ENERGY EFFICIENCY POLICIES IN ASEAN REGION

Energy Efficiency Policy Dialogue & Energy Efficiency Capacity Building Workshop

Regional Harmonization in Power Distribution Systems

Bek Chee Jin
IPEEC/WEACT Conference, 20 October 2011
The Dharmawangsa, Jakarta, Indonesia
Power System

TERMINAL STATION

SUBSTATION

POWER PLANT

69/115 kV CUSTOMER

69, 115 kV

230, 500 kV

220/380 V CUSTOMER

12, 24 kV CUSTOMER

220/380 V
Harmonization of Power Distribution Systems: Lower Mekong Sub-region (LMS)

Thailand
Cambodia
Lao PDR
Vietnam
Strategic Considerations

- 4 countries, different cultures, different languages
- different stages of economic development, but
  - Strong interactions
  - Strong leverage effects
- different stages of development of power distribution system
  - Different level of availability, reliability and quality
- Similar geographical environment and conditions
Building a Collaborative Platform

- Solutions
- Role model
- Peer Pressure
- Involvement
- Ownership
ICA’s Role in Harmonization Program

A CATALYST to:

Initiate . . . . . loss reduction programs
Facilitate . . . . . regional collaboration
Drive . . . . . . . harmonization processes
Major Milestones and Achievements

2005

Feasibility Study

- Program inception
- MOU: 5 utilities
- Kick-off feasibility study
Major Milestones and Achievements

- Feasibility study completed
- Strategic roadmap developed
Strategic Roadmap at a Glance

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A - Formation of TWG
B - Development of Handbook
C - Dissemination Workshop

Track 3 was an initiative of PEA in cooperation with Hanoi Power Corporation and supported by ICASEA. Hence, no TWG was formed.
Major Milestones and Achievements

- 2005: Feasibility Study
- 2006: Roadmap Development
- 2007, 2008: Building Capacity

- Training courses
- Formation of Technical Working Groups
Major Milestones and Achievements

2005
- Feasibility Study

2006
- Roadmap Development

2007, 2008
- Building Capacity

2009, 2010
- Codes & Standards

- MOU: +4 Utilities
- Harmonized Technical Specifications and Technical Handbook
  - Transformers
  - Power Cables
- Workshops
- EVN Hanoi PC and EDL adopts handbook as guide for procurement of new transformers
Major Milestones and Achievements

- Developed two series of handbooks
  - Distribution Transformer
  - Power Transformer

- Included “Technical Specifications” for four utilities companies
Major Milestones and Achievements

- **2005**: Feasibility Study
- **2006**: Roadmap Development
- **2007, 2008**: Building Capacity
- **2009, 2010**: Codes & Standards
- **2011**: Conversion & Implementation

- MOU: +1 Utilities
- Expansion to Philippines
- Technical Working Group for conversion of overhead power lines to underground cables
- Training and site visits for underground and submarine cabling
Major Milestones and Achievements

- Power Cable Handbook (*Completed*)
- Cable Installation (*to complete by end-2011*)
Senior Management Program
Structure/Policies/Processes for Reliable & Quality Power
Singapore Power, 13-14 May 2009

On-site Visit

Strategic Partners
Undergrounding the Danang Power Dist Network
Danang, Vietnam – Feb 2011

Participants
Discussion
Underground Cabling
Technical Working Group Meeting
Bangkok, Ho Chi Minh City – July 2011
Supply Chain Participation
Utility Partners in LMS Harmonization Program

Thank You