Meeting Minutes

Feb. 19, 2025

GWAC Members

Ron Bernstein, GWAC Chair and President, RBCG, LLC (*attended first part of the meeting*)

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

Ron Ambrosio, Independent Energy Transformation Professional; *Today's acting GWAC Chair*

Shawn Chandler, Director, Guidehouse

Marc Costa, Dir. Policy Planning, the Energy Coalition

David Forfia, Principal Consultant, Utilicast

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

Aaron Snyder, Dir. of Grid Technology Consulting, EnerNex

Leonard Tillman, Partner, Balch & Bingham, LLP

GWAC Associates & Emeritus

Rahul Bahadur, GWAC Associate

Ron Cunningham, GWAC Emeritus

Ken Wacks, GWAC Emeritus

GWAC Guest Speaker

Blake Ellis, ASHRAE

GWAC Friends

Hawk Asgeirsson

Bob Bass

David Breecker

Ward Camp, Modernization Consultant

Don Hammerstrom, PNNL

Kamal Jhala, ANL

Jiri

Yashar Kenarangui, Xcel Energy

Volkmar Kunerth, Accentec Tech.

James Orenstein, Trinity River Community Solar

Alex Papalexopoulos, ECCO International

Harry Peterson, Siloxit

Tim Schoechle, Colorado State Univ.

Julie Stroba, INS Engineering

David Wollman, NIST

PNNL Support

Jaime Kolln, PNNL GWAC Administrator

Susie McGuire, GWAC Coordinator

Grace Borland, GWAC Financial Coordinator

GRIDWISE Architecture Council

Recording Notice

To assist with the preparation of accurate notes, the discussions at this meeting are being recorded. The recording will not be used for any other purpose than preparing meeting notes.

The Council Administrator may request guest speakers' permission to post the video of their presentation which, with approval, becomes available on our YouTube channel.

Please respect your fellow attendees and presenters by raising your hand to speak. This also aids in editing of our presenter's videos.

Additionally, the council recently determined by unanimous vote that the use of AI tools and techniques would not be permitted in these meetings.

Meeting Minutes

Feb. 19, 2025

GRIDWISE Architecture Council

Agenda

Call to Order and Roll Call

- Welcome

GWAC Administrative Business
- Minutes
- Upcoming events
- GWAC Accomplishments
- Action Items

Guest Speaker – Blake Ellis, ASHRAE, "Decarbonizing the Built Environment: ASHRAE's Strategic Approach"

Future Activities
- Call for Council Members is open
- GWAC Strategic Outreach Plan
- AHR Expo
- Planning 2025 GWAC Tutorials

Work Product Status Reports

- Working Party Status Update
  - Next Big Thing Slide Deck
  - Grid Future State White Paper
  - Grid Arch for Regulators White Paper
  - Applying Grid Architecture Concepts to Bridge Back from the Future Grid
  - Grid Architecture Concept Model for Transportation Electrification
- Liaison Reports

New Business

Administrative Business

GRIDWISE Architecture Council

Review and Approve Meeting Minutes

- **All**: please let Susie McGuire know if you will be unable to attend a call ahead of time.
- The minutes for December 2024 and January 2025 have been distributed and will be voted on.

Meeting Minutes

Feb. 19, 2025

Conferences and Events

GRIDWISE Architecture Council

Date	Event	Location	Attend	Speaker	Topic
Feb. 10 – 12, 2025	AHR Expo and ASHRAE Winter Conf	Orlando FL	Ken Wacks	Bernstein, Ambrosio, Forfia, Bordine, Kolln	Grid Arch/Future States GWAC/DLC Mixer proposed
Feb. 23-26, 2025	NARUC Winter Policy Summit NARUC Summer July 27 – 30, W Palm Beach Fl	Washington DC	Kay Aikin		Shape the Future of Utility Regulation
Mar. 19-20, 2025	RE+ Microgrids	New Orleans, LA	Kay Aikin		policy meeting on 3/18
Mar. 24, 2025	Smart Energy Consumer Collaborative Consumer Symposium	Dallas, TX	Jeremy Roberts		Shaping the Future: Consumers and the Energy Movement
Mar. 24 - 27, 2025	DistribuTECH	Dallas, TX	Forfia, Rahimi, Kolln, Yashar Kenarangui		
Mar 25, 2025	Green Button Alliance's Annual General Meeting	Dallas, TX	Jeremy Roberts		
Mar. 26, 2025	Smart Energy Summit	Dallas, TX	Ken Wacks		Co-located with DTECH
April 14 – 17, 2025	IEEE Energy & Policy Forum	Washington DC			Formerly ISGT North America
April 15 – 17, 2025	Microgrid Knowledge Conference	Dallas, TX			
May 6 – 9, 2025	DOE Energy Storage Safety & Reliability Forum Knowledge Conference	San Juan, Puerto Rico	Jaime Kolln		
July 27 – 31, 2025	IEEE PES General Meeting	Austin, TX	Farrokh Rahimi, Jaime Kolln, Lorenzo Kristov, Kay Aikin		
Sept. 8-11, 2025	RE+	Las Vegas, NV	Jaime Kolln		GWAC Tutorial on Monday, Sept. 8
Oct. 22-24, 2025	ASHRAE Building Decarbonization Conference	Chicago, IL			

Ken Wacks said he attended the AHR Expo including the GWAC tutorial panel.

Jaime Kolln and Kay Aikin are planning to attend DistribuTECH.

Kay is also going to RE+ Microgrids.

Meeting Minutes

Feb. 19, 2025

GRIDWISE Architecture Council

Action Items

- Send speaker ideas to Jaime Kolln and Ron Bernstein and copy Susie McGuire.
  - **Added an "About the Council" slide to template**
  - Slide deck templates are available to GWAC members.

- Website updates
  - Continue to add video presentations including speakers to GWAC database bureau post on the website.
  - Feedback requested on format, etc.
  - GWAC and Emeritus GWAC to review their bios from the website and update if needed.

- GWAC call for candidates
  GWAC members will vote on the slate today

Jaime noted that updates to the GWAC website are in progress. The goal is to shift the site into a tool that will allow better software support in the future.

Ron Ambrosio said that with David Forfia' s input in the chat we would have quorum.

Ron Bernstein made a motion to approve the December and January meeting minutes.

Shawn Chandler seconded the motion.

Ron Ambrosio asked for a vote. The meeting minutes for December and January were approved with no objections.

Jaime Kolln introduced the slate of candidates to be voted on for the GWAC class of 2025 – January 2027:

GRIDWISE Architecture Council

Proposed Class of 2025-2027

Kay Aikin

Ron Bernstein

David Forfia

Yashar Kenarangui

Matthew McDonnell

Mark Ortiz

Jaime invited the GWAC members not up for a vote to go to the QR code and email a yes or no vote.

Acting Chair Ron Ambrosio counted the votes throughout the meeting.

Meeting Minutes

Feb. 19, 2025

GRIDWISE Architecture Council

GWAC Strategic Outreach Plan

- Events
  - Presented at the AHR Expo
  - RE+ Las Vegas
  - Other presentation?

- Guest speaker recordings continue to be developed and published to YouTube

- Outreach through conference presentations
  - Slide deck to be developed with template and GWAC outreach slides.
  - NARUC meeting colocation?

- Other organizations to "cross-pollinate" ideas with.
  - Identify liaison volunteers, e.g. INCOSE

Marc Costa said that in southern California they are putting together a blue-ribbon council on rebuilding after the recent wildfires. He has concerns because so far there has been no one with grid architecture experience. He said it could get a bit political, but the community would benefit from some expertise in power systems. Jaime said he would be happy to participate. Kay expressed interest and also suggested Fred Fletcher.

Marc thought the time frame would be sometime in April or May.

Aaron Snyder also expressed interest if he doesn't have a time conflict with the meeting.

Marc noted that since it would be building from the ground up it could be an interesting opportunity.

Jaime said GWAC has new feedback and input from the AHR Expo that could be added to the presentation. He also noted the About the Council Videos developed by PNNL Communications could be included.

Ron Ambrosio agreed it is a good video and informative.

Jaime asked for feedback regarding a potential GWAC meeting co-located with NARUC at their summer meeting July 27 – 30 in Boston, MA.

Aaron noted the date conflict of July 27 – 31 for the IEEE PES General meeting.

Meeting Minutes

Feb. 19, 2025

Ron Ambrosio asked for a motion on the December and January GWAC meeting minutes. Ron Bernstein gave the motion and Shawn Chandler seconded the motion. There were no objections, and both sets of meeting minutes were approved.

Jaime introduced Shawn Chandler as today's speaker noting that he has been a GWAC member for one year.

Shawn Chandler noted that he is a big proponent of IEEE standards. He has held roles mostly in the area of grid edge. He was the founding chair of the Smart Buildings, Loads and Customer Systems that will soon be renamed Grid Edge Technical Committee.

He said that the technical committees with IEEE work to promote standards, develop standards and sponsor working groups.

Shawn is currently the Chair of the Interoperability Task Force on one of the standards, P2418.5 Blockchain for Energy. He noted that blockchain is a technology and it's not just for cryptocurrency. He said it is a very interesting technology which is all about distributed systems. We will need distributed systems and platforms at the grid edge, and we will need to optimize grid ops to the best extent possible.

Shawn Chandler

Chair, IEEE 2418.5 Interoperability Taskforce

Special Thanks to IEEE P2418.5 and 2025 GridEdge

Meeting Minutes

Feb. 19, 2025

GRIDWISE Architecture Council

DER System Evolution at the Grid Edge with DLT

Guest Speaker : Shawn Chandler, GWAC Member

Shawn Chandler is a Director at Guidehouse, supporting development and execution of Infrastructure, Resilience and Energy Systems portfolio projects. He is the Utility Solutions lead for Guidehouse's Western U.S. region bringing more than thirty years of experience in the energy industry focusing on grid operations, market systems, data & analytics and IT/OT. Shawn is a frequent contributor to industry thought leadership, serving as the Chair of the IEEE PES Smart Buildings, Loads and Customer Systems technical committee from 2015 to 2019, advancing standards for grid interaction with distributed energy resources behind-the-meter. He is past chair of the IEEE Smart Cities organization steering committee and was an invited participant in the National Governor's Association Smart States initiative, the U.S. Congressional Smart Cities Caucus, and was the Smart Cities track chair for the IEEE World Forum on Smart Cities. Shawn currently Chairs the IEEE's P2418.5 Blockchain for Energy – Interoperability Taskforce, advancing energy industry technology interests through the application of distributed ledger systems. Shawn has made frequent literature contributions to conferences, webinars, online and traditional media regarding transportation electrification, IoT, smart city, distributed energy systems, blockchain, machine learning, and artificial intelligence topics of interest, and currently serves on the editorial board of the IEEE Internet of Things Magazine as an Associate Editor.
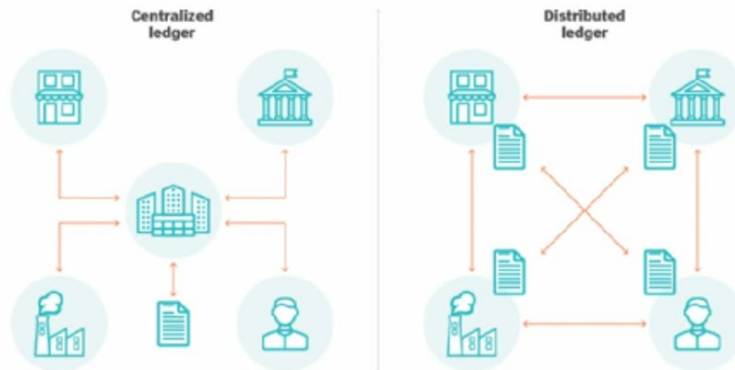
GRIDWISE Architecture Council

Distributed ledger technology

Background

Source: https://www.techtarget.com/searchcio/definition/distributed-ledger (2025)
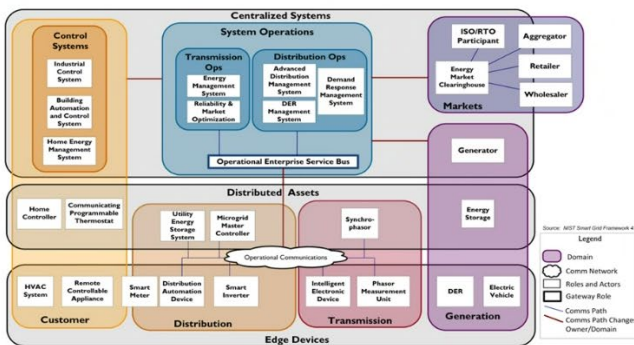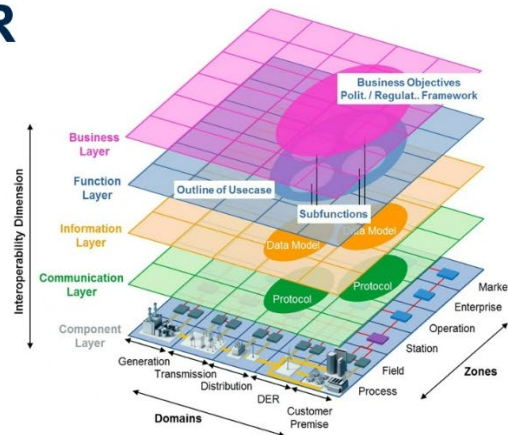

GRIDWISE Architecture Council

Background for DLT & DER
Starting with NIST SGF 4.0[1] and SGAM[2]

Data exchange: occurs between entities in the system, including control (utilities), regulators and asset owners / aggregators

DLT: platform for business, functional, information and communication interoperability dimensions

"NIST Framework and Roadmap for Smart Grid Interoperability Standards, Release 4.0." National Institute of Standards and Technology Special Publication 1108r4 (February 2021) https://doi.org/10.6028/NIST.SP.1108r4
(Unverified)

"CEN-CENELEC-ETSI SGAM User Manual." Reference Architecture Working Group, CEN-CENELEC-ETSI (November 2014) https://syc-se.iec.ch/wp-content/uploads/2019/10/SGCG_Methodology_SGAMUserManual.pdf

3

GRIDWISE Architecture Council

DLT Combines Interoperability Layers

DLT enables DER data management, process automation

Functional Capability & Process Automation

1) Condition-based processing
   - "Smart contract" automation of optimal objective functions, constraints, etc.
   - Code-based processing guarantees

2) Traceable
   - Knowledge of every DER transaction in minutes, optimization of services
   - Record of every DER state, action, data source, and timing for market alignment

3) Secure
   - Encrypted process automation
   - Every node can transact directly with any other node participant

Communication & Data Management

1) Redundant & Reliable
   - TCP/IP Networked system
   - High-availability, lower risk through distributed full copies of data

2) Trustable
   - Encrypted storage
   - Immutable, data cannot be altered
   - Access controlled operations

3) Transparent
   - Permissioned DLT only - POA
   - Access to historical records for regulators, aggregators

4

GRIDWISE Architecture Council

Blockchain Abroad

Increasing Momentum Example: California

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

EXECUTIVE ORDER N-9-22

WHEREAS California has the fifth largest economy in the world and is home to the leading technology companies across the country and around the globe; and

WHEREAS California is the global innovation hub for emerging technologies because of the State's unparalleled concentration of research and development, human and venture capital, and creativity and entrepreneurialism; and

WHEREAS past generations of innovation lacked proactive and early engagement by public institutions, leading to unintended social consequences and inequitable benefits across society, as well as governmental attempts to regulate only after business models and interests have solidified; and

...Exploring and establishing public-serving use cases, incorporating blockchain technologies into state operations...

Source: https://www.gov.ca.gov/wp-content/uploads/2022/05/5.4.22-Blockchain-EO-N-9-22-signed.pdf

Market Outlook

- CAGR estimates, **energy industry specific**:
  - 34% 2019-2026 [1]
  - 37% 2018-2026 [2]
- Estimates of energy industry market size:
  - $3B by 2027 [1]
  - $1.6B by 2026 [2]
- Key analyst remarks:
  - Growth expected from reducing transaction costs, energy accountability, trading & grid management

Source 1: https://www.mordorintelligence.com/industry-reports/global-blockchain-market-in-the-energy-sector

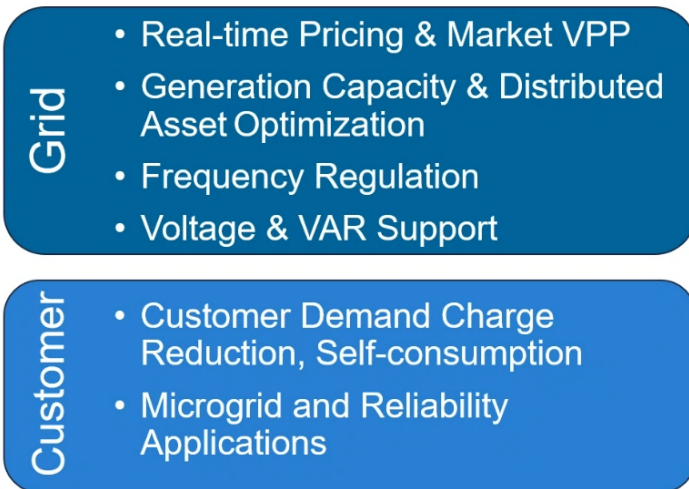Source 2: https://www.fortunebusinessinsights.com/industry-reports/blockchain-in-energy-utilities-market-101776

GRIDWISE Architecture Council

Expanding DER Use Case Benefits

A new technology in the energy domain: DLT

Use Case	...with DLT

Grid
- Real-time Pricing & Market VPP
- Generation Capacity & Distributed Asset Optimization
- Frequency Regulation
- Voltage & VAR Support

Customer
- Customer Demand Charge Reduction, Self-consumption
- Microgrid and Reliability Applications

Grid management tools enabled with near real-time communication to and from DER with a layer of automation:
- Transparent
- Traceable
- Trustable

GRIDWISE Architecture Council

Approach of the Standard Working Group (formed in 2021)

- Evaluate **domains** and **building blocks**
- Define **segmentation to create reference frameworks and architecture**
- Define **terminology**, **ontology and acronyms of the technology**
- Create **interoperability** frameworks, **security** frameworks, **usage guide**
- Research, classify, and validate **use cases**
- Create **functional requirements for semantic interoperability for each use case**
- Define/create **sub-systems**, **key actors** and **interfaces for each use case**

- **Harmonize** with existing and future IEEE and other international **DLT related communication standards within the IoT space that could interact with the energy domain**

GRIDWISE Architecture Council

P2418.5 Interoperability

- **Device**
- **Syntactic**
- **Semantic**

- **Connection**
- **Communication**
- **Meaning**
- **Dynamics**
- **Behavioral**
- Conceptual
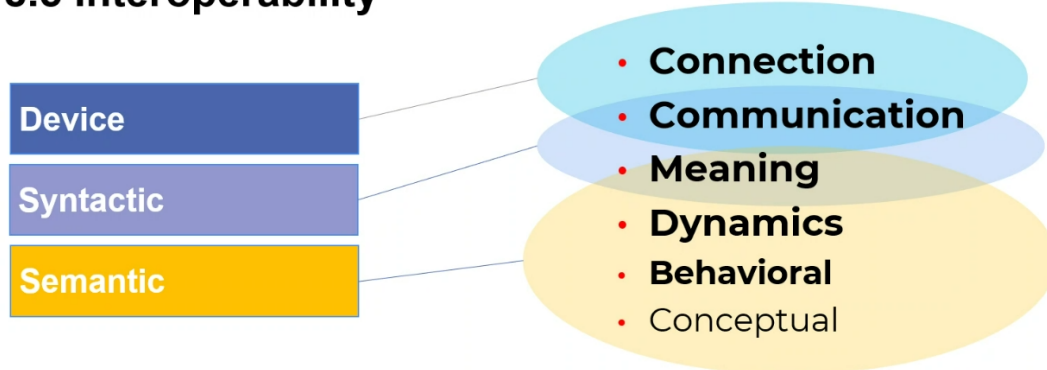
"Blockchain DLT Interoperability" in the **ability of distributed ledger computing systems to interconnect** multiple intra- and inter-DLT blockchain DLT-enabled power and energy systems and sub-systems to **create, transfer, register, and validate:** *digital energy information, services, assets and transactions*, across multiple ledgers in a secure, scalable, trusted and administered consensus approach."

11

GRIDWISE Architecture Council

There are 4 blockchain/DLT domains that can be applied to the power grid and energy market systems.

DLT Operational Technology (OT) - specifies all **processes and transactions** related to grid operations, including all mission critical process control, automation and supervision.

DLT Enterprise Information Technology (IT) - specifies all **processes and transactions** related to the IT enterprise operation, cybersecurity and data management.

DLT Customer-Facing - specifies all **processes and transactions** related to grid-customer interconnections and services.

DLT Market - specifies all **processes and transactions** related to the energy market or other market-based services, including service orchestration.

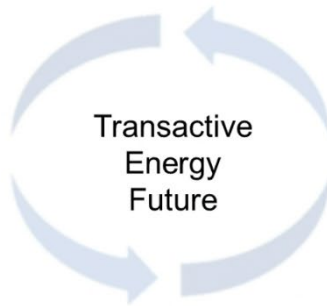**GRIDWISE** Architecture Council
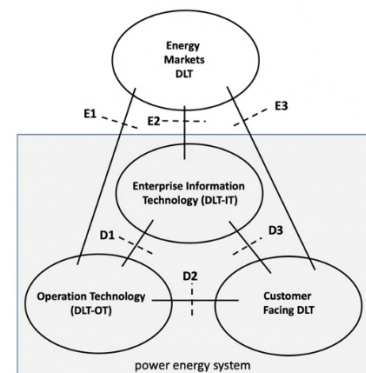
Device Segmentation (non-exhaustive)

ENERGY TECHNOLOGIES
- Renewable Energy Assets
- Grid-Tied Energy Storage
- Microgrid Assets & Systems
- Distributed Generation

TRANSPORTATION TECHNOLOGIES
- Electric Vehicles
- EVSE

Transactive Energy Future

UTILITY TRANSFORMATIONS
- Grid IT/OT, AMI, Sensors
- T&D Sensing, Automation
- Customer Side Devices
- Network Orchestration

BUILDING INNOVATIONS
- Intelligent Building Management Systems
- Smart City Systems

Distributed Ledger Functionality in the system is driven by complex interactions and feedback between stakeholders within these silos

GRIDWISE Architecture Council

Use Case Alignment

Smart Contract Processes & Data Ledgers

Operational Technology (OT)
Grid operations, including attribution of mission critical process control, automation and supervision during events.

Enterprise Information Technology (IT)
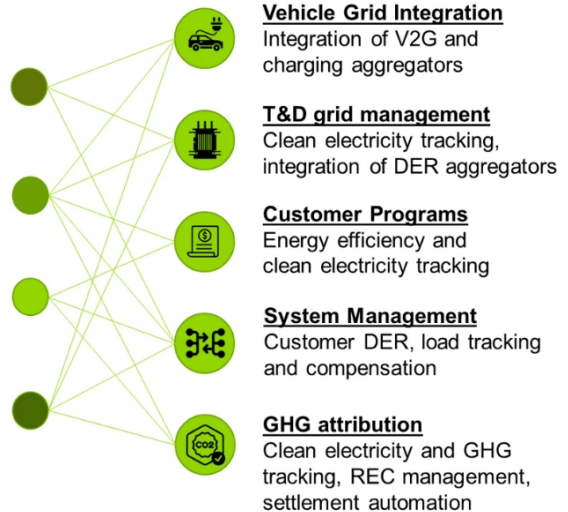IT enterprise operation, cybersecurity and data management.

Customer-Facing
Grid-customer DER interconnections, EE, DR, billing, settlement and ESP services.

Market
Energy market, settlement and market-based services integration, including service orchestration.

Technology-2-Utility alignment

Vehicle Grid Integration
Integration of V2G and charging aggregators

T&D grid management
Clean electricity tracking, integration of DER aggregators

Customer Programs
Energy efficiency and clean electricity tracking

System Management
Customer DER, load tracking and compensation

GHG attribution
Clean electricity and GHG tracking, REC management, settlement automation

Meeting Minutes

Feb. 19, 2025

Q&A

Marc Costa – commented that Shawn's presentation has great style for a documentary type video.

He asked what needs to happen to get this out there.

Shawn answered that there are 3 barriers to proliferation of the technology.

He said first look at how all the departments have to agree with each other. And when does that occur?

Second, it's the technology itself. It's coming off of a shelf of mistrust in the energy industry as a whole because of the amount of energy that mining for a particular kind of peer-to-peer mining that happens in blockchain for finance such as cryptocurrency. It uses a lot of energy. And so that harms it's reputation as a technology by having it so strongly coupled to a single use case in the finance sector.

The last barrier is that you would need a good network out to the edge if you are going to draw these systems together. If you do the use cases that are not related to Grid Edge, then you are OK, you know you want to make rules for how to handle enterprise operations and utility and you know something happens with a data point. It's great for the cybersecurity department in the utility because they can make the rules that they want for smart contracts and monitor the activity of them.

It's great for automation in lots of different ways, but as soon as you start reaching out to the edge, which is really the functional alignment that I propose here, it's good for DER and this new part of our industry economy. He acknowledged that we don't yet have a good network out to the edge and that is a functional barrier.

Volkmar asked about microgrids and mentioned the Brooklyn microgrid which Shawn said he was familiar with. He also noted the challenges using distributed ledgers for DERS in general in the electric industry. He also asked about latency, scalability and overhead and complexity of the system. He commented that there are far too many transactions happening despite distributed ledgers being fast. He expressed doubts that it is the right solution.

Shawn said he wants to call out that the project is the oldest in the industry. It was a proof-of-concept pilot designed for a very specific outcome to do peer-to-peer trading and that particular consensus method that was used and the type of trading that was executed is not the kind that is envisioned at least by this. The standard certainly covers that as a use case; peer-to-peer trading. But there are barriers in the socio-economic system that prevent it from occurring in North America.

He noted that with newer technology such as 4G and 5G at the edge we're certainly up to it with optical networking as a whole and 40 gigabits a second for time domain multiplexing.

Shawn gave more detail about how this could be achieved. He noted that Portland State University is doing is doing some interesting work in this area for unlocking blockchain. He referenced work by Bob Bass, PSU. He said they would have information about these issues and related standards and

architecture. He said we can't get away from complexity noting that the grid is the largest and most complex technology in the world.
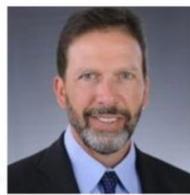
Jaime Kolln confirmed the vote is complete and confirmed the new class:

GRIDWISE Architecture Council

Proposed Class of 2025-2027

Kay Aikin

Ron Bernstein

David Forfia

Yashar Kenarangui

Matthew McDonnell

Mark Ortiz

Meeting Minutes

Feb. 19, 2025

GRIDWISE Architecture Council

AHR Expo
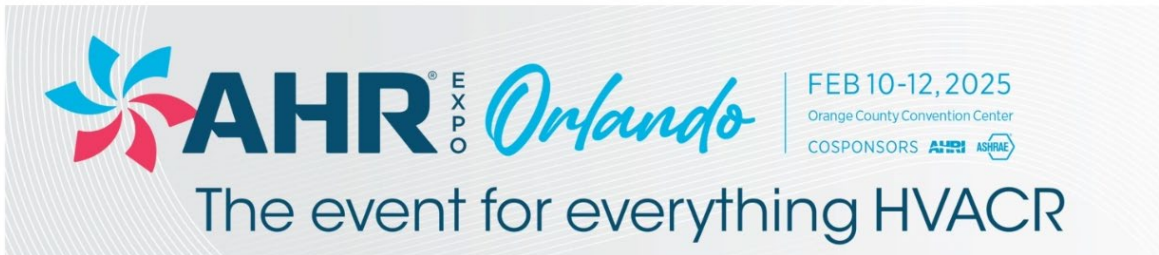
GWAC Presents: Impacts of Building Decarbonization & Electrification on the US Power Grid
Hosted by GridWise™ Architecture Council (GWAC)

Monday, February 10, 2025, at 4:30 PM - 6:00 PM
Room W312AB

This seminar will provide the audience with a comprehensive understanding of the US power grid architecture principles & how the changes in the built environment are impacting grid services. We will discuss the impacts of decarbonization and electrification on the grid and the impacts of growth of distributed energy resources (solar, wind, micro and nano grids). Attendees will learn from experts in the design and implementation of smart building management systems that have the ability to directly integrate with grid services, incentives, and AI applications.

Jaime and Ron Ambrosio talked about the GWAC panel presentation at the AHR Expo. There were at least 25 attendees. They had the last time slot of the day. After the presentation there were many good questions, and the audience was very engaged. The Q&A went on for 45 minutes.

The dinner was a no host GWAC Event with representatives from the Design Lights Consortium.

Meeting Minutes

Feb. 19, 2025

The tentative plan is to hold the Face to Face in the morning on Monday, Sept. 8, and then the Tutorial in the afternoon.

Please let Jaime know if you are interest in participating.

Forfia said housing is open and encouraged attendees to make your reservations now.

GRIDWISE Architecture Council

GWAC Face to Face Meeting Schedule

- Las Vegas, @ RE+ the morning of September 8th

- April? (14th – 17th IEEE Energy and Policy Forum, DC) * Limited availability
  - Other dates to consider: April 21-26, April 28-May 2?

- PNNL?

- NARUC Meeting schedule

Marc Costa said he is not available on Monday April 21.

Friday, May 2 won't work for Ron Ambrosio.

Jaime suggested a meeting at PNNL for the week of April 22-26.

Aaron said that is right before Easter.

Ron Ambrosio said the group will need to visit the Atomic Pizza brew pub.

GRIDWISE Architecture Council

"Next Big Thing" / "Back from the Future"

- Originally presented at AHR Expo 2024

- Ron Ambrosio and Rahul Bahadur are leading a committee to develop a webinar on "The Next Big Thing"
  - Rahul Bahadur and Ron Ambrosio Updates
- Next Steps
  - Development of a concise slide deck
  - Draft presentation will be reviewed by GWAC
  - Web Page with details including GWAC activities

All comments have been incorporated. Ron A stayed with 3 D's which is more consistent with previous work products and materials. We can still have an honorary "4th D for digitalization. The final version is downloaded on the GWAC site under work products, and then under "Back to the Future." It says "for review" in the file name. Ron and Rahul are looking for feedback from the GWAC. Once the feedback has been reviewed and changes incorporated it will be ready for publication.

Action: find the file and send out with a request for feedback.

Meeting Minutes

Feb. 19, 2025

GRIDWISE Architecture Council

Grid Architecture for Regulators

- **Team members: Lorenzo Kristov, Kay Aikin, Larisa Dobriansky, Jeff Morris, Mark Paterson, Farrokh Rahimi, Chris Villarreal, Ron Bernstein, new: Peter Fitzgerald, Marc Costa, Shawn Chandler**

- White paper will be aimed primarily to GWAC community:
  - Document experiences, observations & lessons learned from the use/non-use/value of Grid Architecture in policy & regulation venues
  - Provide a basis for strategies to promote Grid Architecture among policy makers
  - Paper will be a living document, starting with a few initial case studies and adding new case studies as available

- Initial case studies
  - U.S. — FERC Order 2222
  - State — Xcel Minnesota rate case; CPUC High-DER docket
  - Municipal — Portland Maine
  - International — Ontario, Canada

- Tentative target date: Someday in the future…

Marc Costa has been leading this group. They meet every two weeks. They have had some very engaging discussions. They have found some practical applications for the material.

Meeting Minutes

Feb. 19, 2025

GRIDWISE Architecture Council

Applying Grid Architecture Concepts to Bridge Back from the Future Grid

Building on the previous GridWise Architecture Council work products, this document attempts to provide a rational roadmap for operators, planners, developers, integrators, and policy makers to explore a Bridge Back from the Future approach as guidance to develop transition plans interoperable systems that will architect the grid of the future as described in the future states. This paper will include discussions of motivating participation of customer owned assets and opportunities for avoided costs by working toward a long-term vision rather than only short-term needs. This document will be completed in FY25.

Schedule: 1) Mark currently editing based on committee's input in last meeting
2) Next meeting canceled
3) Revised Draft version 2- available for March 6th meeting

- Committee : **Mark Paterson**, Marc Costa, Ron Ambrosio, David Forfia, Kay Aikin, Lorenzo Kristov, Farrokh Rahimi, Aaron Snyder, Shawn Chandler, Nicholas Domich

- 2:00 PM PT/ 5:00 PM ET Thursday 2 times 1st and 3rd Thursday of the month

29

Kay and Mark Paterson met on Monday and looked at recent feedback comments.

Mark is halfway through org the entire paper; he's identified some structural problems. He found some redundancy. He is reorganizing the paper to follow the original intent. They hope to have the revisions complete in time for the March work group meeting.

Then they will start revising the version draft. Kay has about 32 pages, but the structure has changed, and much content will come out. The plan is for it to get down to 32 pages.

March 6 the next work group meeting, and anyone interested can still join this group.

Dave Wollman put in the chat a couple of minor grammar edits.

GRIDWISE Architecture Council

Grid Architecture Concept Model for Transportation Electrification

Analyze various visions of the electrification of fossil fuel-based systems and identify areas where GWAC concepts could provide architectural value to bridge and coordinate between customer and grid objectives. Electrification will introduce dependencies such as those seen in the transportation sector due to electrification. Grid Architecture will be used to describe the touchpoints (for example through sector coupling) that will require collaboration. GMLC reference cases will be included. This activity will take place in FY24 and be completed FY25.

- 15-20 page whitepaper
- Committee: Jaime Kolln, Ron Cunningham, Farrokh Rahimi, Mark Ortiz, David Forfia, Aaron Snyder, Lorenzo Kristov, Bhaskar Mitra, Paul DeMartini, Shawn Chandler
- 1:00 PM PT/ 4:00 PM ET, 2nd and 4th Tuesday of the month

Ron Cunningham said they are meeting bi-weekly and are now reviewing potential papers and use cases. They are going through material and finalizing the paper. Assignments are out and they will meet next week. They are discussing the model that they will use and business cases that Stacy gave them to try.

Meeting Minutes

Feb. 19, 2025

GRIDWISE Architecture Council

Liaison Reports

- NIST – David Wollman
- Green Button – Jeremy Roberts
- EPRI – Sean Crimmins
- IEEE PES – Farrokh Rahimi
- ASHRAE, DLC (Design Lights Consortium) – Ron Bernstein
- ISO/IEC, IREC – Ken Wacks
- SEPA – Aaron Smallwood
- NARUC – Jeff Morris

- *Are there other organizations we should be hearing from?*

Dave Wollman - NIST – Dave put a note in the chat that the NIST newsletters are online. He hoped to get one out today but there is a new process to review for certain topics before releasing. He is hopeful that it will be released soon.

There are some new directors at NIST that will take over the agency. The person who is at the top has some past experience with NIST and is reasonably supportive.

NIST newsletters (Smart Connected Systems Division Newsletters) https://www.nist.gov/ctl/smart-connected-systems-division/smart-connected-systems-division-newsletters

New acting NIST director: https://www.nist.gov/people/craig-burkhardt

 David Forfia for SEPA: Ron Ambrosio and David Forfia will be at the Research Advisory Council meeting tomorrow. They will help with the value proposition for it.

Ron Cunningham will be at the SEPA RAC meeting tomorrow also. They are working on new capabilities. They are bringing in another entity into SEPA that is not yet announced but should bring new opportunities.

Meeting Minutes

Feb. 19, 2025

Ken Wacks – ISO/IEC - Final votes are coming in on our interoperability standards including lexicon and event coding. They are receiving technical and editorial comments on standards for vehicle to home network connections.

They have four standards in process currently.

ISO/IEC will host a Virtual meeting series beginning April 7, 2025.

For anyone interested in getting involved with ISO/IEC, the goal is to use standards to promote international trade.

IREC – the Interop Renewable Energy Council, the customer grid edge committee is scheduled to meet Feb. 28, 2025. The topic is the Colorado Renewable Energy Cooperative, a prosumer owned virtual power plant. The meeting is the Customer Grid Edge meeting on Friday, Feb 28, from 1:30pm 3:00pm eastern on the 28th . It is free to attend.

To sign up by next Tuesday search on IREC CGE and there is a place there to sign up so you will get the meeting announcement or contact kenwacks.com

David Forfia noted that he will not be able to attend the GWAC meeting on March 19.

Jaime Kolln has asked EPRI if they might have a new liaison for the GWAC.

Farrokh Rahimi had a scheduling conflict today.

Jaime Kolln asked if there were any comments under new business. There were none.

Jaime encouraged the two new GWAC members to get involved with the work groups. Let the group lead know or reach out to Jaime or Chair Ron Bernstein for more information.

March 19 is the next GWAC meeting.

Kay cautioned that IEEE Microgrids is a conflict for the proposed GWAC F2F in April.

Meeting Minutes

Feb. 19, 2025

GRIDWISE Architecture Council

Upcoming GWAC Meetings

Date	Topic or Speaker	Format	Other
February 10th–11th, 2025	GWAC Tutorial at AHR Expo in Orlando FL; 4:30pm – 6:00pm, Room W312AB		
February 19th, 2025	Monthly GWAC	Virtual	Teams
March 19th, 2025	Monthly GWAC	Virtual	Teams
April 16th, 2025?	Monthly GWAC	Virtual?	Teams

GRIDWISE Architecture Council

Adjourn

Next GWAC Virtual Meeting: March, 19, 2025

https://gridwiseac.org/