Meeting Minutes

June 24, 2015

Members

Ron Ambrosio, IBM T.J. Watson Research Center
Ron Bernstein, Ron Bernstein Consulting Group, LLC
David Forfia, Electric Reliability Council of Texas (ERCOT)
Mark Knight, CGI
Ken Wacks, consultant to Sensus Metering Systems Inc.

Members Not Present

Gerald Grey, Electric Power Research Institute (EPRI)
Doug Houseman, EnerNex
Mark Kerbel, REGEN Energy Inc.
Stephen Knapp, Power Generation Services, Inc.
James Mater, Quality Logic
Heather Sanders, CA-ISO
Tom Sloan, Kansas State Legislator
Carl Zichella, Natural Resources Defense Council

Associates

Gordon Matthews, Bonneville Power Administration
Farrokh Rahimi, OATI

Members Emeritus

Erich Gunther, EnerNex, Inc.

Support – Pacific Northwest National Laboratory (PNNL)

Sherry Kowalski, PNNL
Ron Melton, PNNL

Speakers and Guests

Ali Apakchi, OATI
Ed Caxalet, TeMix, Inc.
Bill Cox, Cox Associates, Inc.
David Katz, Sustainable Resources Management
Larry Lackey, Coergon Group, LTD
Dave LeVee, PwrCast, Inc.
Dan Lubar, Relay Services
Paul Hickman
David Holmberg, NIST
Tim Schoechle, International Center for Standards Research
David Wollman, NIST

Administrative

Welcome and Administrative Business
Ron Melton, GWAC Administrator

David Forfia called the meeting to order at 10:06AM

Ron Melton reviewed the agenda and read the proprietary information disclosure policy according to the bylaws to the GWAC members and guests

Review of Action Items
Ron Melton, GWAC Administrator

- Doug Houseman is to send out a Doodle Poll for the Emergency Response Work Group to find a good date to reengage the group / meetings – No update provided
- Doug Houseman and Eric Gunther to continue to work on the effort to have the Interoperability Context Setting Framework as an IEEE technical document – Ongoing / no update provided
- Continue to work on the GWAC Interoperability Context Setting Framework as an ISO/IEC Standard effort – Ken Wacks provided report later in meeting
- Doug Houseman has made the initial contact with IEEE PES for possible sponsorship for the 2016 Transactive Energy Conference – Completed
- Review and prioritize the list of possible affiliations for the Transactive Energy Conference - Ongoing
- Ron Melton and Carl Zichella to gather research documentation for the TE Decision Maker's Checklist – To be scheduled
- Draft TE Decision Maker's Checklist to be mailed out to the Council the Friday prior to the June meeting – Work on this task will be accelerated in July and August
- Ron Melton and David Forfia to get clarification on the Grid 3.0 GWAC assignment and timeline – Ron Melton provided a report later in the meeting
- Start TEC 2016 committees and further discuss the conference name - Committees have been established, and planning and program meeting scheduled for July
- Look in to possible locations for F2F meeting for September – Gordon Matthews at BPA, PNNL, or impromptu meeting in November at SGIP - Ongoing

Calendar Review
Ron Melton, GWAC Administrator

GWAC 2015 Web Meetings:
- July 15, 2015, 10AM-12PM Pacific
- August 26, 2015, 10AM-12PM Pacific
- Current web meetings are scheduled for 10 AM on Wednesdays
  Action: Sherry Kowalski will send out a Doodle Poll to see if there is a more agreeable time for all members to attend

GWAC Face-to-Face Meetings:

- September Meeting and Workshop was discussed later in web meeting
- Possible meeting may be scheduled in the November/ December time-frame Discussion continued on the possible dates and venues that would be agreeable for the Council

Action: David Forfia to coordinate a possible meeting space in conjunction with the SGIP Winter Meeting

GWAC Events:

- July 7-8, Valuation of TE Systems (invitation only) PNNL - Richland, WA
- July 26-30, IEEE PES General Meeting – Denver, CO
- Sept. 10, TE Challenge Kickoff – at NIST
- Grid 3.0
- May 17 - 19, 2016 - 3nd Transactive Energy Conference, World Trade Center, Portland Oregon

GWAC Business, Conference and Event Planning

Future GWAC Face-to-Face

Ron Melton opened up discussion with the Council to identify a possible date and meeting host for the September face-to-face meeting and workshop. The Council decided on September 29-30 as the meeting date. Meeting location was narrowed to ERCOT in Taylor, Texas, or IBM in Yorktown Heights, New York.

Action: David Forfia and Ron Ambrosio to check availability with ERCOT and IBM, and report back to Ron Melton and Sherry Kowalski

GWAC Associate Nominations

July is the month when GWAC members may nominate individuals to be GWAC Associates. GWAC Associates are individuals who work closely with the Council and actively participate in Council meetings and initiatives.

The privileges of GWAC Associates are:

- Listing as a GWAC Associate on the Council's web site
- Allowed to cite their association with the Council
- May speak on behalf of the Council with advance notice to and concurrence of the GWAC Administrator

Nomination Process:
- Nominations are accepted during the month of July. The Council will discuss the nomination and vote on accepting the individual as an Associate Member. The term of membership is one year and may be extended by re-nomination and a vote of the Council. There is no limit on the number or nominations. The Council collectively selects new Associates.
- The criteria for Associate Membership are:

- o Active participation in council activities for at least one year prior to the nomination. Active participation in council activities includes:
    - ▪ Council initiatives such as working groups
    - ▪ Attendance at Council meetings
    - ▪ Technical or other background with skills and experience that is consistent with the purposes of the Council
- Current GWAC Associates
    - o Gordon Matthews
    - o Farrokh Rahimi

Action: Council members were asked send Associate nominations to Ron Melton and Sherry Kowalski no later than July 31, 2015. Nominations list will be circulated to the Council via e-mail and the vote done either via e-mail or during August web meeting.

GWAC Funding Model

- Current funding model – DOE provides funds to PNNL to support the work of the council
    - o Project management
    - o Meeting planning and coordination
    - o Document creation, coordination, editing, release
- Need to explore alternative models
    - o Project focused engagements (such as the TE Valuation activities)
    - o Proposals for support from other entities

GWAC needs 3 Council volunteers to work with Ron Melton and David Forfia on this in July. The work would include 2 or 3 phone calls / web meeting discussions. Ron will document the results for DOE and for discussion at a future face-to-face meeting.

Action: Council Members interested in volunteering were asked to contact Ron Melton via email.

2016 Transactive Energy Conference Planning Kickoff

Plan to begin for the 2016 Transactive Energy Conference. Portland General Electric has generously offered host the venue again at their World Trade Center facilities in Portland.

- Dates: May 17 – 19, 2016
    - o 3 days were reserved to allow for possible expansion of the TEC program
- Organizing committees were formed and meetings will begin in July. **Action:** Sherry Kowalski to create TEC Organizing and Program Committee meeting invitations starting in July.
- Committees:
    - o TEC Organizing Committee Members:
        - ▪ Ron Melton
        - ▪ James Mater
        - ▪ Ken Wacks
        - ▪ Stephen Knapp
        - ▪ David Forfia

- Ali Apakchi
  - o Program Committee Members:
    - Ron Melton – Chair
    - Ron Bernstein
    - Mark Kerbel
    - Mark Knight
    - James Mater
    - Gordon Matthews
    - Terry Oliver
    - Farrokh Rahimi
    - Marty Rosenberg
    - Chris Villarreal
    - Carl Zichella

- Meeting theme and objectives:
  - o Modify name to "Transactive Energy Systems" Conference and Workshop
  - o Possible theme – The Elements of Transactive Energy
    - Principles
    - Guiding Architectural Principles
    - Attributes
    - Layers
  - o Keeping Facilitated Workshop Structure
- Below is a suggested planning timeline presented by Sherry Kowalski.

Date to be Completed	Task / Activity
April 2015	Date, venue, and TEC Planning Committee chosen
April 2015	Agree on venue - Portland World Trade Center
April 2015	Establish date
May 2015	Establish Program Committee
July 2015	Establish theme and objective
Nov 2015	Identify and contact external presenters and keynote speakers
Oct 2015	Determine the budget and registration fee
Oct 2015	Identify sponsorship goals and potential sponsors
Oct 2015	Develop communications plan, marketing materials and conference website

Sept 2015	Begin outreach to educational institutions, corporations, government and industry for support and patronage
Oct 2015	Develop technical program by determining topic areas, format and types of technical papers. Establish abstract submission, author notification and final paper submission deadlines.
Nov 2015	Establish Call for papers - Update conference website with a page/link about CFP information - Promote Call for Papers (CFP) and exhibit prospectus at current year's conference, if applicable
Nov 2015	Launch registration site
Feb 2016	Complete paper review process. Finalize technical program. Notify speakers.
TBD	Deadline for early registration (predetermined date)
April 2016	Complete & print final program, advertising/publicity and registration reminders
May 17-19, 2016	3rd International Transactive Energy Conference

A list of possible endorsing organizations gathered at the May face-to-face meeting is listed below.

- CABA, Continental Automated Building Association
- AEE, Association of Energy Engineers
- ASHRAE, American Society of Heating, Refrigerating, and Air-Conditioning Engineers
- CCET, Center for Commercialization of Electronic Technologies
- CEA, Consumer Electronics Association
- CEC, California Energy Commission
- CSG, Council of State Government
- ICEBO, International Conference for Enhanced Building Operations
- IEA, International Energy Agency
- IEEE, Institute of Electrical and Electronics Engineers
- IETC, International Energy Technology Conference
- ISGAN, International Smart Grid Action Network
- ISO/RTO Council
- NARUC, National Association of Regulatory Utility Commissioners
- NASEO, National Association of State Energy Officials
- NCSL, National Conference of State Legislatures
- NEMA, The Association of Electrical Equipment and Medical Imaging Manufacturers
- NRECA, National Rural Electric Cooperative Association
- NRDC, National Resources Defense Council

- SGIP, Smart Grid Interoperability Panel
- WECC, Western Electricity Coordinating Council
- WSEB, Western State Energy Board
- Academia
  - Texas A&M University
  - University of Illinois at Chicago
  - University of Minnesota (Massoup Amin)
  - Washington State University
  - University of California, Berkeley
  - IIC, International Institute for Conservation
  - Stanford

Technical and Policy

Mutual Assistance / Emergency Response

Ron Melton GWAC Administrator

No new progress to report. Recap: A GWAC working group on mutual assistance and emergency response has been created to survey the landscape to see what type of inputs GWAC might be able to provide in this industry discussion. Doug Houseman has created a charter and is currently seeking involvement from other sources. A small core team is now meeting via phone on Friday every other week, which includes Doug Houseman, Ron Ambrosio, Mark Knight, and David Forfia. Nine (9) high level use cases circulated for discussion to GWAC. The group has an initial draft of use cases – anyone is invited to review, edit, discard, update, and create on the document. Group is now working on extracting key interoperability messages.

Grid 3.0 and TE Challenges Meeting Recaps

Erich Gunter reported that the Grid 3.0 workshop was very successful. Planning has begun for the workshop and NIST is hoping to get as many return participants as possible. Erich Gunther recommended keeping updated with the group that is coordinating the NIST 3.0 activity.

Ron Melton will forward the Grid 3.0 meeting invitation out to the GWAC mailing list.

The TE Challenge meeting was also successful and there will be more information to come in the near future. The TE Challenge will be announced in July to engage universities through the coming academic year.

Transactive Energy

David Forfia, GWAC Chairman

Transactive Energy Decision Maker's Checklist Update

Mark Knight, GWAC Chairman Emeritus and Ron Melton, GWAC Administrator

- Work has started (slowly)
- Mark Knight and Ron Melton creating initial draft
- Using OATI workshop material to create two main sections
- Focus on overview plus business/operational objectives
- Questions organized around categorizations in the TE Framework
- Potential to evolve into a maturity model

Transactive Energy Valuation Workshops

Abhishek Somani, Pacific Northwest National Laboratory and Ron Melton, GWAC Administrator

- PNNL has DOE-OE/EERE tasking for transactive systems "valuation"
- Valuation applies both to individual services and to transactive systems broadly
  - E.g., how does one value subjective, qualitative elements such as comfort in a building so one can transact on comfort?
  - What is the value of a transactive system?
    - To the power grid?
    - Within a building control system?
    - Between building(s) and power grid?
- Part of project is engaging stakeholders – will do so under GWAC banner
- Two Transactive Systems Valuation workshops are planned for this fiscal year:
  - Workshop 1 (invitation only) – to identify potential collaborators in industry, labs and academia
    - PNNL, July 7 and 8
    - Council members attending invited include David Forfia, Carl Zichella, James Mater, and Gordon Matthews
  - Workshop 2 – usual GWAC F2F meeting workshop
    - Focus based on outcomes of July meeting
    - Location and dates TBD (action for this meeting)

NIST Transactive Energy Challenge Update

David Holmberg, NIST and Ron Melton, GWAC Administrator

- David Holmberg is organizer of the Challenge
- Kickoff meeting: Sept. 10, 2015 at NIST
- Scope summary
  - Modeling and simulation environments for development and/or evaluation of transactive energy systems
  - Advancing transactive energy systems
  - Collaboration website being set up
  - Currently working on further definition of the challenge, scenarios for application of transactive energy systems, relationship to standards, etc.

- o   Need to include one or more sessions related to mid-course reports on transactive energy
- o   Challenge results at the Transactive Energy Systems Conference in May 2016

Action: Sherry Kowalski to circulate the NIST Transactive Energy Challenge URL and information.

NIST Grid 3.0 Update

- Organizing committee has become the "leaders" committee
- Weekly calls continue
- The Committee is prioritizing areas for action (Future State Needs) using a survey of meeting attendees
- The goal is to build a matrix of interests, capabilities, etc. for stakeholder organizations, e.g., GWAC, DOE OE, DOE EERE, EEI, EPRI, etc.

GridWise Architecture Council Interoperability Context-Setting Framework

ISO / IEC Standard Update

Ken Wacks, GWAC Member

ISO / IEC Committee Experts agreed without objection to ask the Member Nations to approve GridWise Interoperability Context-Setting Framework as an ISO/IEC technical report without changes.

Ken Wacks prepared the New Work Item Proposal form, which has been sent to the ISO/IEC member nations for approval. Vote closes August 27, 2015.Ken Wacks encouraged all Council members to reach out to their international colleagues to endorse the GridWise Interoperability Context-Setting Framework.

Mutual Assistance/Emergency Response Discussion

Background:
- Nine (9) high level use cases circulated for discussion to GWAC
- Group has an initial draft of use cases – anyone is invited to review, edit, discard, update, create on the document
- Group is working on extracting key interoperability messages

No new business to report

Liaison Reports

Smart Grid Interoperability Panel - SGIP

- SGIP Strategic Planning Session had a considerable amount of discussion on the Interoperability Maturity Model

ISO/IEC

- ITU working on web of things
    - General standards on how to connect everything
- New Korean proposal related to Internet of Things (IoT)
    - Specification for a broker function in a gateway between the Internet and homes and businesses to filter IoT commands
    - Addresses security and privacy
    - Will be considered for an international standard by the ISO/IEC working group that Ken chairs

Air-Conditioning, Heating, Refrigerating Exposition - AHR Expo

- GWAC will continue to endorse this year's conference in Orlando, FL
- The room block is available for the Orlando AHR Expo; the Council was encouraged to book their rooms early

Industrial Internet Consortium - IIC

- General Electric is hosting the July 15-17 meeting at GE Research in New York; details can be found on the IIC website

CEA

- Group R17 has two committees working to develop a lexicon of interoperable definitions targeted to home automation device profile

New Action Items

- Sherry Kowalski will send out a Doodle Poll to see if there is a more agreeable time for all members to attend GWAC web meetings
- David Forfia to coordinate a possible meeting space for a GWAC face-to-face meeting in conjunction with the SGIP Winter Meeting
- David Forfia and Ron Ambrosio to check availability with ERCOT and IBM, and report back to Ron Melton and Sherry Kowalski
- Council members were asked to send Associate nominations to Ron Melton and Sherry Kowalski no later than July 31, 2015
- Council members interested in volunteering to assist with a possible GWAC funding model were asked to contact Ron Melton via email
- Sherry Kowalski to create TEC Organizing and Program Committee meeting invitations starting in July

- Sherry Kowalski to circulate the NIST Transactive Energy Challenge URL and information

Adjourn

Ron Ambrosio moved to adjourn the meeting, Mark Knight seconded the motion and the meeting adjourned at 11:51AM