

RENEWABLE ENERGY MARKETS ASIA 2023 PANEL DISCUSSION

ASEAN RENEWABLE ENERGY MARKET INTEGRATION & BOUNDARY CONSIDERATIONS



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Friday, 28 April 3:30-4:20 PM



**Renewable Energy
Markets™ Asia 2023**

RE100

CLIMATE GROUP



Markets for renewable electricity: principles, boundaries, and ASEAN outlook

REM Asia 2023

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Regional Power Grid Connectivity: The ASEAN Power Grid (APG)



**One Community
for Sustainable
Energy**

Regional blueprint for the energy cooperation in the ASEAN








ASEAN Plan of Action for Energy Cooperation (APAEC) 2016-2025 Phase 2: 2021-2025

- Theme: “Enhancing Energy Connectivity and Market Integration in ASEAN to Achieve Energy Security, Accessibility, Affordability and Sustainability for All”.
- Sub-theme: “Accelerating Energy Transition and Strengthening Energy Resilience through Greater Innovation and Cooperation.”



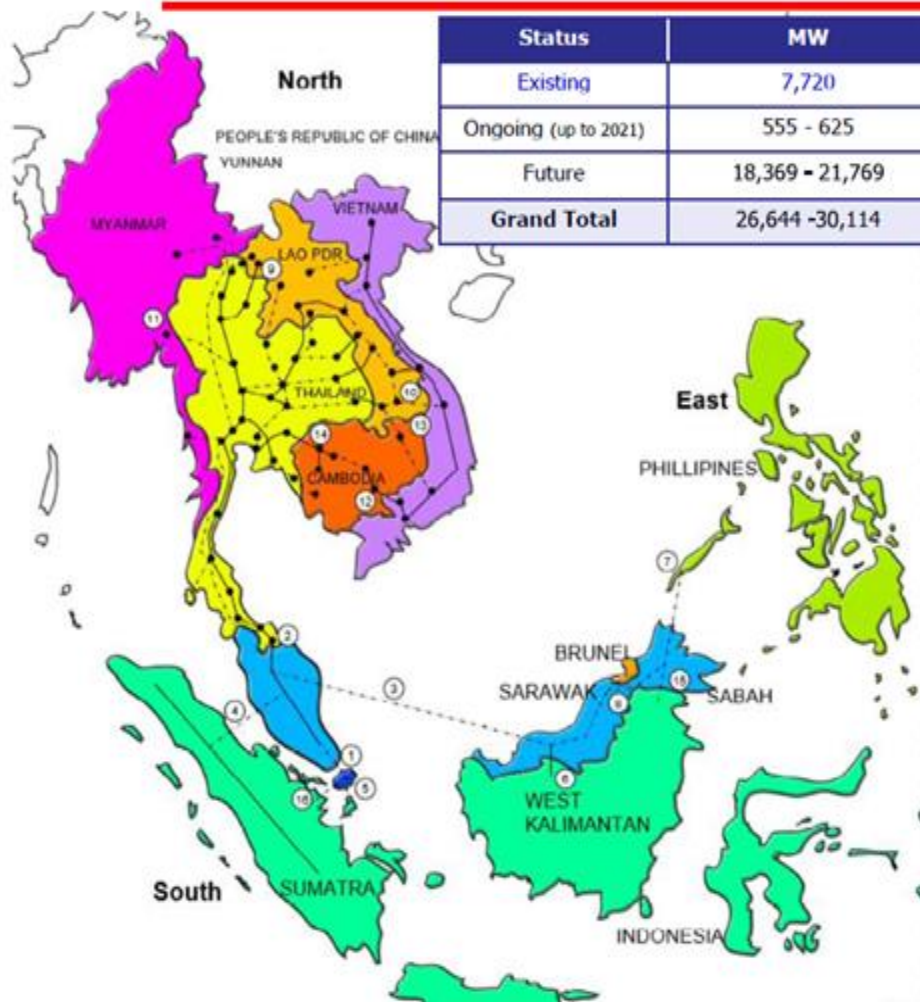
ASEAN PLAN OF ACTION FOR ENERGY COOPERATION (APAEC) 2016-2025 PHASE II: 2021-2025



 ASEAN Power Grid	<p>To expand regional multilateral electricity trading, strengthen grid resilience and modernisation, and promote clean and renewable energy integration.</p>	 Energy Efficiency and Conservation	<p>To reduce energy intensity by 32% in 2025 based on 2005 levels and encourage further energy efficiency and conservation efforts, especially in transport and industry sectors.</p>
 Trans-ASEAN Gas Pipeline	<p>To pursue the development of a common gas market for ASEAN by enhancing gas and LNG connectivity and accessibility.</p>	 Renewable Energy	<p>To achieve aspirational target for increasing the component of renewable energy to 23% by 2025 in the ASEAN energy mix, including through increasing the share of RE in installed power capacity to 35% by 2025.</p>
 Coal and Clean Coal Technology	<p>To optimise the role of clean coal technology in facilitating the transition towards sustainable and lower emission development.</p>	 Regional Energy Policy and Planning	<p>To advance energy policy and planning to accelerate the region’s energy transition and resilience.</p>
		 Civilian Nuclear Energy	<p>To build human resource capabilities on nuclear science and technology for power generation.</p>

Infrastructure projects that shaping regional electricity integration

ASEAN Power Grid (APG)



- 1) **P. Malaysia – Singapore**
 - Plentong – Woodlands Existing 2020
 - P. Malaysia – Singapore (2nd link Plentong – Woodlands)
- 2) **Thailand – P. Malaysia**
 - Sadao - Chuping Existing
 - Khlong Ngae – Gurun Existing
 - Su Ngai Kolok – Rantau Panjang TBC
 - Khlong Ngae – Gurun (2nd Phase, 300MW) TBC
- 3) **Sarawak – P. Malaysia**
- 4) P. Malaysia – Sumatra
- 5) **Batam – Singapore** TBC
- 6) **Sarawak – West Kalimantan** Existing
- 7) **Philippines – Sabah** TBC
- 8) **Sarawak – Sabah - Brunei** 2022
- Sarawak – Brunei 2021
 - Sarawak – Sabah 2022
- 9) **Thailand – Lao PDR**
 - Nakhon Phanom - Thakhek - Theun Hinboun Existing
 - Ubon Ratchathani 2 - Houay Ho Existing
 - Roi Et 2 – Suvannakhet - Nam Theun 2 Existing
 - Udon Thani 3 - Na Bong - Nam Ngum 2 Existing
 - Nakhon Phanom 2 – Thakhek – Then Hinboun (Exp.) Existing
 - Mae Moh 3 – Nan2 – Hong Sa (3Units) Existing
 - Udon Thani 3 – Nabong (converted to 500KV) Existing
 - Ubon Ratchathani 3 – Pakse – Xe Plan Xe Namnoi Existing
 - Khon Kaen 4 – Loi 2 – Xayaburi Existing
 - Thailand – Lao PDR (New) TBC
- 10) **Lao PDR – Vietnam** 2016 - 2020
 - Xekaman 3 – Thanh My Existing
 - Xekaman 1 – Pleiku 2 Existing
 - Nam Mo - Ban Ve TBC
 - Luang Prabang - Nho Quan TBC
- 11) **Thailand – Myanmar** TBC
- 12) **Vietnam – Cambodia (New)**
 - Chau Doc – Takeo – Phnom Penh Existing
 - Tay Ninh – Stung Treng TBC
- 13) **Lao PDR – Cambodia**
 - Ban Hat - Kampong Sralao Existing
 - Ban Hat - Stung Treng Existing
- 14) **Thailand – Cambodia (New)** post 2020
 - Watthana Nakhon – Aranyaprathet – Banteay Meanchey Existing
 - Thailand – Cambodia post 2020
- 15) **East Sabah – North Kalimantan** TBC
- 16) **Singapore – Sumatra** TBC

LEGEND
 — Existing
 - - - Under Construction
 - - - - Future

TBC stands for to be confirmed
The Existing Project as of April 2020
The Priority Projects, which refer to the APAEC 2016-2020, are underlined and indicated in Red.

Started with bilateral.

Pathfinder for promoting regional power integration

Lao PDR-Thailand-Malaysia-Singapore Power Interconnection Project (LTMS-PIP)

