

## Meeting Minutes August 29, 2012

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### Members

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

### Associate

James Mater, QualityLogic

### Support – Pacific Northwest National Laboratory (PNNL)

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

### Speakers and Guests

Tom Asprey,  
Patricia Betz, Marketing Professional  
Richard Duong,  
Daniel Kirschen, University of Washington  
Gordon Matthews, Bonneville Power Administration  
Gary Nystedt, City of Ellensburg  
Terry Oliver, Bonneville Power Administration  
Tim Schoechle, International Center of Standards Research  
Lynn Segal, Guest  
Michael Stelts,  
Leonard, Tillman,  
Leighton Stewart, Seattle City Light  
Mark Walters, Zwave Alliance  
David Wollman, NIST

### Members – not present

Tony Giroti, Bridge Energy Group, Inc.

## 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 8:45 a.m. and the quorum was established. Ron Melton introduced Daniel Kirschen from Washington State University and Mark Walters from Zwave Alliance.

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

## Summary and Day 2 Objectives

*Ron Melton, PNNL & GWAC Administrator*

Ron Melton recapped yesterday's presentations and objective. The objective is to pull together information from the various presentations and discussions from the previous day and identify core material for a short 3-5 page summary in the workshop proceedings.

## Workshop Discussions and Results

*Ron Melton, PNNL & GWAC Administrator*

Each of the presentations provided a different view and approach to community level activities changing the relationship between the community and the electric power system. Several common themes emerged from the presentations.

### **A Vision for a Sustainable Future**

Each of the projects or activities presented during the workshop had a core vision for better use of energy to achieve a more sustainable energy future. In the case of Solar Colwood and T'Sou-ke Solar the vision included both meeting community energy needs and creating new economic opportunity within the community. The Community Renewable Energy Park concept created by the City of Ellensburg was perhaps more pragmatic in nature in working to make it easier for a broad cross-section of the community to invest in and receive benefits from renewable energy while at the same time easing the impacts of new energy resources on the municipal utility. The Bullit Center in Seattle brought a vision of sustainable energy in an urban environment through integrated design of new buildings. The proposed change of energy service provider in Boulder, Colorado, represented a broad vision of community involvement in determining the future of electric power in their community.

In each case there was an individual or a small group who had the vision for a new future and communicated that vision in a manner that could be understood and acted upon for others. Though it may seem obvious once stated – without this vision and leadership none of the projects or activities would exist today.

### **The Power of Holistic Approaches**

Another common theme among the presentations and discussion was the importance of holistic approaches. These are approaches that consider the total system and system lifecycle. One particularly important aspect was imperative to several of the efforts – the need to consider and manage total energy requirements and in doing so balance new energy sources with effective use of conservation and energy efficient approaches. A key point of the Solar Colwood and T'Sou-ke Solar activities was the overall effectiveness of the results was dependent on considering this balance. Though in their case they emphasized the solar technology first, due to its appeal to the communities, to provide a complete result they had to look at the complete picture. One of their conclusions is that one should start with conservation and reduce energy

requirements first. Then one can address sustainable means of meeting the lower energy supply requirements through solar or other means.

It turned out that the University of Washington had to take the same factors into considerations in designing the Bullit Center to be a net-zero building. The energy footprint of the building had to be reduced to the point that photovoltaic panels on the roof could supply enough energy to achieve the net-zero goal. The size of the roof was naturally limited by the size of the parcel of land – thus there are hard limits on the possible generation of power from the photovoltaic units.

### **Not Just a Technology Problem**

All of the presentations and associated discussion had a combination of technology and social considerations. In some cases these had to do with making information available to people, in other cases it had to do with understanding people's expectations and providing a means for their expectations to be articulated and taken into account by the project. The social dimensions that make these examples more than just "technology problems" are another manifestation of the power of holistic approaches.

## **Workshop Wrap-up**

***Kenneth Wacks and Ron Ambrosio***

The Council agreed it would be helpful to summarize the workshop and show how this workshop related to GWAC's future vision and submit it as an article in a publication that management and executives would respect. Council identified and discussed key innovations that will be used for an article outline.

Workshop proceedings will be created and posted on the GWAC website.

## **NIST Update**

***Dave Wollman, NIST***

NIST continues to appreciate its close working relationship with the GridWise Architecture Council as well as moving in to a new phase of the Smart Grid Interoperability Panel. There is a transition underway to the SGIP 2.0 which will rely more on the private sector for its funding, however the government will be a strong partner in this effort. The SGIP is making strides forward in the process with establishing the legal entity and currently working through some organization issues and preparing for a major membership drive. NIST is working closely with SGIP to help support the transition and to continue the interest in work. SGIP will continue to work within the organization.

NIST held a joint R&D needs workshop in Boulder, Colorado in August. This workshop will lead to an opportunities document that outline key priorities and needs for R&D and crosscutting area as determined by the input from the community.

NIST works closely with the rest of the Federal Government and there has been progress with the Smart Grid Task force, which is looking at privacy issues and what the Federal Government could do to be a driver for smart grid through their own programs and in other areas.

NIST is currently working on the research and program plans for the coming year.

## GWAC FY13 Planning

### *Ron Melton, PNNL & GWAC Administrator*

Ron Melton reported that the DOE has no additional fiscal year (FY) 2013 funds for GWAC. It is anticipated the funding will return in FY 2014 to continue GWAC activities. It is expected the PNNL can provide 400k in funding, which is 2/3 of the previous budget. Ron Melton suggested the Council reduce the number of face-to-face meetings to two meetings a year. Another way to reduce costs is to have Council members host or seek new companies to co-host face-to-face meetings. Discussion continued regarding possible hosts and meeting locations.

Council members decided on the two below dates for the next GWAC face-to-face meetings:

- February 5-6, 2013 – Possibly hosted by General Electric in Atlanta, Georgia
- May 21-22, 2013 – Hosted by BPA in Portland, Oregon/Smart Grid Oregon

Initial feedback received from the DOE for the GWAC's FY13 expectations and focus:

- Continue GridInterop 2013
- Continue to support SGIP through GWAC members being involved with activities
- Working on architecture smart grid elements and issues in collaboration with SGIP, presumably in the Architecture Committee and report back to the Electricity Advisory Committee

Tom Sloan suggested Ron Melton contact the University of Idaho and offer assistance with regulator boot camp curriculum development to raise our visibility.

Ward Camp and Paul De Martini recommended that GWAC investigate New Mexico State's annual strategic smart grid conference in Santa Fe in addition to their regular training. The conference is highly attended by regulators.

Paul De Martini suggest to connect with the makers of the PUR guide, which consists of 6-7 volume guides from start to finish training for the electrical system. Perhaps we can provide information to be included in the guide.

Ron Melton encouraged all the council members to reread the Interoperability Context Setting Framework (GWAC Stack) and Benefits Papers.

The current GWAC activities that Erich Gunther identified are as follows:

- GWAC Stack Extension update and the immersion of transactive energy into the stack – Lead by Paul De Martini
- Smart Grid Maturity Model
- Transactive Energy
- Templates of how to use the GWAC Stack

### **Renewing Council Members**

In preparation for the call for GWAC candidates, Ron Melton will be contacting cycling members individually to see if they are still interested in continuing their membership or move to emeritus membership.

Cycling members include:

- Robert Burke
- Tony Giroti
- Bob Saint
- Ward Camp
- Tracy Markie

### **Maturity Model**

Before we received the news of the lack of funding we were intending to have workshops to finalize the work on the model. Monday there was a workshop and it was discovered that the state of the assessment tool needs development due to ambiguities that caused problems.

James Mater recommended having one more SG IMM face-to-face meeting and take what was learned from the ADP and Pacific Northwest Smart Grid Demonstration and do some refinement of what we have and prove a task list or road map and then look at moving the tool to another source for continued refinement and socialization.

### **OE-30 and the Cyber Security Maturity Model**

Ron Melton stated that there seems to be a great deal of confusion about the number and purposes of the different maturity models. There may be an opportunity to get OE30 to support the continued development of the SG IMM. One could make a case that interoperability SG IMMO has a direct role to play in system security.

James Mater suggested that the Council creates materials or a paper to provide clarification of the different maturity model.

Alex Levinson suggested that GWAC work and the transforms model into a useable assessment tool or product.

### **Blue Ocean Group Notes**

#### ***Ron Melton, PNNL & GWAC Administrator***

Workshop discussions lead to the topic of the need to engage and provide high-level utility executive and Commissioners information on the future of distributed energy resources. Ron Melton recommended that we identify a select group of these executives and commissioners and invite them to attend a GWAC workshop focused on the evolution of the power system. Paul De Martini agreed with this suggestion but suggested to the Council work on new materials approachable to this select group.

A team was assembled to work on packaging GWAC's message in the context that is relatable to this high-level group (Blue Ocean Group). Todd Halter will be the lead, Paul De Martini and Tom Sloan will be writers, and Ward Camp and Ken Wacks editors.

## Transactive Energy Update

**Ron Melton, PNNL & GWAC Administrator**

Ed Cazalet' has been leading the effort to create a Transactive Energy road map. The Transactive Energy Road Map (TERM) begins with a vision, benefits and retail rates, retail markets and continued planning. One of the big questions that came up in the TEW discussions is how to you should deal with reliability with the bigger picture. The group is currently working on defining the common architecture elements at a conceptual level.

The Transactive Energy Proceedings are completed and posted on the GWAC Website.

Ron Melton collaborated with UC Davis professor Anna Scaglione and her team on a transactive energy related paper that is coming out in the September issue of the IEEE Signal Processing magazine.

## SGIP Update/Discussion

**Steve Widergren, PNNL**

The main news is the formation of SGIP is a legal entity, incorporated and board of directors and committees formed. GridWise Architecture Council members Rik Drummond and Bob Saint are SGIP Board of Directors.

The SGIP is reaching out selectively for membership and plans to send the membership packet out soon for membership at large. There are some fundraising and marketing efforts moving forward.

Other news include a new Priority Action Plan (PAP) is being proposed on weather data and Working Group (DEWG) on gas infrastructure.

Ken Wacks will continue to chair the Home to Grid Domain Expert Working Group under the new governance of SGIP.

## BnP DEWG

**Ron Melton**

There was a very good and well attend BnP DEWG at the SGIP meeting in Portland, Oregon. There was an interesting presentation of market research that spoke about consumer's experiences with smart meters. This presentation is available on the SGIP's Twiki <http://collaborate.nist.gov/twiki-sggrid/bin/view/SmartGrid/WebHome> the other topics were the smart meter opt-out programs. CALPUC discussed their various experiences of opt-out approaches.

## Review of Action Items

### **Ron Melton, PNNL & GWAC Administrator**

- Evaluate potential co-sponsors for future face-to-face meetings
  - February meeting – Erich Gunther to contact GE
  - May – Terry Oliver and James Mater to assist with securing a location
- Blue Ocean Group task
  - Blue Ocean" committee (Tom Sloan, Paul De Martini, Terry Oliver and Todd Halter) will draft a 4 to 5 page white paper on the "Blue Ocean" topic discussed at the GWAC F2F in Seattle
- Create proceedings and results from August workshop
  - Proceedings draft created and will be distributed to council for review and discussion at October's face-to-face meeting
- GWAC as a "standard" item
  - 9/10/12 Ron Melton submitted a request to Doug Houseman, as the Secretary of the IEEE PES Technical Committee for PES related standards, to recognize and publish the GWAC stack as a standard
- Benefits paper presentation task
  - Erich Gunther to email Todd Halter a copy of the Benefits Paper slide deck
- Liaison letter from GWAC to ISO/IEC JTC1/SC25/WG1
  - 9/7/12 Erich Gunther created and distributed liaison letter
- Grid-Interop Foundational session assignments
  - 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.

## Adjourn

Robert Burke motioned to adjourn the meeting, Rik Drummond seconded the motion, Erich Gunther adjourned the meeting for the day at 3:14pm.