



**MINISTRY OF INDUSTRY AND TRADE  
ELECTRICITY REGULATORY AUTHORITY OF VIET NAM**

# **ASEAN POWER GRID & AERN**

**Presentation to  
The 5th Annual International Forum  
“Regional Energy Alliance: Regulators' Insights”**

**October 1<sup>st</sup>, 2015**

# Outline

*Session 1. AERN Introduction*

*Session 2. Orientation for the cooperation of AERN Member*

*Session 3. What AERN has done and accomplishment so far?*

*Session 4. AERN's Cooperation with HAPUA.*

*Session 5. AERN's Way forward on ASEAN Power Grid*

*Session 6. AERN Plan*

# Session 1: AERN Introduction

## 1. Milestones

- **28th SOME & AMEM Meeting** agreed to support the project of ADB to establish an ASEAN Energy Regulators Network
- **30<sup>th</sup> AMEM, 12 Sep 2012:** “Progress on the Establishment of AERN” was reported by Thailand, as Chair of AERN.
- **15 Mar 2013: 2nd AERN Meeting, Bangkok, Thailand**  
5 countries participated: Cambodia, Malaysia, Singapore, Vietnam and Thailand
- **Jun 2013: Final Draft of the TOR** was circulated to all AERN Members for approval.
- **25 Jun 2013: 31<sup>st</sup> SOME, Bali, Indonesia** - Highlights & recommendations of the 2<sup>nd</sup> AERN Meeting and relevant follow-up activities were reported.
- **The 3<sup>rd</sup> AERN Meeting** was held on 30 May 2014, hosted by Thailand, via teleconference.
- **The 4<sup>rd</sup> AERN Meeting** was held on 27-28 Nov 2014, hosted by Viet Nam.  
6 countries participated: Brunei, Cambodia, Malaysia, Indonesia, Viet Nam and Thailand.
- **The 5<sup>rd</sup> AERN Meeting** was held on 7 April 2015, hosted by Viet Nam, via Videoconference.

# ***Session 1: AERN Introduction***

## **2. Objectives**

1. Exchanging knowledge and experience in regulatory issues.
2. Providing a good platform for the energy regulators to strengthen communication channels to promote mutual understanding of energy regulations of Member States and regional economic development.
3. Collaborating closely with HAPUA and ASCOPE and their relevant working groups in the harmonization of regulatory frameworks and technical standards to enable effective operations of APG and TAGP.

# *Session 2: Orientation for the cooperation of AERN Member States*

## **Cooperation of AERN member states**

1. Establish interconnecting arrangements in AERN member states in the fields of energy and utilities for electricity, natural gas and water within AERN member state through the ASEAN Power Grid and Trans- ASEAN Gas Pipeline and Water Pipeline, and promote cooperation in energy efficiency and conservation, as well as the development of new and renewable energy resources.
  2. Accelerate the development of the ASEAN Power Grid Interconnection projects
  3. Promote mutual understanding and benefits on Energy Regulation and Economic Development.
- Create the group discussion, e.g., web portal, on energy regulatory issues among ASEAN Member States.
  - Arrange the meeting among ASEAN Member States at least once a year to update situations, works, development, and other matters related to regulatory issues.

# *Session 2: Orientation for the cooperation of AERN Member States*

## **Cooperation of AERN member states (cont)**

4. Enhance sharing and exchanging information on energy regulation among ASEAN Member States.
  - Conduct further study to support the work of HAPUA in order to address obstacles to cross-border trade and interconnection issues, including taxation and tariff for cross-border transaction, and regulation on public private participation in APG Projects.
  - Exchange information and experiences on renewable energy, power market, new technologies and other interesting & related issues concerned on energy regulation.
  - Share information and a case study on demand response as well as roles of energy regulators.
5. Conduct capacity building among ASEAN Member States.
  - Conduct capacity building/ training programs to strengthen roles and responsibilities of ASEAN energy regulators once or twice a year.
  - Arrange International Forum to exchange and share up-to-date information on energy regulatory issues or other related matters on energy with ASEAN Member States and public twice a year.

# *Session 3: What AERN has done and accomplishment so far?*

## **AERN work plan and outcomes**

1. Focus on knowledge management in terms of international best practices, including the collection, compilation and development of energy regulatory data among ASEAN Member States, HAPUA, and ASCOPE.
2. AERN promotes the harmonization of energy regulatory issues in the region under Programme Area No.8: Regional Energy Regulation (RER) in order to provide strategic support to the implementation of action plans of APG and TAGP projects. Regional collaboration in TAGP and APG projects allows the optimization of the region's energy resources for greater energy security.
3. The energy regulatory bodies have focused on enhancing cross-border interconnection trade of electricity and connecting the national power grids of ASEAN Member States.

## *Session 3: What AERN has done and accomplishment so far?*

### **AERN work plan and outcomes (cont)**

4. AERN is looking to achieve a stable energy security in the region. In the medium-term, AERN promotes: (i) effective unbundling of transmission networks and (ii) sufficient interconnection capacity by implementing fair cross-border transactions and ensuring non-discriminatory access to regional networks.
5. Established two AERN Working Group (AWG) together with HAPUA Working Group and APGCC to work on Cross-border interconnection and Regulatory harmonization.



# Session 3: What AERN has done and accomplishment so far?

## AERN work plan and outcomes (cont)

### **AWG1: Technical and Regulatory Harmonization (chaired by Thailand)**

#### **Objectives and Action Plan**

- Conduct further study in order to establish a guideline on technical and regulatory harmonization for ASEAN Power Grid (APG) and to follow up the works of HAPUA and provide support on technical and harmonization as needed.
- Providing comments on the project completion reports to HAPUA Working Group 2 (HWG 2).
- April, 2015: Provide options, recommendation and solution then Conduct the study and guidance on the Cross – Border Interconnection and Regulation Harmonization.
- October, 2015: International Forum 2015; Capacity Building and Meeting at Bangkok, Thailand. Then Report of 1st AWG1 to AERN :
  - \* Submit the draft on the AWG1 TOR to AERN for endorsement.
  - \* Report Way forward for AWG1 to AERN.

# *Session 3: What AERN has done and accomplishment so far?*

## **AERN work plan and outcomes (cont)**

### **AWG 2: Legal and Commercialization (chaired by Viet Nam)**

#### **Objectives**

- Providing comments on the project completion reports to HAPUA Working Group 4 (HWG 4)
- Developing and sharing a common database of regulations/legal documents on power sector of ASEAN member countries/states
  - ❑ Comprises regulations on following areas:
    - Electricity tariffs/charges
    - Power Purchase Agreement
    - Technical regulations
    - Other related regulations: to be considered
  - ❑ All gathered regulations/legal documents will be transferred to English and shared among ASEAN member countries/states

# ***Session 4: AERN's Cooperation with HAPUA***

## **AERN's Cooperation with HAPUA**

AERN action plan need to consistent with HAPUA input for success of APG project are as follow:

- ▶ Strategy 1: Accelerate the development of the ASEAN Power Grid Interconnection projects
- ▶ Strategy 2: Preparation of the Formation of the ASEAN Power Grid Institutions
- ▶ Strategy 3: Synchronize Power Development Plan and optimize the generation of electricity
- ▶ Strategy 4: Encourage and optimize the utilization of ASEAN resources, such as, funding, expertise and products to develop the generation, transmission, and distribution sectors.

# ***Session 4: AERN's Cooperation with HAPUA***

## **AERN's Cooperation with HAPUA (cont)**

Creating of AERN working groups to support the work of HAPUA:

- ✓ **AWG1: Technical and Regulatory Harmonization** be chaired by Thailand and Work closely with HAPUA Working Group 2 (HWG2)
- ✓ **AWG2: Legal and Commercialization** be chaired by Vietnam and Work closely with HAPUA Working Group 4 (HWG4)

# *Session 5: AERN's Way forward on ASEAN Power Grid*

## **AERN's Way forward on APG**

- ▶ Support in conducting study and identifying areas where ASEAN resources can be fully utilized to benefit the ASEAN region
- ▶ Studying more on the ASEAN Primary Energy Resources for Power Generation, and Identify and list HAPUA Experts to support study for APG
- ▶ Support in conducting studies to address barriers to interconnections, cross-border trade and investments by the 5 HAPUA WGs, including: harmonization of legal and regulatory framework for bilateral & cross-border power interconnections and trade, formulation of institutional and contractual arrangements for cross-border trade to include taxation, tariff and Third Party Access (Wheeling charges), and Study on Public Private Partnership among ASEAN Power Utilities/Authorities.

# *Session 5: AERN's Way forward on ASEAN Power Grid*

## **AERN's Way forward on APG**

- ▶ Support in conducting study and identify areas where ASEAN resources can be fully utilized to benefit the ASEAN region.
- ▶ Studying more on the ASEAN Primary Energy Resources for Power Generation,
- ▶ Identify and list HAPUA Experts to support study for APG
- ▶ Identify key contents and relevant peers' working groups in HAPUA
- ▶ Identify related key findings from HAPUA's studies
- ▶ Propose regulatory guidelines for power grid codes on cross-border implementation
- ▶ Coordinate with HAPUA to develop a joint calendar and channels of communication
- ▶ Report the outcomes
- ▶ Propose approaches to interconnection methods due to the differences in voltage levels among countries

# *Session 5: AERN's Way forward on ASEAN Power Grid*

## **AERN's Way forward on APG**

- ▶ Propose regulations of technical standards for connecting equipment and operating power grid
- ▶ Propose guideline for implementing interconnection, including testing, monitoring.
- ▶ Propose guideline for cooperating, performing, dispatching, clearing fault, maintaining and repairing power grid.
- ▶ Propose regulations of metering system, involving metering points, technical standards, etc.
- ▶ Propose procedure for resolving disputes (if any)
- ▶ Exchange of information.

# Session 6. Future Plan

## Supporting and working with APGCC

- ✓ **AERN will work closely to APGCC to carry out the studies on:**
  - a. Development by Utilizing the Available Energy Indigenous Resources in the Region.
  - b. Study on Taxation and Tariff for Cross-Border Transaction, and Regulation on Public Private Participation in APG Projects.
- ✓ **The corresponding AERN's actions to promote the full functioning and operationalization of APG are as follows:**
  - a. Conduct further study to support the work of HAPUA in order to address obstacles to cross-border trade and interconnection issues;
  - b. Endorse practical interconnection-capable grid codes;
  - c. Explore more appropriate approaches for tariff setting;
  - d. Encourage private investment through regulatory policy and framework.
- ✓ **HAPUA and APGCC support AERN and closely contact to share information for mutual benefits**



# Session 6. Future Plan

## AERN's Upcoming Plan

1. Date and Venue of the next AERN Meeting:
  - ❑ The 6<sup>th</sup> AERN Meeting will be hold on the end of Nov 2015 in Ha Noi, Viet Nam. The exact date will be informed to all soon.
2. The expected content:
  - ❑ Summary of AERN activities in 2015; report on the activities of the working group;
  - ❑ Transition of AERN Chair to Brunei;
  - ❑ Discussion of AERN action plan in 2016, complying with AERN Roadmap developed in 5 year period 2016 to 2020 that agreed at the previous Meeting;
  - ❑ AWG2 meeting to discuss:
    - \* Update, sharing information about the activities at the SOME, AMEN and HAPUA;
    - \* Discuss on Draft AWG2 TOR;
    - \* Discuss the orientation and action plan in 2016;

**Thank you for your  
attention!**

**Your questions are welcome**

