

Meeting Minutes August 28, 2012

Members

Ron Ambrosio, IBM T.J. Watson Research Center
Ward Camp, Landis + Gyr
Paul De Martini, Newport Consulting Group
Rik Drummond, Drummond Group
Erich Gunther, EnerNex Corporation
Alex Levinson, Lockheed Martin
Tracy Markie, Engenuity, Small Box Energy
Bob Saint, NRECA
Tom Sloan, Kansas State Legislator
Ken Wacks, consultant to Sensus Metering Systems Inc.
Mark Knight, CGI
Robert Burke, ISO New England

Associates

James Mater, QualityLogic

Support – Pacific Northwest National Laboratory (PNNL)

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

Speakers and Guests

Naeem Ahsan, DNV KEMA
Tom Asprey, Guest
Ludo Bertsch, President, Horizon Technologies

Anto Budiardjo, Clasma Events
Judith Cullington, City Councillor, Colwood
British Columbia
Richard Duong, Moxa America
Daniel Kirschen, University of Washington
Gordon Matthews, Bonneville Power
Administration
Arturio Maria, AT&T
Andrew Moore, Solar Project Manager, T'Sou-ke
First Nations
Gary Nystedt, City of Ellensburg
Terry Oliver, Bonneville Power Administration
Rob Peña, Associate Professor, University of
Washington
Regelson, City of Colorado
Tim Schoechle, University of Colorado
Lynn Segal, Guest
Leighton Stewart, City of Seattle
Leonard, Tillman,
David Wollman, NIST

Members – not present

Tony Giroti, Bridge Energy Group, Inc.

Members Emeritus

Joe Bucciero, EnerNex, LLC

Proprietary Information Notice

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

Welcome and Administrative Business

Erich Gunther

Erich Gunther called the meeting to order at 8:47 am. Erich reviewed the agenda, discussed the changes in format, and asked for any additions.

Minutes from the web meeting that was held on July 18, 2012, were presented to the council via e-mail. No comments were received or made. Tom Sloan motioned to accept the minutes as presented, Tracy Markie seconded the motion and the minutes were approved as presented.

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

- **September 19, 2012:** GWAC Web Meeting
- **October 2-4, 2012:** GridWeek, Washington, DC
- **October 31- November 1, 2012:** GWAC Face-to-face Meeting, Irving, TX
- **November 14, 2012:** GWAC Web Meeting
- **December 3-6, 2012:** Grid-Interop, Irving, TX

Ron Melton reviewed the open action items from the previous meeting:

- Ron Melton revised the GWAC bylaws to include amendment C “GWAC Associate Membership”. The bylaw changes were distributed and approved via email. The revised bylaws will be posted on the GWAC website.
- Ron Melton distributed the DOE Peer Review feedback to Council via email.
- Pending item: Erich Gunther to distribute feedback from his DOE EAC presentation to select staff at DOE and to follow-up with EAC.
- Ron Melton and Erich Gunther had follow-up with Chris Irwin. Discussion continued regarding the follow-up and Ron Melon shared that FY13 GWAC funding was cut but due to carryover GWAC can continue through the next year. This topic is on the agenda to discuss the afternoon of August 29.
- GWAC Stack as a “Standard”: Three meetings have occurred –Ron Melton, as the GWAC Administrator, will be sending a message to Doug Housman, as the secretary of IEEE PES Intelligent Grid Coordinating Meeting, requesting they accept the Context Setting Framework, as presented, to be labeled as an IEEE guidance document. The will create a project authorization request to take this input to create a guide using the specific mechanism within IEEE. This task should be completed roughly in January, 2013.
- TEW 2012 Proceedings are completed and uploaded on the GWAC webpage.

International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) Liaison Report

Ron Melton, PNNL & GWAC Administrator

Ken Wacks chairs one of the working groups under a Joint Technical Committee, JTC1 that deals with the interconnection of information of technology equipment, specifically equipment used for home and building automation systems. Ken Wacks asked if there is a diplomatic message that GWAC would like to convey or if the council would like to provide a liaison report at the upcoming meeting in Switzerland. Discussion continued on the possible options and concluded that it would be beneficial to continue with the IEEE process of creating GWAC Stack guide and to engage the ISO/IEC in future enchantments of the GWAC Stack.

Action taken for Erich Gunther to create a short report on the IEEE GWAC stack as a standard process for Ken Wacks to present at the September 10-13 ISO/IEC meeting in Geneva, Switzerland.

Ron Melton recommended that interoperability with possible smart grid Application Program Interfaces (APIs) is an area the Council might focus their efforts. If interoperability is dealt with properly it would allow others create APIs which could expose smart grid information in which applications could be built upon. This interoperability is a thread to pull and create interactions with groups such as IEEE, ISO/IEC and SGIP. Erich Gunther also suggested coordination with the European Commission M490, which is the standardization mandate for European smart grid deployment.

Ward Camp commented that the application layer of the stack does not have traction among the regulators and suggested the Council work on articulating at the highest level and not just be focused on the lower levels of the GWAC stack.

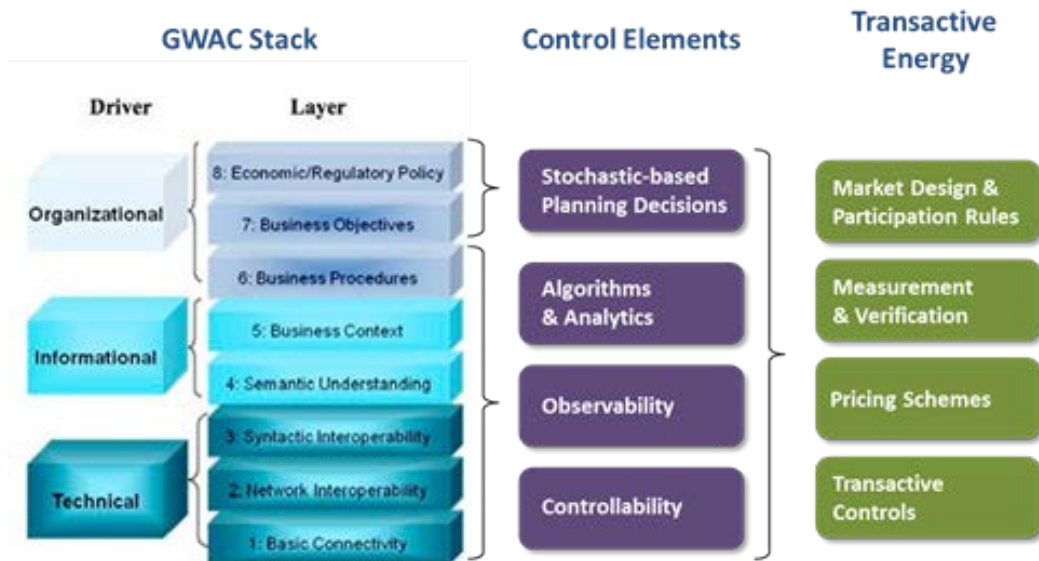
Paul De Martini recommends that the Council looks at extending the GWAC stack into areas dealing with infrastructure such as decision guidelines. Currently distribution utilities in the United States roughly spend 30 billion plus a year on distribution infrastructure replacement. Utility decision makers have an immediate need for a view on physical decisions on items like the platform, wire size, transformer size, and what is the physical arrangement of the infrastructure.

Extended GWAC Stack

Ron Melton, PNNL & GWAC Administrator

De Martini developed an updated view of the GWAC Stack and presented it to the council. The concept was to examine the feedback received from discussions and DOE review and take to opportunity to expand the GWAC Stack in new areas where people are getting “stuck” such as implementation and decision making. For example, as transactive control develops the Council can examine link of control systems and distributed control and how that integrates into the stack. There currently isn’t any architecture in the industry that focuses on transactive control in the physical controls in the grid. Discussion continued regarding possible enhancements to the GWAC Stack.

Ron Ambrosio suggested the Council define a stranded assets in the context in which smart grid is heading. The Council could identify the major characteristics that we need to see in the DMS systems being designed to today for the future vision of the power grid. The Council could then start to build materials around this decision making.



GWAC Associate Vote

Ron Melton, PNNL & GWAC Administrator

We received two nominations for GWAC associates. James Mater was nominated by Ron Ambrosio and Doug Houseman was nominated by Erich Gunther.

Robert Burke moved to accept Doug Houseman and James Mater as the GridWise Architecture Council’s first Associates, Tracy Markie seconded the motion and the motion passed.

Grid-Interop 2012 Planning

Todd Halter, PNNL

Todd Halter reviewed the GI schedule and provided a brief update.

Schedule:

- Sunday
 - SGIP Board Meeting (possible invitation to SGIP executive to a forum that will be at the same time)
- Monday
 - SGIP will continue their Board Meeting
 - Plenary session
 - PAPs and DEWGs meetings will be held
 - Simultaneously GWAC will hold workshops and boot camps
- Tuesday
 - SGIP activities focusing on PAPs and DEWGs
 - Simultaneously GWAC will hold workshops and boot camps
 - Tuesday evening is the Plug-In kick-off event and the GWAC Grid-Interop Forum
- Wednesday
 - Grid-Interop opening
 - GWAC foundational session
 - GWAC track sessions

The Grid-Interop planning committee has reviewed all the abstracts received for the GWAC tracks and authors have been notified of their acceptance or rejection. This year's goal was to have 15 papers for each track. Currently we are under goal but have identified specific experts to contact and invite to submit a paper.

There is a session and panel on investment grants which includes some demonstration involvement. The two of them are as plenary panels in the opening plenary that will tie into the foundation session. Eric Lightner will be the moderator for a select group of investment grant recipients who are considered more forward looking. Separately, Chris Irwin is going to lead a panel session on interoperability challenges and lessons learned in which Mark Osborne will participate in from the PNWSGD project.

Grid-Interop will also include some sort of announcement and celebration of SGIP 2.0.

Boot camps topics and responsibilities include:

- SGIP – Stuart McCafferty
- Transactive Energy – Ron Melton
- Decision Makers Works – Robert Burke
- Technology Adoption Roadmap – Paul De Martini
- Architecture – Stephan Amsbary

- Smart Grid Interoperability Model – Steve Widergren
- Testing and Certification – Rik Drummond

Foundational Session Material

Paul De Martini, GWAC Member

The theme this year is “*Driving to Grid 2020*” with the sub-theme of “*Getting Beyond Fear, Uncertainty and Doubt*”. The foundational session lines up with the GI theme and sub-theme by being titled “The Current State of Interoperability”. Paul De Martini will be leading the creation of the Foundation Session.

Historically the foundational session has been a tutorial for the Council to reach out in an educational way to the community to provide assessment as to where things are and what people should be paying attention.

Paul De Martini asked the council asked for topic suggestions and what is it the Council would like to communicate. Ron Melton suggested the interoperability benefits papers that accesses why interoperability is important. Take the papers and see how the benefits would apply and what gaps exist and how to change them to meet the 2020 goals.

Ron Melton asked what should the three key messages that we want people to take away from the foundational session be.

Format of foundational session is 90 minutes and will include 3, 30-minute presentations:

- Benefits of Interoperability - Presenters: Paul De Martini & Ward Camp
 - Summary of benefits paper
 - How do interoperability benefit in ecosystem
 - Tee-up transactive energy
- SGIMM – Presenter: Mark Knight
 - Demonstrate why system vendors should care about the maturity model and show the value.
- Transactive Energy - Presenter: Ron Ambrosio
 - Create architectural dimensions materials to focus on the foundation pieces of Transactive Energy. Focus on the elements of transactive energy that need to be addressed. Create a few slides that show the GWAC perspective on transactive energy.

One suggestion was to have Erich Lightener set the stage or give the timeline on the evolution of the smart grid.

Workshop Introduction

Kenneth Wacks and Ron Ambrosio

Ken Wacks introduced the workshop presenters and the focus. The workshop theme is the influence of local policy makers and technical champions on smart grids. This is a new view of what can be done at the local community level to complement national or regional level activities.

The workshop speakers are active at the community level and are advancing smart grids with citizen participation and creating new business opportunities. The objectives of this workshop are to identify local community best practices for smart grid development, interoperability challenges faced by community smart grid projects, policy gaps, and key process steps. Many of the workshop speakers will focus on the customer interface.

They will address opportunities for companies to be created in the local community specifically to provide power generation services, electric vehicle charging stations, and energy management services.

Power to the People

Judith Cullington, City Councillor, Colwood, British Columbia

Andrew Moore, Solar Project Manager, T'Sou-ke First Nation

Ludo Bertsch, President, Horizon Technologies

Presentation summary: "Power for the people" provides radical approaches to community energy solutions. The T'Sou-ke First Nation and City of Colwood solar projects have implemented affordable community-wide approaches to reducing energy demand and providing sources of renewable clean energy. Presenters Andrew Moore (T'Sou-ke Solar), Judith Cullington (Solar Colwood) and Ludo Bertsch (Horizon Technologies) will show how communities provide the answer to energy and smart grid implementation. They will speak to the benefits of a holistic and collaborative approach, and how it creates the roadmap for success."

Smart Grid, Renewables, Baseload and Local Policy in Boulder, Colorado

Ken Regelson, Five Star Consultants

Presentation summary: Even though outspent 10 to 1, Boulder's energy advocates won an election to municipalize (take over) the electricity system from our existing investor owned utility (IOU). Why? To answer this, this talk starts with the fundamentals of renewables, baseload power plants, smart grids, and IOU investments in fossil generation, and relates that back to the high-level local actions taken by Boulder voters and electives.

Renewable Power and Smart Grid Community Partnership

Gary Nystedt, City of Ellensburg

Presentation summary: Originator and Project Manager for Ellensburg's Community Renewable Park, Gary has been actively promoted distributed renewable power generation across the country over the past six years. In May 2009, Washington passed SB 6170, providing solar production incentives to encourage other communities to utilize and promote renewable energy sources. In his presentation, Gary will be sharing how the City's Community Renewable Project overcame many of the barriers holding back the advancement of renewables in their community. He will also be going over some of the challenges he faced in developing, marketing and funding the project.

Net-Zero Buildings and the Smart Grid: Seattle's Bullitt Center

Rob Peña, Associate Professor, Integrated Design Lab, University of Washington

Presentation summary: In addition to being the "greenest urban office building in the world," the Bullitt Center, nearing completion in Seattle's Capitol Hill, will also be an urban power plant generating about 230,000 KWh per year with a 242 KW, 14,300 sf PV array. All of this energy will be fed into the municipal grid. At the same time, the building will purchase electricity from Seattle City Light – at a rate hopefully less than 230,000 KWh per year. Rob Peña from the UW's Integrated Design Lab will describe the Bullitt Foundation's plans and intentions for this project, how this building looks back-to-the-future in its approach to design, and how it could signal a turning point in the design of 21st century buildings. Rob asks this group: how might a city of net-zero energy buildings and widespread distributed power generation shape the Northwest's smart grid of the future?

Summary and Day 2 Objectives

Ron Melton, PNNL & GWAC Administrator

Ron Melton thanked the special speakers and participants that made GWAC's workshop a success. Ron asked that the meeting participant consider the day's presentations overnight and be prepared to contribute to next day's discussions as the workshop continues.

Adjourn

Erich Gunther adjourned the meeting for the day at 5:00 p.m.