

Meeting Minutes November 16, 2011

Members

Ron Ambrosio, IBM T.J. Watson Research Center
Rik Drummond, Drummond Group
Alex Levinson, Lockheed Martin
Ken Wacks, consultant to Sensus Metering Systems Inc.
Erich Gunther, EnerNex Corporation
Tracy Markie, Engenuity
Robert Burke, ISO New England
Wayne Longcore, Consumers Energy
Tom Sloan, Kansas State Legislator
Tony Giroti, BRIDGE Energy Group

Support – Pacific Northwest National Laboratory (PNNL)

Ron Melton, GWAC Administrator
Todd Halter, PNNL
Sherry Kowalski, PNNL

Speakers and Guests

Mark Knight, Grid Applications
Gerald Fitzpatrick, NIST
Brian Leane, Strategic Initiatives SRA International

Leonard Tillman, Balch & Bingham LLP
Gordon Matthews, BPA
Ron Vader, dteenergy
Jim McGhee, RuggedCom, Inc.
Sharon E. Dinges, Trane-Ingersol Rand
Mike Coop, Echelon
John Bellacicco, First Solar
Erik Gilbert, Navigant Consulting
Dave Wollman, NIST
Catherine Weldon, Weldon Consulting
Ray Palmer, NIST

Members – not present

Ward Camp, Landis + Gyr
Amr Ibrahim, Ohio Consumer Council
Bob Saint, NRECA

Members Emeritus

Richard Schomberg, EDF
Dave Hardin, EnerNOC, Inc

Proprietary Information Notice

Ron Melton read the proprietary information disclosure policy according to the bylaws to the members and guests.

Administrative Business

Erich Gunther

Ron Melton called the meeting to order at 10:00 a.m.

Ron Melton reviewed the agenda, discussed the changes, and asked for any additions.

Minutes from the face to face meeting that was held on October 20-21, 2011, were presented to the council via e-mail and comments were received from Ken Wacks. Robert Burke moved to approve the minutes with the recommended changes, Ken Wacks seconded the motion. The minutes from October were approved.

Ron Melton reviewed the calendar for GWAC meetings and the upcoming outreach dates:

Upcoming Events:

- **November 8-10, 2011:** Global Forum Week
- **December 5-8, 2011:** Grid-Interop 2011
- **January 15-18, 2012:** IEEE PES SGT Conference
- **January 16-18, 2012:** GridWeek Asia
- **February 5-8, 2012:** NARUC Winter Meeting
- **March 27-29, 2012:** Possible TEW Dates
- **May 21-24, 2012:** Connectivity Week

Grid Interop & Boot camp Planning

Ron Melton & Todd Halter, PNNL

Todd Halter provided a quick planning update and discussed the preparations for the five, ninety minute boot camps. The boot camp schedule, confirmed leaders, and speaking assignments are listed below.

Monday:

- **SGIP 101 - Stuart McCafferty**
Stuart McCafferty will be leading the SGIP boot camp and requires no participation from the council.
- **Interoperability for Regulators - Robert Burke**
The Regulators Boot Camp is targeted for regulators with the expectation to provide a better understanding of GWAC and interoperability. Robert Burke will coordinate and is planning to update the GridWeek 2010 presentation by focusing on the GWAC Decision Makers Check List. The boot camp will include two examples that apply to the Decision Makers Check List and will spend time walking the regulators through examples. Ken Wacks volunteered to assist with this task.
Ron Melton asked that the boot camp include open dialogue with the participants on the needs from the regulatory community from understanding interoperability and/or further tools.
Erich Gunther will provide a target audience list.

Tuesday:

- **Architecture 101 - Erich Gunther**
Stephan Amsbary will be speaking and is currently working on the PowerPoint presentation.
- **Interoperability 101 - Ron Ambrosio**
Draft of presentation has been submitted. Ron Melton suggested some of the materials created for the Interoperability 101 and Architecture boot camps will feed into the university outreach activity.

- **GWAC 101 - Dave Elve**
Draft of presentation has been submitted. Todd Halter will contact Dave Elve and ask him to include the 3 Interoperability Benefit papers in his presentation.

Todd Halter continued to review the final Grid-Interop agenda and assignments by day with the council.

Tuesday:

- Opening Comments
 - SRP/APS or other local dignitary giving a welcome to Phoenix.
- Erich Gunther
 - GWAC Update & Constitution
 - Journey of Interoperability, leading to implementation
 - What have we done for you lately
 - Walking through the Interoperability toolbox
- Plug-In Kickoff Roundtable
 - Vint Cerf (Moderator)
 - Utility - Simmins (EPRI)
 - Vendors - Hodges (Tendril)
 - Standards - Booe (NAESB) and Bienert (Open ADR)
 - Government - Arnold (NIST)
 - Green Button - Makoui (PG&E)
- Plug-In Intro & kick-off – Led by Erich Gunter

Wednesday:

- Opening Keynote
 - Lauren Azar is confirmed speaker
- Aneesh Chopra Green Button Video
- Green Button Roundtable
 - OSTP - Nick Sinai
 - Vendor/Innovator
 - Consumer Advocate
 - Regulator
 - Utility - Lee Krevat

The council suggested having a representative from the consumer perspective present. Ron Melton and Todd Halter plan to follow-up discussion with Anto regarding GWAC presentation on the Greenbutton Roundtable. Ken Wacks agreed to participate in the roundtable.

- Foundational Session (IMM)
 - Steve Widergren (Moderating)
- Utility Business Prop Panel
 - Bob Saint – Moderator
 - Silicon Valley Power
 - AEP
 - SRP (Exec level leadership on SG)
 - PECO
 - Co-Op
 - APS
 - Texas utility

- Bill Waugaman - DOD SPIDERS
 - SPIDERS are the efforts within DOD in applying micro grids and nano grids in operational missions. This should be an interesting view of the technologies applied in the parts of the world that GWAC doesn't deal with.
- GWAC Paper recognitions
 - Ron Melton asked each track lead to review all papers for their track and to work with at least one other person in the review process to identify the top two papers. The papers need to be consistent with being relevant to the discussions within the use of the GWAC efforts and addressing interoperability. GWAC will present one award for each track. A second paper is identified as an alternate.

Thursday:

- Lunch
 - Pat Miller
- Closing
 - Marc Spitzer
- SGIP
 - GB results
 - Report on SGIP activities
- Utility Implementation Panel
 - Matt Wakefield (EPRI) – Moderator
 - Gary Stuebings – Duke
 - Utility SG practitioners attending Grid-Interop
- Plug-In wrap-up by Erich Gunther

Plug-In 2011 Planning

Erich Gunther, EnerNex Corporation

Erich Gunther provided an update on the plug-In activities. Active participants include:

- Akuacom/Honeywell
- Quality Logic
- Silver Spring
- Emerson
- KEMA
- Tendril
- RuggedCom
- Cisco

There are three demand response scenarios including residential products and solutions, commercial, and industrial. The Plug-In will showcase the interoperability of devices that monitor, protect, and control modern transmission and distribution systems; IEC 61850 based demonstration. There will be a testing corner to demonstrate meaningful programs that provide confidence in technology evaluation. Also included is enhanced cyber security featured for the electric utility control system. There will be several other participant based demonstrations including Green Button.

The technical scenarios continue to evolve and the details are being finalized.

Additional features of the Plug-In will include:

- Wireless and Wired Network for Plug-In designed and going through final trials at EnerNex Smart Grid Labs
- Networking equipment and support from RuggedCom
- Graphics from participants nearing completion
- Plug-In speaker schedule being finalized
- Participant led briefings on the technical scenarios held during higher floor traffic time slots
- Video displays planned
- Press releases on the events issued in the past week from Clasma and EnerNex
- Plug-In setup in Phoenix begins Sunday, 12/4 at noon; Plug-In open to Grid-Interop registrants mid-afternoon on Tuesday, 12/6

GWAC Outreach – Slide Deck Review and Outreach Tool Kit

Erich Gunther, EnerNex Corporation

An email was distributed prior to the meeting which included the latest GWAC presentation produced by Ron Ambrosio from October, 2010. Erich Gunther asked if the council had an opportunity to review the presentation and for feedback. The purpose of updating the presentation is to create a quick and easy presentation that any council member can easily access and use to give outreach presentations.

Discussion continued about outreach tools:

- Tenets and Illustrations document
- Interop Framework
- Decision Makes Checklist
- Three Value of Interop Whitepaper

Erich Gunther discussed the need for GWAC to be proactive and look for opportunities to re-socialize the Interoperability Constitution and also actively seek out input for the GWAC vision document. It was then suggested we create a specific location on SharePoint for outreach assignments.

Upcoming outreach opportunities:

- UCAlug Meeting in Austin, Texas
- NARUC regional meetings

Ken Wacks commented that the council should focus on strategy in the opening slides rather than activities related to the creation of standards. GWAC should position themselves as the group that does strategic thinking because it's consistent with GWAC messaging.

The emphasis on slide 3 is on improving the reliability and availability of the grid dealing with limitations with programs like demand response. One of the issues is the proliferation of distributed energy resources that aren't as easily managed. This is where smart grid is essential to provide more communication to help manage thousands of generators as weather changes.

Ken Wacks suggested more graphics and less text to provide a greater impact.

Tony Giroti suggested including the value GWAC has to the smart grid community.

Ron Ambrosio volunteered to take the existing presentation and do an update. Ron Ambrosio will connect with Dave Elve to update and produce a new short GWAC 101 presentation slide to be used at Grid-Interop. Ron Ambrosio will also contact Ken Wacks to incorporate Ken's suggestions and comments.

University Outreach/Curriculum Development Status Update

Ron Melton, PNNL & Catherine Weldon

The University Outreach survey results were emailed to the council members to review prior to today's meeting. Catherine Weldon provided a summary of the results, the current opportunities available, the risk on not creating curriculum, and her recommendations for a strategy.

The opportunities discussed included:

- Design and develop quality multipurpose webinar reusing existing GWAC materials and integrating newly created video segments
- Explain GWAC mission, application of principles, and case studies
- Market to a significant number of contacts identified through this research project
- Follow up with 2-3 modules for faculty use in course material integrating webinar feedback into development process

The risks identified included:

- Many institutions are developing smart grid curriculum (proprietary and free)
- What will drive faculty use of the material?

Catherine Weldon recommends developing a strategic relationship with key curriculum providers who can distribute GWAC materials via established channels. Catherine also suggested identifying whether the Department of Energy recognizes a need for more coordinated curriculum at a national level. She also recommends partnering with other like-minded interests to offer comprehensive curriculum.

Some potential partners discussed in this project could include:

- Center for Energy Workforce Development (CEWD)
- Florida Energy Workforce Consortium (FEWC)
- IEEE Power & Energy Society (IEEE PES)
 - Power and Energy Engineering Workforce Collaborative
- GridWise Alliance (partner w/IEEE PES on education and workforce)
- Office of Naval Research (ONR)
 - ONR funded partner with University of Minnesota
 - The ONR describes electric power systems as "prototypical socio-technical systems, meaning that their technical, social, economic, political, and cultural elements are tightly interwoven and impinge

directly and forcefully upon each other.” Their site explains that their goal is to build interdisciplinary partnerships, which allow more unified, coherent research to ensure reliable, secure, and efficient electric power networks.

- Power Systems Engineering Research Center (PSERC)
- Smart Grid Education and Workforce Training Center at the Illinois Institute of Technology

Smart Grid Task Force

Ron Melton, PNNL & GWAC Administrator

There was discussion recently at the Smart Grid Task Force about how the future of the Department of Energy should be relative to driving smart grid implementation. Ron Melton has inquired with Erich Lightner about this discussion and will also get the question to Chris Irwin. Ron Melton is to report back to the council at the next GWAC meeting.

Transactive Energy Workshop Whitepaper Update

Ron Melton, PNNL & GWAC Administrator

Ron Melton is continuing the work on the white paper. Next year’s workshop is tentatively scheduled for the end of March; the venue is to be determined.

Tools for Assessing Smart Grid Interoperability for Smart Grid Investment

Ron Melton, PNNL & GWAC Administrator

Ron Melton shared that the Smart Grid Investment Grant recipients have to address interoperability in their proposal as a part of the project plan (DE-FOA-000058). The DOE-OE would like to assess the consideration of interoperability by the grant recipients. Discussion continued regarding current GWAC tools that could help with an evaluation such as the Interoperability Constitution, Decision Maker’s Checklist, Interoperability Context Setting Framework, and the Interoperability Maturity Model.

Ron Melton discussed the interoperability survey used on the Pacific Northwest Smart Grid Demonstration Project.

Ron Melton proposed that the next step is to have the council draft up a set of survey questions and present them to Chris Irwin for review. Ron Melton asked for volunteers to lead and assist this endeavor. Rik Drummond, Toni Giroti, and Todd Halter volunteered to lead the team.

Chris Irwin is going to be at Grid-Interop and Ron Melton suggested that the team get together with Chris to discuss the project.

Vision Update

Ron Melton, PNNL & GWAC Administrator

Wayne Longcore is reengaging with the vision document process. The document is about 80% drafted and there will be more information to come in the near future.

Call for Candidates 2012

Ron Melton, PNNL & GWAC Administrator

The poll of members with expiring terms has been completed and a call for candidates was sent out November 15, 2011. The application period closes at the end of December and the selection committee will be fully formed at the end of December and so far consists of:

- Jerry Fitzpatrick
- Chris Irwin
- Robert Burke
- Ron Melton

The committee will meet in early January once the applications have been collected. The goal is to select the slate by Mid-January that will be presented to the council at the January web meeting.

Unfortunately, Amr Ibrahim will not be able to continue on the council due to lack of funding to support his participation.

All other members stated they would like to continue on the council. The by-laws call for a minimum of a 20% turnover which would mean that there would be a minimum of two positions available.

Action Items Review

- Erich Gunther is to create and distribute a list of regulators to reach out to and invite to Grid-Interop's Regulators Bootcamp.
- Erich Gunther is to send Todd Halter the 3 Value Benefit Papers presentation slide deck to use in the GWAC 101 Bootcamp.
- Ron Melton and Todd Halter are to follow-up with Anto regarding GWAC representation on the Greenbutton Roundtable. Ken Wacks agreed to participate in the roundtable.
- Grid-Interop track leads are to identify the top two papers in their track for possible award recognition. Presentations are not eligible.
- Ron Ambrosio will connect with Dave Elve to update and produce a new short GWAC 101 presentation slide deck. Ron Ambrosio is to contact Ken Wacks to incorporate Ken's suggestions and comments.
- Rik Drummond and Toni Giroti and Todd Halter agreed to draft Smart Grid Investment Grant interoperability survey questions. Todd Halter to lead this endeavor.

- Ron Melton to contact Chris Irwin and/or Eric Lightner regarding the Smart Grid Task Force and DOE role in US smart grid.

Adjourn

Erich Gunther adjourned the meeting at 11:56 a.m.