator

Karen Studarus, PNNL Administrator

Susan McGuire, GWAC Coordinator

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### Administrative

Ron Melton noted that the meeting is being recorded.

### 🕒 Agenda

#### Call to Order and roll call – David Forfia

#### GWAC Administrative Business

- Administrator change
- Minutes and actions
- Upcoming events
- GWAC Projects Overview Chart review

#### Technical and Policy Activities

- TESC Status and Discussion Overview Material – Melton / Studarus
- Technical & Policy Activities
  - Smart Buildings as Transactive Hubs Update – Bernstein / Melton
  - TE FAQ – Barham
  - Electric Industry Visions – Statements of the Future Grid - Cunningham
  - Planning for fall GWAC F2F Meeting - Studarus

#### Liaison Reports

#### Review Action Items

Ron introduced Karen Studarus as the new GWAC PNNL Administrator. She will start running future GWAC meetings starting with the next meeting. There was some discussion about Karen's official installation as well as new members at the Fall Virtual F2F meeting.

Ron will continue to be engaged with the GWAC, but he will step back to a certain degree. He will remain involved with TESC20 and other GWAC projects but not the leadership.

### Meeting minutes

David Forfia asked if there were any changes to the June meeting minutes. Susie noted that the June minutes received one correction from Chris Villarreal noting that those changes have been made. Farrokh Rahimi gave a motion to approve the minutes and Ron Ambrosio seconded the motion. David Forfia asked for a vote which was unanimous, and the minutes were approved.

### 🕒 Administrator Change

- Planning to transition the GWAC Administrator role to Karen Studarus at Fall Virtual (formerly F2F) GWAC Meeting
- Karen will run the web meetings starting in August
- Thanks to all for the support you've shown in working with her to get up to speed with GWAC!

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### TESC 2020



- Conference now VIRTUAL 7-11 December 2020
- Two two-hour sessions each day for four days + plus more pre-recorded content.
- IEEE Advanced Technology -PSOPE Power Systems Operations, Planning & Economics and SBLC as partners, and AMPS – *sent the conference description*
- GWAC Organizing Committee: *David Forfia, Farrokh Rahimi, Gerald Gray, Leonard Tillman, Ron Bernstein, Mark Knight, Jeffrey Morris, Ron Ambrosio, Tanya Barham, Mark Paterson, Karen Studarus, Ron Melton*
- Theme – “Architecting a Resilient Transactive Grid”
- Status:
  - Description / Call for Participation – finalized and sent
  - 50+ abstracts received, review process begun. (MORE REVIEWERS WELCOME)
  - Program structure scheduled
  - Keynote speakers
    - Plenary panel of DOE program managers (Irwin, Gupta, Moreno)
    - Keynote Speaker (TBD)
    - GWAC Foundational Session – built from Future States Work
  - Working with IEEE to identify new budget structure
    - Lower registration fee
    - New Sponsorship Structure
    - Costs of software platform, publication, registration
- **Promotion needed**

Karen reminded the group that there will be a GWAC review of the website refresh on July 20 and the invitation has gone out.

Migrating the old pages and refining the design is on schedule. The effort is still on track to switch over around the end of July. The new site is not yet live. Karen will show everyone the visuals and layout in the meeting.

Ron Melton has updated the GWAC matrix.

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### GWAC Projects – June 2020 Update

Project	TE FAQ	Smart Buildings as Transactive Hub White Paper	TESC Conference	Grid Future States Update
Scope	Short document reiterating key features of TE systems as documented in TE Framework, etc.	Discuss use case for building integration with grid and how/what a TE model might look like	Annual GWAC sponsored conference focused on Transactive Energy and related topics	Update Grid 3.0 Future States
Audience	Policy, Regulators, Legislators, TE Practitioners	Building owners, energy managers, utilities, end users	Decision makers, solution providers, labs, academics, policy, solution providers	Industry Stakeholders
Status	Short form complete	Reviewed	Program structure created for virtual or F2F	Started in January. Now meeting regularly. Coordinating with GMLC Grid Architecture results
Actions	Post to new website	Address peer review comments	Promote conference, work on identifying and recruiting keynote(s) and plenary panels	Working group is gathering inputs and organizing material and has a work plan
Leadership	Tanya Barham	Ron Melton, Ron Bernstein	Various – Ron Melton Lead	Ron Cunningham, Karen Studarus

## Review Meeting Minutes & Actions

- Approve minutes from June GWAC Meeting

### Action items from previous meetings

- **All:** please let Ron know if you will be unable to attend a call ahead of time.
- ✓ Schedule Fall (Sept, Oct) F2F Planning meeting as virtual (Melton, Kristov, Cunningham, McCafferty, Bernstein, Barham, Aiken)
- GWAC members to provide ideas for a successful Virtual Fall "F2F" meeting
  - ✓ Meeting #2 was held July 8
- ✓ Action: Schedule a future separate session for review of the website refresh with the Council. Susie will coordinate with Karen. (scheduled July 20 at 1pm)
- ✓ Action: Ron Melton and Ron Bernstein to discuss splitting the SBATH paper into two papers and a path forward.
- ✓ Action: Ron M to send a copy to Chris Irwin of the Economic Resilience paper and the Decision Makers Checklist
- ✓ Action: Karen Studarus to add Andy Bordine, Stuart McCafferty and Lorenzo Kristov to the Electric Industry Visions white paper group. complete
- Action: Karen Studarus to keep Ken Wacks apprised of the progress on the TE Roadmap and Framework edits for the ISO/IEC. . (Complete – Ken submitted back to ISO/IEC)

Ron noted that all action items are complete from last month.

Ken noted that the ISO IEC action is complete.

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## Conferences and Events

(Bold indicates GWAC speakers)

- **SEPA Grid Evolution Summit, Washington, DC, July 27 – 29, 2020 (now virtual)**
- **IEEE PES General Meeting 2020, August 2 – 6, 2020 (now virtual)**
- **2020 TE Theory Workshop, hosted by Don Hammerstrom, PNNL Sept. 14-18 – virtual**
- **SEPA Working Groups Meeting, September 22 – 24, 2020, Virtual**
- **GWAC Fall (formerly F2F) Meeting, October 7 – 8, 2020, Virtual**
- ~~IEEE PES T&D Power Forward 2020, Chicago, October 12 – 15, 2020 (cancelled)~~
- **IEEE (GWAC) TESC 2020, virtual - December 8 – 10, 2020**
- **AHR Expo 2021, Chicago, IL, January 25 – 27, 2021**
- **IEEE ISGT 2021, Washington, DC, February 15 – 18, 2021 – now virtual**

The T&D Expo in Chicago has been cancelled. IEEE PES (some part may go virtual)

DistribuTech is still planning to go as a live meeting. It could change. Ron B. is working with them. Ken Wacks said he is planning to attend.

## TESC 2020



- Conference now VIRTUAL 7-11 December 2020
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- **Promotion needed**

Karen noted that the TESC20 Organizing Committee members shown on the slide is not correct, the members are David Forfia, Farrokh Rahimi, Ron Ambrosio, Ron Bernstein, Gerald Gray, Jeff Morris, Tanya Barham, Leonard Tillman, Mark Paterson, Mark Knight, Susie McGuire, Ron Melton, Karen Studarus.

We are still on track with the TESC 2020 Virtual meeting in Dec. Karen noted that the meeting dates are Dec. 7 to 11. Dec. 7 is the date of the Tutorial.

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The call for TESC20 participation brought in over 50 abstracts. Farrokh will lead the abstract review process. He noted that they hope to find a couple more reviewers. Kay Aikin volunteered to be an abstract reviewer.

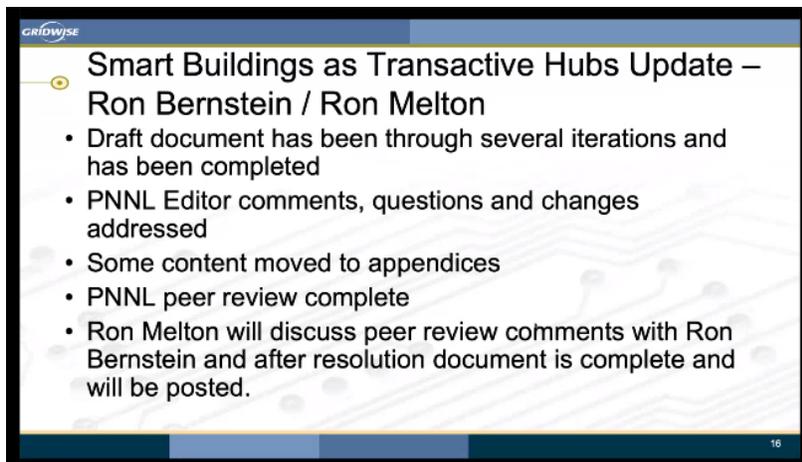
**Action: Add Kay Aikin to the TESC2020 Abstract reviewer list**

TESC2020 Keynote speakers - Karen reviewed the Keynote speaker list, starting with the DOE panel about current work across DOE which Chris Irwin had suggested. She noted that the Future States effort would inform the GWAC foundation session. Karen reminded the group that keynote talks will be prerecorded. In the coming weeks the committee will finalize the keynote speaker list and they will need to identify the software platform that will be used to conduct the conference.

**Action: Organizing committee to finalize the speaker list and work on getting commitments****Action: Organizing committee to select the software platform for the meeting.**

Ron M. noted on the ISGT call yesterday that the IEEE platform may not be free. IEEE representatives were not clear on when charging will start. They said even prerecorded content will have a fee. It might be they don't start charging until after 2020. Roseanne will get this information for the committee. Ron also said that it was his understanding that GWAC would need to get their own [ON24](#) account per IEEE.

ON24 seems to be IEEE's preferred platform. Ron is working with that platform now as a presenter for another meeting so he will have some experience to share. Farrokh is also doing this. Ron and Farrokh are prerecording their presentations which is a good learning experience for TESC20.

**GWAC White Paper SBATH paper -**

**Smart Buildings as Transactive Hubs Update – Ron Bernstein / Ron Melton**

- Draft document has been through several iterations and has been completed
- PNNL Editor comments, questions and changes addressed
- Some content moved to appendices
- PNNL peer review complete
- Ron Melton will discuss peer review comments with Ron Bernstein and after resolution document is complete and will be posted.

Farrokh commented regarding a figure reference in the SBATH paper that needs to be corrected in the text after the last table. Ron Bernstein will make the correction.

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Ron M. noted that the SBATH paper has been cleared through the PNNL release process and was reviewed by Hayden Reeve who is taking over the TSP program from Steve Widergren.

Ron M. suggested that the SBATH be circulated through the GWAC community and see if there are any additional comments. There are some IR review comments to review and it will be ready to go. Ron B and Ron M. will meet to go over the comments that have come in.

### TE FAQs - Tanya Barham

#### TE FAQ – Tanya Barham

- Full version and “twitter” version written and reviewed
- FAQ version has been reviewed by GWAC administrator and PNNL information release – couple comments from Steve Widergren
- Discuss today: What’s the right distribution? (Post on GWAC website? Post on GridArch for social media use by GWAC? Both?)

Tanya Barham reported that the TE FAQ short version or “Twitter version” has been reviewed at PNNL. Steve Widergren, PNNL, had some comments which Karen has addressed. Ron M. asked Tanya her thoughts on where it should be posted. Ron M. said it could have a place on the updated GWAC site.

Tanya agreed that it should go on the GWAC website. She also replied that the committee is now creating a longer version and she commented that it also should be available on the GWAC website.

**Action: Post the TE FAQ on the GWAC website.**

Tanya shared a feedback suggestion that she received for a “Grid Architecture 101,” which could also have a short “Twitter” version and a longer version. She and others are trying to recruit someone to lead this effort.

Ron M. commented that there is an active SEPA work group that is putting together a Grid Architecture Primer. These efforts may overlap.

### Future Visions - Ron Cunningham

#### Electric Industry Visions – Statements of the Future White Paper

- Continues discussions carried over from Grid 3.0 group that took place during last GWAC F2F meeting
- Working Group: Cunningham, Studarus, Ambrosio, Forfia, Melton, Wollman
- Meeting monthly (or more often as needed)
- Status
  - Objectives Defined, Deliverables set in moldable clay
  - Putting out Formal Request to industry stakeholder groups for source material
  - Characterization / Assessment of material to start late summer
  - Initial findings at GWAC fall meeting (with invite for balance of GWAC review/comment)
  - Findings and Next Steps for TESC 2020 GWAC Foundational Session

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Ron Cunningham said that it is important for the core team to review the draft material that was has sent out. Key is defining the levels on the radar charts or “web” charts. Feedback is needed to help define the levels.

Also, we need to get closure on the formal request letter. Then they can get the formal request out to organizations and get their comments. There will be another call this Friday that Ron C. is organizing.

**Action: Ron Melton to write a couple paragraphs for the Future Visions group for the formal request.**

### —🕒 GWAC Fall Virtual F2F

- Theme: Electric Industry Visions – Statements of the Future
- Format: 2 days, 2 sessions per day (dry run for TESC 2020)
- Dates: Oct. 7 – 8; 8AM – 10AM (PT) & 1PM – 3PM (PT)
- Planning group met and roughed out schedule
  - What is pre-recorded
  - What is live, etc.
  - What interactions do we try out as a test for TESC 2020?

### GWAC Fall Virtual F2F

Theme is Electric Industry Visions and the format is outlined. See the slide!

The theme is centered around future visions.

### —🕒 Liaison Reports

- NIST – David Wollman
- ISO/IEC JTC 1/SC 25 – Ken Wacks
- SEPA – Aaron Smallwood (new)
- EPRI – Gerald Gray
- ASHRAE – Ron Bernstein
- IEEE PES – Farrokh Rahimi
- EBC - Ward Camp
- NARUC – Chris Villarreal

### Liaison Reports

Dave Wollman - NIST - 4.0 framework smart grid - Avi Gopstein finished his mods. It should be published for public review in the next couple weeks. It has been quite a task.

<https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1900-205.pdf>

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NIST also just held a successful auto driving safety workshop. They used Blue Jeans for their virtual presentation platform. One lesson - have lots of redundancy. Everything they thought would go wrong did. Side deck controllers lost their network connection. You need full control at the back end for the moderator. Have contingency plans.

Ron M. noted recent DOE smart manufacturing work which reported on concepts about General Mills looking at oats coming to the cheerio's factory. So, as the cheerios are made, they responded to farmers with optimization ideas for oats. Ron has some connections that he could provide if anyone is interested.

ISO/IEC - Ken Wacks explained that the GWAC Roadmap and Framework documents were offered to ISO/IEC as two technical reports. (ISO and IEC are organizations in Geneva, Switzerland that develop industrial standards to promote world trade. Most nations are members of ISO and/or IEC. ISO and IEC collaborate on standards for information technology (IT).) The term "technical report" refers to background information that could be useful in the development of international standards. Ken made a formal submission of these documents on behalf of the GWAC. The 40 Member Nations of the ISO/IEC subcommittee subsequently agreed to authorize publication of these reports. The ISO/IEC publication directives are very detailed about the format of published documents. The ISO/IEC publication specifications cover layout, structure, grammar (Queens English), references, etc. Ken noted that PNNL editors revised both documents, but there was still more to be done. Some communication difficulties were encountered with several messages getting caught in spam filters. Karen had the unenviable task of reviewing editorial changes to finalize the reports. Ken and Karen have been working together and spent all afternoon last Wednesday making the requested edits. Karen added end-note citations to the document so that citations can be easily managed. Ken submitted the edited report to the IEC editor in Switzerland who is overseeing the publication process and to the committee manager in Germany.

Ken said he hadn't heard anything so on Monday he checked back with the IEC editor to ensure the documents had been received. The editor said the IEC is doing a final review. No further actions are needed by GWAC at this time. But the IEC did verify that both documents were received. Ken thanked Karen Studarus for her efforts, and Karen thanked Ken for helping to facilitate this effort.

Ron M. told Ken that when the Interoperability checklist was sent to ISO/IEC a couple years back this level of editing had not been required. Ken said this is because there is now a new editor with new ideas. Ken commented that the revised documents are now well formatted and were made a bit more generic, so they were not specific to the United States or to PNNL. Ken then asked if there were any new documents from GWAC that should be submitted to ISO/IEC as technical reports.

Ron said right now the GWAC doesn't have any additional documents to send.

Ron said as Tanya had just mentioned, the GMLC grid architecture efforts that Jeff Taft has led should be socialized by GWAC. He suggested that a grid architecture framework doc that distills together Jeff Taft's work might be amenable to a framework document. If GWAC were to do this, we might write it so that it would be more easily recast into the generic focus that is needed by the ISO/IEC.

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Ken said the GWAC would also want to be careful with comments about regulatory groups to not be specific to the United States.

Ken noted the next ISO/IEC meeting will be Sept. 14 and it will spread out that week and the week of Sept. 21. They will again be virtual meetings (3 hours each day). Please contact Ken if you are interested in participating. ISO/IEC will be virtual through the end of 2020. Meetings will start at 10:00am Eastern time.

SEPA - David Forfia - noted that Aaron Smallwood is on vacation, but he sent in notes for this meeting.

Sharon Allan appointed by U.S. Secretary of Energy Dan Brouillette for a two-year term on the DOE Electricity Advisory Committee beginning July 1.

- <https://sepapower.org/knowledge/sepa-chief-strategy-officer-sharon-allan-appointed-to-doe-electricity-advisory-committee/>
- **Deep into the planning cycle for SEPA's 2021 content portfolio.** Focused on our four pathways:
  - Grid Integration
  - Utility Business Models
  - Regulatory Innovation, and,
  - Transportation Electrification
- Will begin interfacing with the SEPA Working Group Chairs on July 27<sup>th</sup> to identify opportunities to leverage the industry expertise from SEPA working groups to advance SEPA's mission, Working Group goals, and industry.
- **Major new initiative underway, SEPA's Utility Transformation Challenge:**
  - Comprehensive assessment of utility clean energy and grid modernization efforts.
  - Unique in the industry and hasn't been done before. Survey participation by utilities has exceeded expectations. Survey focuses on six elements:
    - Corporate Strategy
    - Demand Flexibility
    - Grid Integration
    - Utility Business Models
    - Solar & Storage
    - Transportation Electrification
  - Will result in:
    - Updates to the SEPA Carbon Reduction Tracker
    - The survey results
    - Utility Transformation Snapshot report
    - Industry recognition for utility transformational leaders
  - More info here: <https://sepapower.org/utility-transformation-challenge/>
- **SEPA's Grid Evolution Summit is ON (virtually):** <https://sepapower.org/grid-evolution-summit/#tuesday-july-285f0f188fc4811>
  - Tues, Jul 28 – Thurs, Jul 30.

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- **Significantly reduced registration fee**

Ken Wacks is chair of the SEPA Customer Grid Edge meeting - URL:

<https://groups.sepapower.org/workinggroups/community-home?CommunityKey=729ddc98-bebf-410f-9994-f26543f1e353>

Contact Ken for more information.

EPRI - Gerald Gray - Gerald is the technical editor for standard 61968-5 on distributed energy optimization which defines the interfaces for DERMS. The final draft for international standards is coming out soon. Related to Interoperability topic - EPRI had dev four test scripts for various IEC standards. They gave xml examples and step by step to determine compliance. One thing he has learned is that developers don't like to read standards, but software developers sure like to copy and paste code. So, if one can provide an interpretation of the standard that they will be tested to it will help them do a better job of writing code that meets that requirement. EPRI has created some scripts that they can drag and drop into their development environment. This was a public mission of EPRI. So EPRI just granted those scripts and files to the UCA IUG through an APACHE 2 license. This will be used in their compliance tests and certifications going forward.

Gerald noted an effort related to the Jeff Taft idea - EPRI is trying to create a common business capability model for use across the utility industry. It would be a use case capability model. There are some created already by utilities and there is a non-public one. A top-level deliverable for EPRI will be a Level I business level capability model; A DSPX model. It is not directly related to architecture directly, but it would be used as a roadmap and to do gap analysis on architecture. It is related from the standpoint of what technologies underpin those capabilities. There might be some synergy here. The model is a pattern.

**Action: Ron Melton will talk more with Gerald offline. Ron and Gerald will follow up on this idea. Ron will also talk with Tom McDermott, PNNL. Ron has something CIM related that Gerald might be interested in related to GridAPPS-D.**

David Katz posted a link to an ENTO report on "Structural Options for Ontario's Electricity System in a high-DER future:" [DERS from the IESO](#).

Chris Villarreal posted a link to a June 2020 report by the [California Energy Commission \(CEC\)](#) on the "Complete and Low-Cost Retail Automated Transactive Energy System (RATES)." CEC-500-2020-038. If anyone has comments please send them to Chris Villarreal.

Kay Aikin posted comments made to [PV magazine](#), "Real-time pricing that integrates more solar power is proven to work in California."

ASHRAE - Ron Bernstein - he just attended the summer meeting with lots of good talks on smart buildings. The efforts that have to do with what may become guide specification document on energy

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management, the guideline 13 document. He expects work to begin on it later this year and he will pull from the SBATH paper to a degree.

IEEE PES - Farrokh - had to leave early so Ron Melton reports that he met last week with people from IEEE noting that he is the chair of the smart building loads and custom systems tech committee for IEEE PES. He asked if ASHRAE had any MOU's or other ASHRAE overlaps with SBLCS and they said they do MOU's with other SDOs. Our committee might be able to join hands with ASHRAE. Ron B. agreed that he is seeing more MOUs lately with ASHRAE's new president. Ron M. thought SBATH might be embraced by some of the technical committees and he listed SBATH as a technology trend for PES. He may write something for the newsletter on this. Ron M. is looking to see if there are ASHRAE committees that his committee can team with. Ron was then asked to provide material for a technology trends newsletter, and he will use the SBATH paper for this. Ron B. said several GWAC have talked to him about extracting information out of the SBATH paper.

Tanya Barham also would like to use the paper to inform a lightning talk that she was invited to do. She would talk about TE and building innovation space. Ron M. told her that should be fine to do.

Ron B. thought we might be able to prepare a slide deck and then record a presentation on SBATH at TESC20 and then use the material for other purposes and opportunities in the future.

David Katz said he appreciated this discussion - he is hoping to use it in their building intelligence quotient effort. He is hoping to see it published soon.

**Action: Ron M. and Ron B. to talk more about opportunities for SBATH offline.**

Ron B. noted that Farrokh already has someone who wants to cite the SBATH paper.

Energy Blockchain - Ward Camp said he had no updates.

NARUC - Chris Villarreal - The next meeting is annual and that is expected to move to virtual. It is scheduled for mid-November. The December meeting of the national council on energy policy is progressing. The agenda is still being drafted, not sure if it will be in person or not. He noted a new report by the California Energy Commission from last month. It is primarily about Southern California Edison looking at TE architecture. One of the things cited has to do with the access of customer energy usage data to support the project.

Chris asked anyone with comments about this report to let him know:

<https://ww2.energy.ca.gov/2020publications/CEC-500-2020-038/CEC-500-2020-038.pdf>

They reached out to 170 candidates in S. Cal Edison territory. They found that of those, 40 people were intimidated by the SCE customer information request form. Customer data access, forms and the customer consent process to the use their information (preferably over the Green Button) is an issue for us to keep in the back of our minds as to how to make it work. Utilities and state Regulators need more work on enabling consumers to share information in a much easier manner than they have had historically. Some online forms have up to nine pages to click through to provide consent. It shouldn't be

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a huge sticking point. It needs to be simplified for general use. He said customer data access and consent is a continuing challenge. He mentioned two pending white papers coming out of New York on this topic. Comments are due by Sept. 11. He noted that the Transactive Energy System is enabled by having access to customer data.

Gerald Gray said phone apps are not looked at so hard. Maybe that would be the way to go.

Tanya Barham noted that PECL was a third-party integrator. She said that her experience is that many utilities have IT departments that are not well-staffed. She gave an example and said that utilities typically have little internal capacity to establish a secure API. She said that PECL as a third party, did get the data it needed but the data had to be scrubbed to be able to be useful. She said there is a lot of work yet to be done to make the data useful, transferrable and secure. She said there were not very many people within any of the utilities who could help with the data.

Ward Camp replied to Chris V. that his company is doing this with Apps noting that they are doing it for AEP and DTE. They are getting AMI data in real time, securely with an app, with no PII. He said there are several utilities doing it both with AMI data and real time data coming off every 2 seconds. He said Green Button is being implemented several different ways with various requirements. He said that Green Button can be cumbersome and intimidating. If you are a third party, you must integrate to each utility.

Chris V. said he might say it differently about Green Button which was underscored in the CEC report. There is no standard out there for utilities. They built it how they wanted it. He said the Conn Edison version is using an uncertified version of Green Button. He noted that a lot of utility rollouts are not certified. That becomes a challenge with interoperability - how do you ensure that standards are being implemented in a way that is consistent to the standard and able to be certified to the standard? A lot of utility rollouts are not certified to the standard.

Gerald Gray said a problem with Green Button is that standardized processes and available resources. What he sees with Green Button is that they took the standardized API and the standardized business process and then were then customized it as the utility.

Tanya said Ron Cunningham might be able to speak to this. She said funding is usually tied to an internal need. It's not built to be friendly to third parties.

Ron B. said Jeremy Roberts is a close contact and he could help people connect with Jeremy about Green Button. If there are concerns, he can get them right to the top, he'd be happy to help.

David Katz said that they worked hard to comply with Green Button with gas, electric and water utilities and he said it was a big challenge. They made a significant effort for Green Button with these utilities.

Gerald said a User Community for that standard could help to resolve these issues amongst stakeholders. He also said he is surprised that utilities often don't compare their problem with the experience of other utilities in a User Forum.

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Ron M. noted that each utility has their own solutions rather than trying to see what others have done and follow suit.

Chris V. commented that at the Atlanta PSC, it was noted that utilities often don't know what has already been solved and it creates challenges in the marketplace.

Tanya said there is not a lot of incentive to use standardized operating procedures for integrations. They are getting compensated program by program. The programs are funded through specific dockets for specific aspects. There is not a lot of incentive to use standardized procedures.

Ron M. agreed with Tanya and said you get the behaviors that you reward.

Gerald said he calls that the run to failure mode of IT. What started his experience was when he was at the utility and he realized other people had similar problems to the ones he was experiencing, and he wondered how they were doing this thing.

Ron Cunningham said it depends on the utility. The example of everyone trying to solve their problems on their own without looking at anyone else - he disagrees with it. He said if people would look outward rather than trying to solve on their own it would be a sign of maturity. He sees this constant re-engineering as a waste of resources.

Kay Aikin gave an example saying at a meeting someone commented that they don't look at papers older than ten years. He said it was in seismology.

Ron M. said maybe that is natural human proclivity.

Ken Wacks asked about Einstein's relativity theory since it is a document that is over ten years old.

Stu McCafferty asked about CTIA - they have a smart cities working group on maturity models and educating cities on wireless communication. He asked if GWAC could do a 30-minute presentation on this. Michelle James is who he is thinking of, she is a VP with CTIA. He would assist with the presentation. Ron M. suggest he talk more with Karen Studarus and we can put her on the agenda for a future meeting.

**Action: Karen Studarus and Stu McCafferty to talk more about doing a presentation with Michelle James on smart cities and wireless communication at a future GWAC meeting.**

Ron M. noted that GWAC likes to have guest speakers and 30 minutes is about right for time.

### **Noted Actions:**

**Ron M. needs to follow up with Ron B. about SBATH feedback comments so it can be published.**

### **Adjourn**

Everyone thanked Ron Melton for all his efforts with GWAC. Additional thanks went out to Karen Studarus for stepping up to take the reins from Ron.

## Meeting Minutes

July 15, 2020

David thanked Tanya for the championing the FAQs and Ron M. thanked everyone for contributing to SBATH.

David Forfia noted next meeting is Aug. 19 and Karen Studarus will lead it. Ron Bernstein gave the motion to adjourn. Ron Cunningham gave the second. No objections were raised to adjourning 26 minutes early. The meeting was adjourned.