



GridWise Architecture Council Meeting Washington, DC

March 25-26, 2008

Meeting Minutes

Chairman Jack Mc Gowan led the meeting from 8:00 a.m. – 5:00 p.m. on March 25 and 8:30 a.m. – 3:00 p.m. on March 26.

Present

Architecture Council Members

Ron Ambrosio, IBM T.J. Watson Research Center
Nora Mead Brownell, BC Consulting
Joe Bucciero, KEMA Consulting
Rik Drummond, Drummond Group
Erich Gunther, EnerNex Corporation
Stephanie Hamilton, Southern California Edison
David Hardin, Invensys Process Systems
Alex Levinson, Lockheed Martin
Jack Mc Gowan, Energy Controls, Inc.
Ken Wacks, Broadband Energy Networks

Architecture Council Support

Steve Widergren, Ron Jarnagin, Heather Kuykendall, Ruth Taylor (via telecom) - Pacific Northwest National Laboratory

Speakers and Guests

Sharla Artz, Schweitzer Engineering Laboratories
Jim Baker, BAE Systems
Philip Bane, Global Smart Energy
Matt Brown, Ernst & Young LLP
Anto Budiardjo, Clasma Events
Lawrence Carter, Bonneville Power Administration
Becca Dietrich, GridWise® Alliance
Jerry FitzPatrick, NIST
Steve Hauser, GridWise® Alliance
Eric Hsieh, National Electrical Manufacturers Association (NEMA)
Ray Jones, IBM
Commissioner Sudeen Kelly, FERC
Srini Krishnamurthy, Eka Systems
Eric Lightner, Department of Energy
Randy Lowe, AEP
Austin Montgomery, Carnegie Mellon
John Nail, FERC

Carla O'Dell, APQC
Mike Oldak, EEI
James Pace, Silver Spring Network
Tom Schneider, IEEE USA

Not Present

Lynne Kiesling, Northwestern University
Russell Robertson, Tennessee Valley Authority
Richard Schomberg, Electricite de France

Proprietary Information Notice

The members and guests were reminded of the proprietary information disclosure policy from the Bylaws.

Meeting Minutes Approval

The minutes from the January 15-16 meeting were approved with no changes. All meeting minutes are available at <http://www.gridwiseac.org/meetings/meetingminutes.aspx>.

Welcome New Members

The newly elected Council members were introduced and welcomed: Nora Mead Brownell, BC Consulting; Alex Levinson, Lockheed Martin; and Ken Wacks, Wacks Consulting on behalf of Broadband Energy Networks. Congratulations were given to the re-elected Council members: Lynne Kiesling, Northwestern University; Ron Ambrosio, IBM T.J. Watson Research; Rik Drummond, Drummond Group; Erich Gunther, EnerNex Corporation; and Stephanie Hamilton, Southern California Edison.

Upcoming GWAC Meetings

- April 25, 2008 – web meeting from 9 – 11 a.m. PT
- May 19-20, 2008 – face-to-face meeting in Santa Clara, CA in conjunction with Connectivity Week
- July 11, 2008 – web meeting from 9 – 11 a.m. PT
- September 22, 2008 – face-to-face meeting in Washington, D.C. in conjunction with GridWeek, September 23-25
- October 31, 2008 – web meeting from 9 – 11 PT
- November 11-13, 2008 – Grid-Interop 08, target location Atlanta, GA

Action Item:

Heather Kuykendall is to coordinate logistics for the April web meeting with council members.

Title XIII Smart Grid Legislation Activities at DOE-OE

Presentation – Eric Lightner, DOE

Eric Lightner provided an update on the Smart Grid Advisory Subcommittee and the Smart Grid Task Force, formed from the Energy Independence and Security Act (EISA) of 2007. The Smart Grid Advisory Subcommittee is a subgroup of a larger Electricity Advisory Committee. Secretary Bodman approved the members of the Advisory Committee and invitations were mailed last week.

The Smart Grid Task Force held their first meeting on March 20, meeting the 90-day criteria outlined in the legislation. This is an inter-government agency group tasked with coordinating smart grid activities. Eric Lightner leads the task force for DOE.

Three reports are called out for development in the legislation. The Smart Grid System Report is a biennial report that conveys the status of the smart grid. PNNL is coordinating the development of the report. Erich Gunther said that the IEEE Power Engineering Society's Intelligent Grid

Coordination Committee is collecting information that may be useful for this report. A study of the effect of private wire laws on the development of combined heat and power facilities is being scoped. Finally, DHS is engaged in the planning for a study of security attributes of smart grid systems.

The Office of Electricity is hosting a Smart Grid Implementation Workshop on June 19-20, 2008 to review the characteristics of a smart grid and reach consensus on metrics for assessing smart grid progress. By GridWeek in September 2008, the task force will release a document defining what smart grid is, why smart grid is necessary, and what the value is. The Task Force will also set parameters for smart grid demonstration projects and determine funding allocations consistent with Congressional appropriations.

Smart Grids Capability Maturity Model

Presentation – Carla O'Dell, APQC and Ray Jones, IBM

The Intelligent Utility Network (IUN) is a coalition of utility companies, including CenterPoint, Pepco, Country Energy, Sempra, and IBM. Their goal is to establish widespread industry adoption of the IUN Maturity Model. The model is used to refine and measure the success of utility enterprises' smart grid efforts. The model is a five-step enterprise management tool that facilitates taking a company from vision to implementation and future innovation. The speakers requested GWAC member comments and suggestions for improvement.

NIST Interoperability Framework & Collaboration

Presentation – Jerry FitzPatrick, NIST

The EISA of 2007 gives NIST the primary responsibility to coordinate the development of a framework to achieve interoperability of smart grid devices and systems. Jerry provided some background on NIST's present activities related to the electric power system. Their near-term activities are to identify and consult with interoperability stakeholders (such as the GWAC), identify existing smart grid related standards, and provide their input to the DOE Smart Grid Task Force. By December 2008, NIST will publish a report on progress toward smart grid standards and protocols.

Discussion ensued regarding the many standards in place and under development in different standards bodies. Jerry explained that NIST's role is not to pick standards winners and losers, but to harmonize standards and their development efforts. This includes investigating approaches to bridge automation systems based on different standards using concepts such as interface gateways.

FERC Smart Grid Activities

Guest – FERC Commissioner Suedeen Kelly

The EISA of 2007 gives FERC the responsibility, within their federal purview, to institute the adoption of standards and protocols that insure smart grid functionality and interoperability based upon NIST's consensus building framework efforts. Right now, FERC is educating their staff on smart grid issues. They are establishing a Smart Grid Collaborative with NARUC concerning regulatory aspects to facilitate the transition to a smart electric grid. By teaming with NARUC, they hope to coordinate transmission and distribution aspects of the smart grid. They will be meeting soon with NIST, DOE, and the Smart Grid Task Force. FERC will create a game plan following this session.

Commission Kelly explained that FERC has created the Energy Innovations Sector. Part of this group's work will be to investigate smart grid concerns and coordinate with NIST and DOE. The sector is also looking at innovative generation resources such as wave power, distributed

generation, wind, hydro, demand response, and large-scale storage in addition to climate change policy. Ray Palmer leads the sector and will be the point of contact for coordination with the GWAC. He is also the FERC representative on the Smart Grid Task Force.

The ensuing discussion emphasized that interoperability is not achieved by simply adopting standards, but that it involves achieving alignment and agreement at many levels, as portrayed in the GWAC categories of interoperability in the context-setting framework. This includes aligning policy and regulatory decisions with business objectives and processes, as well as the technology that supports these processes.

NIST Potential Points of Collaboration

Various GWAC work products were presented as items that may be useful to NIST in their framework efforts. These are also living documents, in that the principles and concepts in the Constitution, Framework, and Decision Makers' Checklist will be revised based upon comments and engagement with others. In addition, the GWAC KnowledgeBase provides a browse-able interface with different views into the complicated set of standards, organizations, and smart grid related efforts. NIST awareness of this material is relatively low at this point; however, consideration will be given to reusing and extending this information.

The Council approved Jerry FitzPatrick as the official liaison between GWAC and NIST. He will be given access to the GWAC SharePoint site, which contains background documents and more details about the Council work products.

NERC, IEEE, and GWAC (Widergren joined by Bucciero) are meeting on March 27 for an initial discussion regarding collaboration. A follow-up discussion with GWAC is planned for the May 19 GWAC meeting during ConnectivityWeek.

Action Items:

Heather Kuykendall is to provide access to SharePoint for Jerry FitzPatrick.

Steve Widergren to coordinate with NIST on a follow-up session during the 19 May 08 GWAC meeting.

Horizon Meeting Goals

The January Horizon Meeting GWAC goals were reviewed. A strategic statement was edited by Richard Schomberg and Joe Bucciero and now occupies the preamble to the GWAC Mission and Structure document.

Ron Jarnagin presented a list of 5 goals that was synthesized from the meeting notes by Ron and Steve Widergren and commented by Stephanie Hamilton prior to the meeting. Comments from the meeting included a recommendation that the Council revise the focus of the goals to highlight products rather than branding. Also, goal 5 should be reviewed to see if its points can be incorporated into the previous 4 goals, particularly goal 1.

The Council felt the goals accurately captured the thoughts from the meeting. A team is assigned to recommend refinements to this list. The team includes Ron Ambrosio, Joe Bucciero, Erich Gunther, and David Hardin. Ron Jarnagin is assigned to the team from the administrative team. The goals will also be reviewed for alignment with the Mission and Structure document.

Action Items:

Ron Ambrosio, Joe Bucciero, Erich Gunther, David Hardin and Ron Jarnagin are to propose revisions to the GWAC Horizon Goals. Consideration is to be given to ensure alignment with the recently approved Mission and Structure document. (Due 25 April 08)

GWAC Organization & Structure

The concept of extending the Council structure to engage a larger number of interested experts and liaisons has become a more pressing issue following the Grid-Interop meeting and the recent legislation. It is important to keep emeritus members involved in GWAC activities. Ron Jarnagin presented a formal committee structure that complements the 13 member Council. This will enhance GWAC progress in targeted areas to advance interoperability, as well as encourage community development.

Proposed structure:

- I. Internal
 - a. Continue supporting teams for internal GWAC tasks
 - b. Examples: Communications Team, Benefits Team, Goals Team
 - c. Other teams as needed
- II. External
 - a. Official Liaisons (GWA, EPRI, NIST, FERC, NARUC, others) to serve as diplomats to the various organizations that are a part of the smart grid community
 - b. External Committees (Chairs of these committees will become ex-officio members of the Council), examples include,
 - i. Building to Grid
 - ii. Industrial to Grid
 - iii. Home to Grid
 - iv. Interoperability Policy
 - v. NIST Integrated Framework

Erich Gunther recommended forming a formal liaison with the UCA International Users Group. Ray Palmer is a natural liaison between GWAC and FERC. Erich also suggested adding an external committee related to field area network communications. Jack Mc Gowan proposed creating an Executive Advisory Board or Committee as an over-arching set of advisors to the Council. Example members would be a FERC Commissioner, a NARUC Commissioner, and high-level industry executives. An inter-T&D operations interoperability committee was also suggested. Such a group would consider involvement from NERC and RTO/ISOs. Mention was made that organizations already exist in this area, so a new group would need to be careful to highlight complementary efforts.

The first three external committees in the outline above would be formed as an outcome from Grid-Interop '07. The Policy Committee would take the existing Policy Team and develop a formal structure with GWAC and external members. A Council member will remain involved in each committee as an active participant. External members would be encouraged to hold committee chair or other recognized positions.

Volunteers for developing committee formation proposals include:

- Building to Grid: Jack Mc Gowan
- Industrial to Grid: David Hardin and Alex Levinson
- Home to Grid: Ken Wacks and Erich Gunther
- Interop Policy: Lynne Kiesling (by proxy), Erich Gunther, Ron Ambrosio, and Nora Brownell (by proxy). Emeritus member Alison Silverstein would be expected to participate in such a committee.
- NIST Framework: Rik Drummond, Dave Hardin, and Ron Ambrosio,

Ron Jarnagin and Steve Widergren are to draft a background document outlining the roles and responsibilities of the internal and external membership outlined in the new structure, and submit it to the Council one week before the next GWAC Meeting. Rik Drummond made a motion to accept proceeding with developing an expanded Council. Nora Brownell seconded, and the Council agreed in favor of the motion.

Action Items:

Jarnagin and Widergren are to draft a background document outlining the roles and responsibilities of a new Council structure. (Due 18 April 08)

GWAC team member to develop formation proposals for building to grid, industrial to grid, home to grid, interop policy, and NIST framework external committees. Jarnagin and Widergren to assist. (Due 18 April 08)

Erich Gunther is to develop a proposal for a field communications network committee. (Due 18 April 08)

Stephanie Hamilton is to develop a proposal for an inter-T&D operations committee. (Due 18 April 08)

GWAC Work Process Improvements

Work Process

Steve Widergren proposed a process improvement for teams and committees within the Council. The suggested system is as follows:

- I. Assemble GWAC team to accomplish a task
 - a. Name members and a lead
 - b. Assign administration help
 - i. Set up meetings
 - ii. Capture actions
 - iii. Capture deliverable
 - c. *Task remains within team*
- II. Deliver draft product for GWAC review
 - a. Administration distributes with instructions
 - b. Establish review schedule
 - c. Administration collects comments
 - d. *Task remains within team*
- III. Team responds to comments and revises
 - a. Team prepares revision
 - b. Administration captures result
 - c. *Task remains within team*
- IV. Deliver work product for GWAC acceptance
 - a. Administration distributes with instructions
 - b. Establish review schedule
 - c. Administration collects ballots/comments
 - d. Administration announces results

Rik Drummond made a motion to accept the above process, and Nora seconded. The Council agreed in favor of the motion.

Endorsement/Support Policy

People and organizations have requested GWAC support or endorsement for conferences, recognition of direction, and memorandums of understanding. The Council discussed that if it is not a product or commercial endeavor, and if it is professional and for the public good, then it is appropriate and reasonable for the Chair and Administrator to consider requests for endorsement or support.

Stephanie Hamilton suggested that a standard template of approval should be written that can be adapted to the situation. Steve Hauser offered that the GWAC should consider if they desire something in return, such as a reciprocal letter indicating acceptance of the constitution or other guidelines in order to receive support. Joe Bucciero voiced concern that the content of what GWAC supports should be clear. Steve Widergren suggested that a checklist of criteria for endorsement would be a good tool. A team volunteered to help develop such a test/checklist: Stephanie Hamilton, Erich Gunther, Nora Brownell, Joe Bucciero, and Jack Mc Gowan.

Action Items:

Stephanie Hamilton, Erich Gunther, Nora Brownell, Joe Bucciero, and Jack Mc Gowan are to draft a checklist and letter of support template. Steve Widergren is to provide administration support. (Due 24 April 08)

Steve Widergren is to forward the 2-page overview of the Santa Fe Community College smart grid coursework that was supported by GWAC. (Due 28 March 08)

GridWise Alliance Coordination

Guest – Steve Hauser with Ron Ambrosio

A memorandum of understanding was signed at a GridWise Alliance (GWA) meeting in December. As a result, Council members are eligible to become Alliance members. Becca Dietrich will send an email to the Council members with an application and MOU information. The GWA increased its membership from 13 to 60 last year, and it continues to show strong growth. A search is underway for a full-time president. Steve Hauser would like to create consistent outreach and education message that goes out from the GWA and GWAC. He also mentioned that it appears 2 of the 30 Electricity Advisory Committee members will be GWA members.

On the policy advocacy front, small bills related to energy are working their way through Congress. Steve Hauser asked the GWAC to see what they would like to see added regarding interoperability. Attention is also being given to appropriations to some of the EISA legislative sections.

Ron Ambrosio is leading an Interoperability Team within the Alliance, which is a synergistic opportunity between GWA and GWAC that focuses more on near-term implementation concerns. Council members are requested to forward recommendations of potential volunteers for the working group. Also, he requested suggestions on the mission and agenda for the team. GWA volunteers were given the assignment to read the framework document and the Grid-Interop proceedings.

Action Items:

Council members are to forward recommendations for volunteers to the GWA Interoperability Team to Ron Ambrosio. (Due 18 April 08)

Steve Widergren is to add more GWA liaison discussion to the next meeting agenda. (Due 25 April 08)

Upcoming Events

Guest – Anto Budiardjo

Connectivity Week: May 19-22; Santa Clara, CA

The GWAC will present at least two GridWise Applied awards at Connectivity Week, one for an individual, and one for a company that has demonstrated an application of GridWise principles. The call for nominations went out, and the Council or a Council subcommittee will vote on the submissions. The entire Council will confirm the winners. Anto is to speak with Philip Bane regarding publishing the call for nominations in the Smart Grid News.

- May 19: A GWAC meeting is scheduled that may extend into the morning of May 20. The OpenADR Workshop will also meet on this date. It was formed as a result of the B2G Summit in January.
- May 20: There is an I2G Summit (Dave Hardin coordinating with Tom Burke, OPC Foundation) and an EISA 2007 Workshop. Erich Gunther needs some assistance with the Smart Grid Basics boot camp. Anto Budiardjo and Jack Mc Gowan will add a B2G discussion during the Buildings 2.0 Roundtable.
- May 21: Steve Widergren is leading a Smart Grid Opportunities track. David Hardin is involved in planning IndConn. Ken Wacks is involved in HomeConn. Ken agreed to present on home automation during the State of Interoperability panel in the Smart Grid Opportunities track.
- May 22: An AMI Implementation Roundtable will take place. Anto is organizing another home automation related track on this day.

Action Items:

Anto Budiardjo, Jack Mc Gowan, and Steve Widergren are to consider a description of GWAC organization extensions in a plenary session. (Due 11 April 08)

Jack Mc Gowan and Steve Widergren are to propose a nominations committee for the GridWise Applied Awards. (Due 30 April 08)

GridWeek: September 23-25; Washington, DC

A GWAC meeting is scheduled for Monday, September 22, and may extend into the morning of September 23. Steve Widergren is developing a track on Interoperability of the Smart Grid.

Grid-Interop '08: November 11-13, Atlanta, GA

The date of the next Grid-Interop meeting was agreed to by the Council. Anto is checking on Atlanta, but there is another big convention in town at this time. Ron Jarnagin will be forming a planning committee soon. It will have representation from external experts as well as the GWAC. Council members are to forward their interest and suggestions to Ron Jarnagin (Rik Drummond noted his interest). A call for papers is also being planned. Consideration should be given to migrating the paper process to professional societies.

Action Items:

Ron Jarnagin is to form a planning committee for Grid Interop '08. (Due 18 April 08)

Ron Jarnagin to consider migrating the call for papers process to one or more professional societies. (Due 1 July 08)

Smart Grid Finance Proposal

Presentation – Jim Baker

In 1998, a bill was sent to the White House that proposed a way for 10 billion dollars to be saved and applied towards the cost of smart grid implementation. The House of Representatives passed the bill, but it died in the Senate. Military and government thermal plants are outdated and operate at 33% efficiency. The recommendation was to develop combined heat and power plants and apply metering technology at 100 bases as a pilot test. In addition to the environmental benefits, the power source would be generated within base borders, satisfying DOD requirements. Jim Baker would like to revisit something like this as a way to stimulate smart grid actions.

NEMA, IEEE, & GWAC Smart Grid Efforts

NEMA and IEEE are two organization named with NERC and the GWAC as consultants to NIST in the EISA legislation.

NEMA Presentation – Erich Hsieh

The National Electrical Manufacturers Association (NEMA) is an association including over 400 electrical and medical manufacturers that coordinate with existing standards communities and efforts. A NEMA smart grid task group was formed in 2007. NEMA has identified five Intelligence Levels as a way to discuss and organize smart grid equipment and applications. This idea could be harmonized with the GWAC interoperability categories and crosscutting issues in the framework. NEMA has an established pool of dedicated members as well as an accredited standards development process to utilize the framework.

Action Items:

Steve Widergren is to forward the NEMA white paper on levels of intelligence to the Council. (Due 28 March 08)

IEEE Presentation – Tom Schneider

The Institute of Electrical and Electronics Engineers (IEEE) is a major professional association for the advancement of technology with more than 300 local IEEE sections, 1,300 technical chapters, and 450 annual IEEE conferences worldwide. IEEE is organizing itself to respond to the EISA 2007 and is looking forward to coordinating with NIST. Tom stated that NIST needs to ensure that it incorporates international standards into the US standards that it creates.

Interoperability Benefits Papers & Checklists

The Financial Benefits paper is under contract with Harbor Research, and they have requested an accelerated schedule. A project kick-off meeting was held on February 29, and a detailed outline and storyboard will be delivered for review on April 2. Final delivery of the paper is expected by the end of May. Contract negotiations are underway for the Environmental Benefits and Reliability Benefits papers. Following progress on these papers, a Consumer Benefits paper will be contracted.

Feedback from the draft Decision Makers' Checklist is under review by Alison Silverstein. The End-User Checklist team includes Erich Gunther, Lynne Kiesling, Nora Brownell, Joe Bucciero, and Ron Ambrosio. For the Technology Checklist, Steve Widergren suggested that GWAC review the smart grid project score card and determine its potential use as a basis for a GWAC technology checklist. The team for the Technology Checklist includes Erich Gunther, Joe Bucciero, David Hardin, Ron Ambrosio, and Alex Levinson.

Mike Oldak expressed EEI interest in the development and results of these benefit papers.

Outreach & Liaison Reports

GWAC Liaisons

GridWise Alliance, FERC, and NIST: These were covered earlier in the meeting.

EPRI IntelliGrid: Erich Gunther reported progress on smart grid roadmaps for several electric utilities. The roadmaps look at a ten-year horizon. Many smart grid projects are going forward applying the IntelliGrid architecture methodology. EPRI is placing an emphasis on their energy efficiency activities which are related to smart grid developments. A database of lessons learned in AMI is also being developed.

GWAC Recent Outreach

DistribuTECH: Erich Gunther taught a smart grid course in the Utility University session on smart grid that was well attended (50 people). They went over the GWAC interoperability framework, checklist, and constitution. The feedback from attendees was good. They would have liked an entire day for the class.

B2G Summit and AHR Expo: Jack Mc Gowan reported that the B2G Summit and the AHR Expo both went well. The green buildings session at ConnectivityWeek is a result of this meeting.

European Smart Grid: Guido Bartels and Ron Ambrosio attended a European Smart Grid Framework 7 meeting on February 6 in Brussels.

Northwestern University Kellogg School of Management Sustainability Forum: Ron Ambrosio and Lynne Kiesling attended this meeting in March in Chicago.

NSF Future Energy Systems Conference: Ron also attended this Carnegie Mellon meeting on March 10 in Pittsburgh.

Upcoming Outreach

Green Intelligent Buildings: Jack Mc Gowan will be attending this biannual conference. GWAC is an endorser.

IEEE Power Engineering Society: Erich Gunther will participate in the Intelligent Grid Committee meeting at the IEEE T&D Show. Dave Cohen, Steve Widergren, and Erich Gunther will attend the General Meeting, held in Pittsburgh July 20-24. There will be several panel sessions on smart grid and the related committee meetings.

Citizens Utility Board of Illinois: Erich Gunther and Lynne Kiesling will be presenting the GWAC checklist to this group in Illinois.

NY Public Service Commission: Erich is attending an AIM communications networking conference sponsored by the Commission on April 14-15. They are interested in applying the GWAC interoperability principles.

NSF Cyber Physical Systems Summit: Ron Ambrosio will be attending this NSF sponsored meeting.

Action Items:

Council members are to forward their outreach activities to Heather Kuykendall for inclusion in the GWAC metrics. (Ongoing)

Communications Planning

Lynne Kiesling is the next author to publish in the Smart Grid News on April 8. Philip Bane requested a 250-word article regarding the Financial Benefits Paper and similar articles for the other benefits papers. David Hardin recommended distilling the GWAC Framework document, to publish a series about each section of the paper in the Smart Grid News. David Hardin and Rik Drummond will lead this effort.

Mike Oldak (EEI) suggested a possible series of EEI hosted e-panels with GWAC members on smart grid interoperability topics.

Action Items:

Lynne Kiesling is to write the article for the Smart Grid News. (Due 7 Apr 08)

David Hardin and Rik Drummond are to develop a plan for a series of articles about each section of the framework document for publication in the Smart Grid News. (Due 18 Apr 08)

Ruth Taylor is to prepare 250 word abstract articles introducing each of the benefits papers and work with Smart Grid Newsletter (and others) to get the word out on their development.

Steve Widergren is to follow-up with Mike Oldak on EEI hosted e-panels related to smart grid interoperability. (Due 30 Apr 08)

Summary of New Action Items

Item	Owner	Due Date
Heather Kuykendall is to coordinate logistics for the April web meeting with council members.	Kuykendall	11 April 08
Heather Kuykendall is to provide access to SharePoint for Jerry FitzPatrick.	Kuykendall	11 April 08
Steve Widergren to coordinate with NIST on a follow-up session during the 19 May 08 GWAC meeting.	Widergren	9 May 08
Ron Ambrosio, Joe Bucciero, Erich Gunther, David Hardin and Ron Jarnagin are to propose revisions to the GWAC Horizon Goals. Consideration is to be given to ensure alignment with the recently approved Mission and Structure document.	Ambrosio, Bucciero, Gunther, Hardin, and Jarnagin	25 April 08
Jarnagin and Widergren are to draft a background document outlining the roles and responsibilities of a new Council structure.	Jarnagin and Widergren	18 April 08
GWAC team members to develop formation proposals for building to grid, industrial to grid, home to grid, interop policy, and NIST framework external committees. Jarnagin and Widergren to assist.	Council members, Jarnagin, and Widergren	18 April 08
Erich Gunther is to develop a proposal for a field communications network committee.	Gunther	18 April 08
Stephanie Hamilton is to develop a proposal for an inter-T&D operations committee.	Hamilton	18 April 08
Stephanie Hamilton, Erich Gunther, Nora Brownell, Joe Bucciero, and Jack Mc Gowan are to draft a checklist and letter of support template. Steve Widergren is to provide administration support.	Hamilton, Gunther, Brownell, Bucciero, Mc Gowan, and Widergren	24 April 08
Steve Widergren is to forward the 2-page overview of the Santa Fe Community College smart grid coursework that was supported by GWAC.	Widergren	28 March 08

Council members are to forward recommendations for volunteers to the GWA Interoperability Team to Ron Ambrosio.	Council members	18 April 08
Steve Widergren is to add more GWA liaison discussion to the next meeting agenda.	Widergren	25 April 08
Anto Budiardjo, Jack Mc Gowan, and Steve Widergren are to consider a description of GWAC organization extensions in a plenary session.	Budiardjo, Mc Gowan, and Widergren	11 April 08
Jack Mc Gowan and Steve Widergren are to propose a nominations committee for the GridWise Applied Awards.	Mc Gowan and Widergren	30 April 08
Ron Jarnagin is to form a planning committee for Grid Interop '08.	Jarnagin	18 April 08
Ron Jarnagin to consider migrating the call for papers process to one or more professional societies.	Jarnagin	1 July 08
Steve Widergren is to forward the NEMA white paper on levels of intelligence to the Council.	Widergren	28 March 08
Council members are to forward their outreach activities to Heather Kuykendall for inclusion in the GWAC metrics.	Council members and Kuykendall	Ongoing
Lynne Kiesling is to write the article for the Smart Grid News.	Kiesling	7 Apr 08
David Hardin and Rik Drummond are to develop a plan for a series of articles about each section of the framework document for publication in the Smart Grid News.	Hardin and Drummond	18 Apr 08
Ruth Taylor is to prepare 250 word abstract articles introducing each of the benefits papers and work with Smart Grid Newsletter (and others) to get the word out on their development.	Taylor	1 July 08
Steve Widergren is to follow-up with Mike Oldak on EEI hosted e-panels related to smart grid interoperability.	Widergren	30 Apr 08