Conference on Regional Cooperation and Integration
Experiences in Asia and the Pacific

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Papers and Presentations

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Harnessing Energy Development Opportunities in the GMS Program
By: Mr. Khin Maung Win

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-Experiences in Asia and the Pacific
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ENERGY Cooperation: Managing the GMS Power Market Evolution

- As of 1992 at the start of the GMS program, barely any connectivity in the region was present
- After 19 years from 1992, Program has grown and translated to economic and other benefits to GMS countries
- By 2012, the vision for the Region is to be more integrated, prosperous, and equitable
- A new GMS Strategy (2012-2022) to guide GMS energy cooperation in light of urgent issues of climate change and energy sufficiency and efficiency
Providing the Policy and Institutional Framework

Policy Statement on Regional Power Trade (adopted 2000)
Inter-Governmental Agreement on Regional Power Trade (IGA) (signed 2002)

Work earlier undertaken through:
- Electric Power Forum (EPF)
- Experts Group on Power Interconnection and Trade (EGP)

Currently through:
- Regional Power Trade Coordination Committee (RPTCC) and its Working Groups

In the Future through:
- Regional Power Coordination Center (RPCC) to be set up
### Implementation Plan (four stages):

<table>
<thead>
<tr>
<th>PTOA</th>
<th>Operation Security</th>
<th>Regulator</th>
<th>Planning</th>
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<td>Share of limited benefits</td>
<td>Inter TSOs coordination</td>
<td>Consensus</td>
<td>Developing of regional planning</td>
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<tr>
<td>Share of benefits</td>
<td>Regional standards coordination by RTC</td>
<td>Extended consensus</td>
<td>Implementation of planning recommendations</td>
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<td>Limited competition</td>
<td>Regional coordinated operation</td>
<td>Limited independent regulator</td>
<td>Regional Network</td>
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<tr>
<td>Full competition</td>
<td>Integrated operation</td>
<td>Independent regulator</td>
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**Stage #1:** only country to country trading is feasible

**Stage #2:** development of transmission facilities allow that (almost) every GMS country to trade with any other. Most of transactions based on PPAs. Limited cross border transmission capacity constrains opportunity trading.

**Stage #3:** enlarged cross border capacity allows to increase transactions.

**Stage #4:** countries moves to competitive schemes. A energy regional market with multiple sellers-buyers is developed.

### Developing the Grid Interconnection Infrastructure

**Focus on:**
- Essential physical power interconnections until 2020
- Harmonization of transmission planning, design and operational practices

**Regional Indicative Master Plan on Power Interconnection** endorsed by EGP in May 2002

**Master Plan Update (2010-2025)** presented to RPTCC in Oct 2010
  - Identification of potential regional projects
  - Identified 3 “poles” of subregional markets
GMS Energy Challenges: Impacts Social and Environmental Sustainability

- Despite impressive economic growth, poverty is high, many are still energy poor
  - GDP grew 7% yearly (1992-2005); power consumed grew 9% yearly (2001-2005)
  - 74 million (20% of population) still without power access; per capita power use just 2/3 of average for LDCs
- Energy vulnerability rising - high dependence on oil imports
  - Lower emissions by integrating energy sector
- High economic growth puts stress on resources
- Climate Change: energy efficiency, renewable energy and low carbon sources
ADB’s Role under Expanded GMS Energy Cooperation

- Catalyst for **dialogue and as honest broker**
- Supporter of **energy policy reform**
- Promoter of **capacity building**
- Serve as **information clearinghouse**

**Future Emphasis (under GMS Energy Road Map):**

- Developing the regional power market
- Developing abundant energy resources with desired environmental properties (e.g., renewable energy)
- Rationalizing the use of energy in the GMS (e.g., energy efficiency)