

# Smart Energy Data Repository

## Industry Connections Activity Initiation Document (ICAID)

### Version: 1.1, 28 August 2012

#### Instructions

- Instructions on how to fill out this form are shown in red. It is recommended to leave the instructions in the final document and simply add the requested information where indicated.
- **Shaded Text** indicates a placeholder that should be replaced with information specific to this ICAID, and the shading removed.
- Completed forms, in Word format, or any questions should be sent to the IEEE Standards Association (IEEE-SA) Industry Connections Committee (ICCom) Administrator at the following address: [industryconnections@ieee.org](mailto:industryconnections@ieee.org).
- The version number above, along with the date, may be used by the submitter to distinguish successive updates of this document. A separate, unique IC Activity Number will be assigned when the document is submitted to the ICCom Administrator.

#### 1. Contact

Provide the name and contact information of the primary contact person for this IC activity. Affiliation is any entity that provides the person financial or other substantive support, for which the person may feel an obligation. If necessary, a second/alternate contact person's information may also be provided.

**Name:** Jinjun XIONG

**Email Address:** jinjun@us.ibm.com

**Phone:** 1-914-945-3676

**Employer:** IBM Thomas J. Watson Research Center

**Affiliation:** IBM

#### 2. Type of Activity

Specify whether this activity will be entity-based (participants are entities, which may have multiple representatives, one-entity-one-vote), or individual-based (participants represent themselves, one-person-one-vote).

Entity-Based.

### **3. Purpose**

#### **3.1. Motivation and Goal**

Briefly explain the context and motivation for starting this IC activity, and the overall purpose or goal to be accomplished.

The world has seen a significant landscape change in the area of power industry, and the significant infusion of capital into building a smarter grid world-wide is a manifestation of the importance of a secure, reliable, economical, and environmentally sustainable energy system to nations and human-kind alike. Innovations across diverse industrial, academia, and regulatory bodies are required to transform existing aging grid infrastructure and business-as-usual practices to a modern 21st-century optimized energy system.

One of the fundamental impediments to innovation in the power industry is, however, the lack of access to quality data to incubate, stimulate, test, validate, and refine new ideas. Reasons cited for this lack of access include the proprietary nature of those power industry data and the sensitivity of those data as they are related to national critical infrastructures.

In contrast, vast research areas (such as biomedical and data mining) have benefited from having an openly-accessible data repository that helped to advance the frontier of research significantly. How can we learn from their success for the power industry to foster innovation? Thus the genesis of this proposal: creating "Smart Energy Data Repository" and the associated Industry Connection group.

#### **3.2. Related Work**

Provide a brief comparison of this activity to existing, related efforts or standards of which you are aware (industry associations, consortia, standardization activities, etc.).

There is no such activity available for the power industry yet.

#### **3.3. Potential Markets Served**

Indicate the main beneficiaries of this work, and what the potential impact might be.

The entire eco-systems related to electrical grids and energy systems

### **4. Estimated Timeframe**

Indicate approximately how long you expect this activity might take to achieve its proposed results (e.g., number of weeks/months/years).

Two years to develop and launch the data repository.

Expected review/completion date: 08/2014.

### **5. Proposed Deliverables**

Outline the anticipated deliverables and output from this IC activity, such as documents, proposals for standards, conferences and workshops, databases, computer code, etc., and indicate the expected timeframe for each.

The specification and prototype implementation of a world-class data repository to enable open and collaborative Smart Energy Research across diverse industrial, academia, and regulatory bodies. Specifically, this will provide (but not be limited to)

- A diverse set of data related to smart grid and energy research, such as grid topologies, load data, smarter meter data, generation characteristics etc
- Description of a set of common data format
- Tools to convert data in different formats
- Governance rules to administer the data and grant access to the data
- Access mechanism of the data

## **6. Funding Requirements**

Outline any contracted services or other expenses that are currently anticipated, beyond the basic support services provided to all IC activities. Indicate how those funds are expected to be obtained (e.g., through participant fees, company sponsorships, government or other grants, etc.).

Activities such as meetings and discussion phone calls will be self-funded by all participants. The long-term operation mode and funding mechanism will be an outcome of this activity group.

## **7. Management and Procedures**

### **7.1. IEEE Sponsoring Committee**

Indicate whether an IEEE sponsoring committee of some form (e.g., an IEEE Standards Sponsor) has been identified to oversee this activity and its procedures.

**Has an IEEE sponsoring committee been identified?:** No

If yes, indicate the sponsoring committee's name and its chair's contact information, and skip the remaining parts of this section (skip 7.2 and 7.3, below).

**Sponsoring Committee Name:** Committee Name

**Chair's Name:** Full Name

**Chair's Email Address:** who@where

**Chair's Phone:** Number, including country code

Additional sponsoring committee information, if any.

### **7.2. Activity Management**

If no IEEE sponsoring committee has been identified, indicate how this activity will manage itself on a day-to-day basis (e.g., executive committee, officers, etc).

Management will be in accordance with Policies & Procedures developed from ICCOM Baseline Entity Procedures.

### **7.3. Procedures**

If no IEEE sponsoring committee has been identified, indicate what documented procedures will be used to guide the initial operations of this activity (e.g., the *Industry Connections Activity Baseline Procedures*).

Entity Procedures developed from ICCOM Baseline.

## 8. Participants

### 8.1. Stakeholder Communities

Indicate the stakeholder communities (the types of companies or other entities, or the different groups of individuals) that are expected to be interested in this IC activity, and will be invited to participate.

Electric Utilities

Universities doing research in electric utility products or analytics

Vendors/manufacturers of electric utility data analytics products

### 8.2. Expected Number of Participants

Indicate the approximate number of entities or individuals expected to be actively involved in this activity.

15 - 20 entities within the first 1 and 2 year's activity period.

### 8.3. Initial Participants

Provide a list of the entities or individuals that will be participating from the outset. It is recommended there be at least three initial participants for an entity-based activity, or five initial participants (each with a different affiliation) for an individual-based activity.

Use the following table for an entity-based activity:

<b>Entity</b>	<b>Primary Contact</b>	<b>Additional Representatives</b>
Entity Name	Contact Name Email Address Phone Number	Name, Email Address Name, Email Address
IBM	Jinjun Xiong <a href="mailto:Jinjun@us.ibm.com">Jinjun@us.ibm.com</a> 1-914-945-3676	
Vermont Electric Coo	Jacek Szamrej <a href="mailto:jszamrej@vermontelectric.coop">jszamrej@vermontelectric.coop</a>	
Pacific Gas & Electric	Brian Fitch <a href="mailto:BFR6@pge.com">BFR6@pge.com</a>	
Cobb EMC	Roque Marinho	
State University of New York at Stony Brook	Eugene Feinberg <a href="mailto:Eugene.Feinberg@sunysb.edu">Eugene.Feinberg@sunysb.edu</a> 1-631-632-7189	