

# IEEE Power Engineering Society Entity Annual Report

2012

**Entity: Intelligent Grid Coordinating Committee**

**Chair: Steve Pullins**

**Vice-Chair: Doug Houseman**

**Secretary: TBD**

## **1. Significant Accomplishments:**

Continued the work on GridVision 2050, the 4 society set of white papers on where the industry is going. Other societies working on this are: Communications, Computer, Controls and Standards. The draft of the document was completed before Christmas and put out for comments, publication is expected in May/June 2013.

Started work on an ICAID for DC in the home, working on how to integrate distributed generation, new DC based consumer electronics and appliances with electric cars, and potentially local storage. Approval of the ICAID is expected in June of 2013, with an organizational meeting at the PES GM in Vancouver. The goal of the ICAID is to lay out a research and standards roadmap for DC integration into the grid, homes and businesses.

Started work on a IEEE Standards Roadmap for Smart Grid, the first piece, a survey of all the existing committees in PES and their Sub-committees was sent out prior to the end of the year, this is a foundational piece to determine where the gaps in coverage are in the expected technologies that will support the grid. The list of technologies was primarily drawn from the GridVision 2050 document. The next update on the project will be at the IGCC meeting at the GM in Vancouver.

Continued the development of new smart grid related tutorials, completing 4 more in the tutorial topology in 2012.

Continued giving tutorials, with IGCC members using the IGCC developed materials to give 11 unique tutorials, a total of 67 times, with more than 600 people in attendance.

## **2. Benefits to Industry and PES Members from the Committee Work:**

The GridVision 2050 document offers the industry a clear vision of the future, with areas where work will pay off in the future and where work may not pay off in the future. It integrates many views from different organizations and simplifies the future view into something that can be discussed with non-technical people, including regulators,

legislators, teachers, and lay people. This offers an ability to communicate the impact of the changes on everyday life for people and helps them understand what will change.

The ICAID will offer IEEE members an opportunity to get in early on a major piece of work, that may drive huge industry innovation and change, in addition to giving them an outlet to create papers and research projects around.

The roadmap offers PES and Industry members a chance to offer comments on future standards needed and to get a consolidated view of where effort is needed to commercialize the ideas that are driving the future.

### **3. Benefits to Volunteer Participants from the Committee Work:**

IGCC volunteers have had more than 50 speaking opportunities on the Roadmap and the GridVision project, helping them both raise the visibility for IEEE and to raise the visibility of the IEEE PES work. The work has also created a feeling that the IGCC is back on the leading/bleeding edge of grid modernization, giving volunteers a leg up in their own companies.

Because of the work on the roadmap, several volunteers are now laying out how they want to lead the effort on specific future standards, giving them a chance to become deeply embedded in the work ahead of their peers.

The ICAID will provide volunteers, with a base to work on leading/bleeding edge ideas and a sounding board for those ideas, which should both lead to excellent future papers and lead to possible future patents, and jobs.

### **4. Recognition of Outstanding Performance:**

The most outstanding work was done by the members of the GridVision team:

Georges Simard, Georges Simard Smart Grid Inc.

Grant Gilcrest, EnerNex

Geza Joos, Mc Gill University, Canada

Roy Alexander, RWA Engineering LLC

Chad Abbey, Hydro-Quebec / IREQ

The ICAID Development team:

Ernie Wiebe, Ernie Wiebe Consulting, Inc.

The Roadmap Team:

Steve Pullins, Horizon Energy Group

Erich Gunther, EnerNex

Jeff Nelson, TVA

Pat Ryan, PES

These people made most of the work during the year possible.

**5. Coordination with Other Entities (PES Committees, CIGRE, standards, etc.):**

IGCC coordinated with most of the PES committees and subcommittees on the Roadmap, with CIGRE, IEC, EPRI, DOE, IEEE Computer Society, IEEE Communications Society, the IEEE Controls Society, the IEEE Vehicle Systems Society, the Standards Association and a host of others on the Grid Vision – a total of 90 organizations were included in workshops, review rounds and other activities related to the GridVision draft. Another 80 were to be offered review opportunities on the final draft.

The DC in the Home ICAID if approved will continue that coordination.

**6. New Technologies of Interest to the Committee:**

There are more than 200 technologies in the Roadmap survey, all of them are “of interest” to the IGCC.

**7. Problems and Concerns:**

The IGCC has low attendance at meetings from the various Committees and subcommittees that we should be coordinating with. In many cases the coordination is done by one person talking to someone they know in a group, rather than to a liaison, this can add significant time in coordination efforts and can end up with PES looking disjointed. With IEEE handing the Smart Grid effort back to PES and PES handing it mostly back to the IGCC, liaison and coordination are going to be critical if PES wants to be a leader in this area.

**8. Significant Plans for the Next Period:**

- 1) Complete the ICAID on DC in the Home
- 2) Complete the Smart Grid Standards Roadmap
- 3) Launch a paper drive for DC related papers and research projects
- 4) Gain liaisons from all committees and sub-committees in PES
- 5) Complete 4 to 6 more smart grid tutorials
- 6) Create a smart grid professional certification based on the tutorials.

**Submitted by: \_\_**

**Date:**