Thailand - Japan Workshop
On
Smart Community in Thailand

Current Status and action plan of utility sector on SG/SC in Thailand
(PEA case)
Presented By
MR. Weerachai Koykul
Deputy Governor (Network Operation)
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CURRENT STATUS AND NEXT STEP FOR PEA SMART GRIDS INITIATIVE

Before Smart Grid:
One-way power flow, simple interactions

Two-way power flow, multi-stakeholder interactions

Adapted from EPRI Presentation by Joe Hughes
NIST Standards Workshop
April 28, 2008
• Road mapping and Feasibility Study PEA Smart Grid and AMI Project (PEA already hire consulting service from CU)

Scope of Work for consulting service (Time frame 12 Months):
• Create Detailed Methodology for the Development of PEA Smart Grids Roadmap and Feasibility Study
• Characterize Existing and Planned Infrastructure
• Form PEA Smart Grids Policies, Strategies and a Shared Vision
• Evaluate Gaps Between Current Positions and Vision
• Formulate PEA Smart Grids Roadmap
• Feasibility Study of PEA Smart Grid Project Phase I
• Implementation Plan of PEA AMI Pilot Project
• Feasibility Study of AMI Project Phase I
Project Team Organization (as Proposed by CU)
• **Initial PEA Smart Grids Definition**
  
  – PEA has perceived the Smart Grids as a holistic enterprise system encompassing technology processes and services to deliver electrical power efficiently, reliably, cost effectively and securely.
  
  – PEA has perceived its Smart Grids initiative as an Endeavour to create a world-class electricity delivery systems that adopts best practices and the best technology not only to support the needs of its customers but to facilitate government policy with respect to renewable resources, fuel efficiency and CO2 emissions. PEA intends to be at the forefront of the transformation of the electrical delivery system in Thailand by enacting Smart Grids integration plans and subsequently make investments in the Smart Grids.
  
  – In line with government policies, PEA will increase the ability of renewable resources to produce electrical energy and will engineer distribution system changes and adopt new modes of operation to incorporate these new resources.
PEA’s Smart Grids Definition, Mission and Vision

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  “Electricity networks that intelligently integrates generators and consumers to efficiently deliver electricity which is sufficient capacity and coverage area accessible, safe, economic, reliable, efficient, and sustainable.”
SOME HIGHLIGHT IT’S RELATED PROJECT IN PEA
An integrated approach to evaluate overall performance in terms of efficiency, reliability, and availability
PEA- Distribution Dispatching Center Project

System Management Center (in operation in Y2005)

1st Stage Area Distribution Dispatching Center (in operation since Y2005)

2nd Stage Area Distribution Dispatching Center (On-going Project)
DDC.2 Project (On-going Project)
DDC.2 – Project (SCADA End to End Testing)
DDC.2 – Project (RTU & UHF Radio Installation and Testing)
PEA’s GIS2.0-Project

Planning

Design System

OMS

SCADA/DMS

GIS

Map productions.
PEA’s AMR Project

Diagram showing the structure of the AMR (Advanced Metering Reference) project, with connections between MultiDrive Manager, Central Database Management Server, Communications Server, and Metering Devices. The diagram also illustrates the communication network and PEA Customers, who can monitor through a web application.
Conclusion: PEA intends to implement The future Grid to support smart grid concept.