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EPRI Smart Grid Demonstration Advisory Meeting

Matt Wakefield
Program Manager – Smart Grid Demo's
March 4th, 2010

Today's Agenda

8:45	Smart Grid Demo Update
9:30	DER Architecture - IBM
10:00	Break
Panel Session – Architect, Functions & Challenges Integrating DER	
10:30	FE / BPL Global
11:00	Con Ed / Infotility
11:30	AEP / S&C
12:00	Lunch
1:00	PNM / Sharp Laboratories
1:30	KCP&L / Siemens
2:00	EDF / Watteco
2:30	Break
3:00	Panel Discussion
4:30	Closing / Complete Survey
5:00	Adjourn

Survey Results from last meeting

- Overall, presentations were well received
- Sandia National Lab tour – positive feedback
- Tech Transfer Preferences
 - 1/3 prefer reports
 - 1/3 prefer webcasts
 - 1/3 prefer meetings at host-sites
- Strong interest in Cost Benefit Analysis & Sharing of lessons learned
- More discussion among presenters
- Longer breaks for networking

Smart Grid Demo Update

- Meeting Format Change
 - Project update via webcast (2-weeks ago)
 - Smart Grid Application Panel during meeting
 - Architectural Considerations – Aligns with many of the host-sites
 - Provide feedback on this approach (Survey)
- Brief review of Project Plan & Deliverables
- Host-Site Selection Update
- Upcoming Dates
- Handouts (Survey & Logical Interface Diagram)

2008 & 2009 – Laying the Smart Grid Foundation 2010 & Beyond – Integration, Collaboration....

- Deliverables & Reports Lay the Foundation for 2010-2013 (~30)
 - ✓ Your Smart Grid **Reference Library**
 - ✓ Tools and Methodologies to Support SG Demo's
 - ✓ News and Technology Tracking Updates
 - ✓ Host Site Updates
- Fall 2010, our focus shifts
 - Collaboration (18 members)
 - Prioritize Combined Research
 - Lessons Learned & Gap Identification



	2008	2009	2010	2011	2012	2013
1. Analytics	X	X	X	X	X	X
2. Critical Integration Technologies and Systems	X	X	X	X	X	X
3. Smart Grid Demonstration Host-Site Selections	X	X	X	X	X	X
3. Smart Grid Demonstration Research		X	X	X	X	X
4. Technology Transfer	X	X	X	X	X	X

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Task 1 – Analytics Deliverables

Task	Prod ID	Description	Availability
1.1	1020312	Regional Profiles on Drivers, Barriers, and Activities for DER Integration	March
1.2	1020313	Distributed Resource Integration Framework	Now
1.3	1020385	DER Operations and Planning Tool Analysis	Now
1.4	1016905	The Green Grid Report – Carbon Emissions Reductions enabled by a Smart Grid	Now
1.5	1020342	Methodological Approach for Estimating Benefits & Costs of Smart Grid Demonstrations	Now
1.6	1018945	Smart Grid DER Project Assessment	Now

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Task 2 – Critical Integration Tech. Deliverables

Task	Prod ID	Description	Availability
2.1	1020340	Architecture Reference Guide for DER Integration	Review Today (April)
2.1	1020343	Utility Reference Guide to NIST Smart Grid Roadmap	Now
2.2	TBD	Development of Data and Information Exchange Model for DER	March
2.3	1020311	Decision Support Tool For DR Trigger System–Concept	April
2.4	1020314	Aggregation Methods and Tools for DER Integration	March
2.5	1020432	Concepts to Enable Advancement of Distributed Energy Resources	Now
2.6	1019584	Summary of Potential Use Cases for Distributed Solar (PV) Integration	Now
2.6	1020213	TVA / BTES Smart Water Heater Technology & Lessons Learned	Now
2.6	1020674	TVA / BTES Smart Water Heater Pilot: Summary of Data Analysis and Results	Now
2.6	1020415	The State of Smart Grid Technology	March

Task 3 – Smart Grid Demo Host-Sites

	2-Page Project Overview	Project Description	Progress Report (2 per year)
American Electric Power (AEP)	1020226	1020188	1020354
Con Edison	1020227	1020190	1020355
Electricité de France (EDF)	1020228	1020191	July 2010
ESB Networks	In Review	In Publishing	July 2010
FirstEnergy	1020229	1020189	1020352
PNM Resources	1020230	1020187	1020353

Task 4 – Technology Transfer

Task	Prod ID	Description	Availability
4		Workshops / Webcasts / Newsletters •Three Meetings/year & periodic webcasts •Newsletter updates ~8-10 weeks	Ongoing
4		Smart Grid Web-Site, Use Case Repository, Project Tracking: www.smartgrid.epri.com	Now
4	1018926	Pre-Workshop proceedings - Active Distribution System Management Integrating DER, 12/9/2008	Now
4	1020303	Smart Grid International Projects (currently Germany)	Now
4	1020214 1020566	Strategic Intelligence Update – Smart Grid Conferences & Events	Now
4	1020384	Integration of System Project Results and IntelliGrid Architecture into Interoperability Knowledge Base	Now

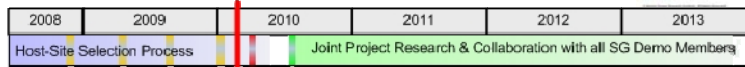
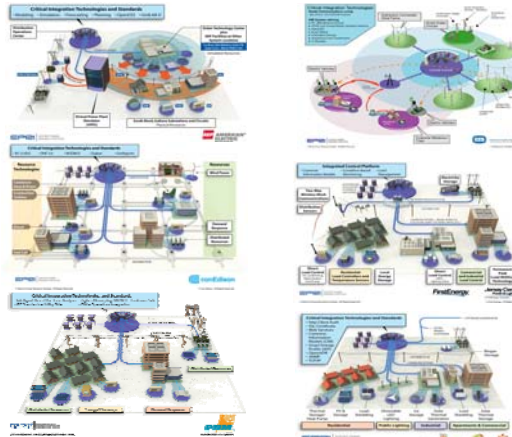
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Smart Grid Demonstration Host-Sites

- 6 Host Sites Identified
- 2 new projects under review
- All projects approved in August
- All members gain benefit of all projects



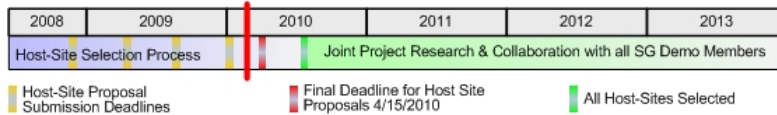
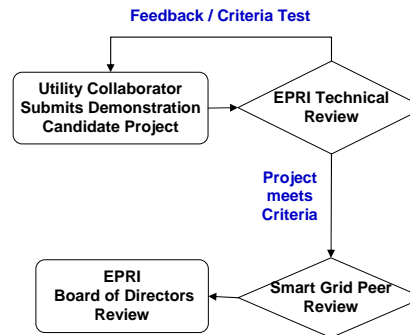
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EPRI Smart Grid Demo Host-Site Selection Update: 2 New Host Sites

- Host-Sites in Review Cycle
 - KCP&L Host-Site #7
 - Exelon Host-Site #8
- All host-site proposals must be submitted by April 15.
- All host sites to be Identified by August 2010



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Upcoming Meetings



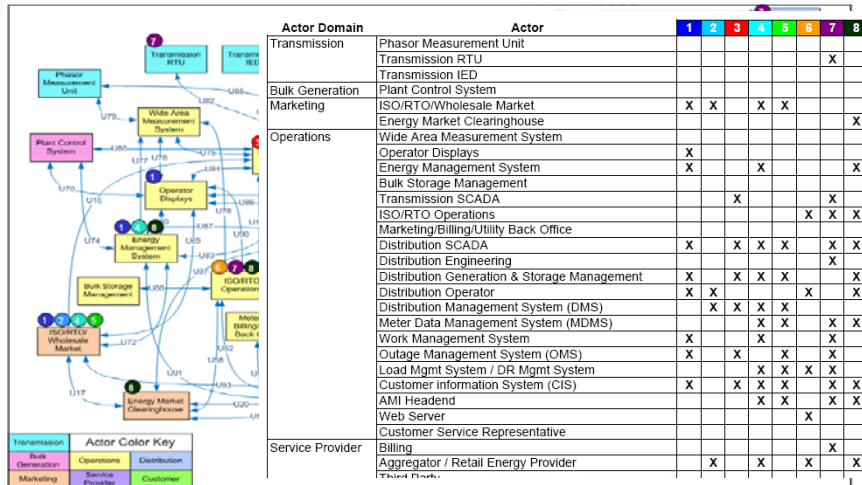
- March 11th: Exelon Host-Site Peer Review Webcast
- March 24 & 25: Communications Council Meeting in San Diego – Smart Grid Communication Strategies for Consumers
 - Contact Jeremy Dreier (jdreier@epri.com)
- June 9-11, EDF, France (International Collaboration)
 - Note: June 7 & 8, CIRED meeting in Lyon France
 - June 9: EU ADDRESS Meeting - same venue as our meeting
 - June 10-11: Smart Grid Demo Meeting, PREMIO Update & EDF Lab Tour
 - **US Speakers Wanted** – Let Matt know and put on Survey Form
- Fall Meeting (Con Edison, New York City, Date - TBD)
 - **Key Strategy meeting**
 - All host sites will be known
 - Focus on selecting and prioritizing collaboration among 18 members

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Panel Session Handout – for discussion



Unified Logical Interface Diagram* - Mapped to Key System Interfaces for Integrating Distributed Energy Resources
* Unified Logical Interface Diagram from NISTIR 7628 - Smart Grid Cyber Security Strategy & Requirements, Feb. 2010

Questions?

Together...Shaping the Future of Electricity