

Overview of ***ASEAN Economic Community (AEC)*** and evaluating ***ASEAN Plan of Action For Energy Cooperation (APAEC) Blueprint 2025***

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ASEAN: Association of South East Aisian Nations



ASEAN
10 countries



BRUNEI



MALAYSIA



SINGAPORE



THAILAND



CAMBODIA



INDONESIA



VIETNAM



PHILIPPINES



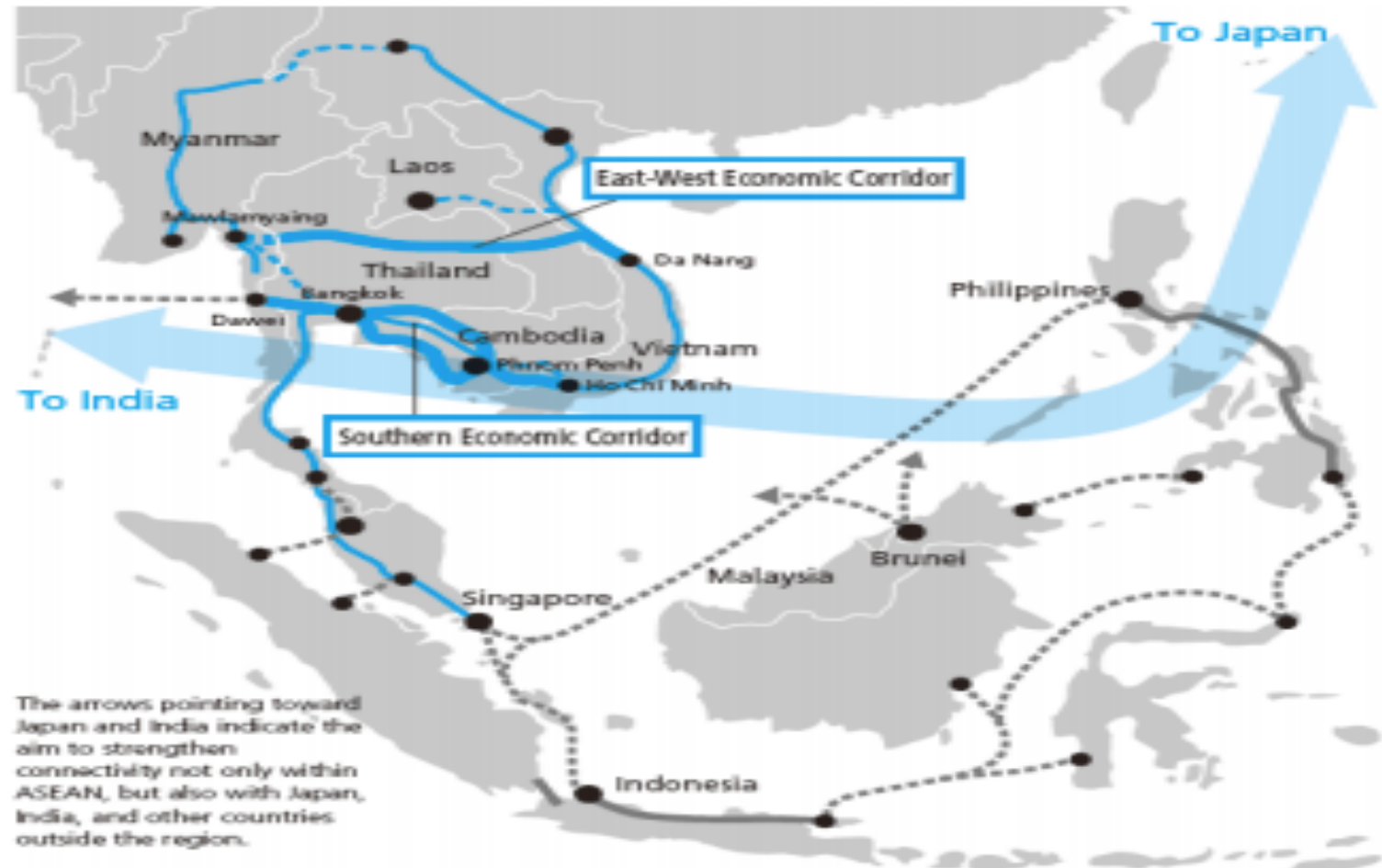
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LAOS

ASEAN – A well-connected region

- Huge market with 628+ million population
- Free trade agreements with major regional economies
- Highly connected physically, institutionally and among the Peoples



Land corridors

Land corridors	Under construction
East-West Economic Corridor	Connects Da Nang and Mawlaikyaing.
Southern Economic Corridor	Connects Ho Chi Minh and Dawei.
Improvement of highways, international bridges, motorways, ports, etc.	

Ocean corridors

Ocean corridors	Improvement required
Connects the major cities of Malaysia, Singapore, Indonesia, Brunei, and the Philippines.	
Improvement of ports, industrial development around ports, energy, ICT improvement, etc.	

ASEAN – An Emerging Economic Powerhouse

- Huge market: 628 million+ people
- GDP: USD 2.43 trillion
- FDI USD 120 billion+



“If ASEAN were a single country, it would already be the sixth largest economy in the world, with a combined GDP of \$2.43 trillion in 2015.”

(Source: ASEAN Stats and IMF-WEO)

“It is projected to rank as the fourth-largest economy by 2050.”

McKinsey & Co – May 2014

Gross Domestic Product 2015

COUNTRIES		GDP (trillion USD)
1.	United States	17.95
2.	China	10.87
3.	Japan	4.12
4.	Germany	3.35
5.	United Kingdom	2.84
6.	France	2.42
7.	India	2.04
8.	Italy	1.81
9.	Brazil	1.77
10.	Russia Federation	1.32
World		73.50

ASEAN 

USD 2.43
trillion

Source: World Development Indicators database, World Bank, 2015 and ASEANstats



ASEAN...

DIVERSE

Home to major religions



Rich culture



Vast natural resources



The ASEAN Journey to Community Building



2015

ASEAN Community

2007

Cebu Declaration



The ASEAN Journey to Community Building

- **Bangkok Declaration - 1967**
- “Accelerate the economic growth, social progress and cultural development in the region through joint endeavors.”
- “Promote regional peace and stability through abiding respect for justice and the rule of law.”



The ASEAN Journey to Community Building

- Bali Concord II - 2003
- “An ASEAN Community shall be established comprising three pillars, namely political and security cooperation, economic cooperation, and socio-cultural cooperation...”

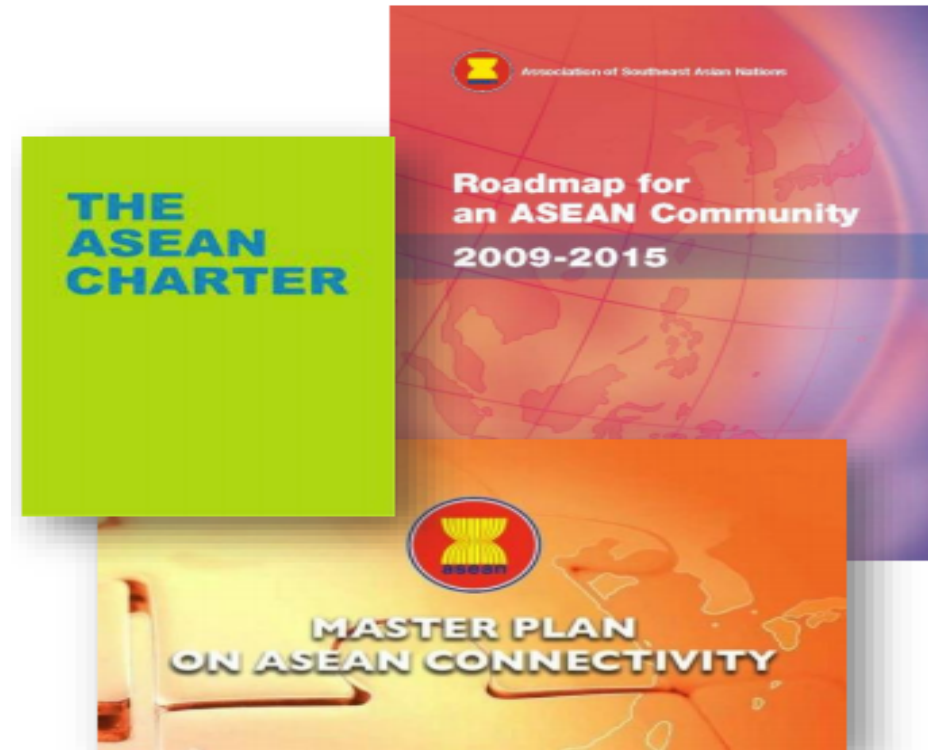


The ASEAN Journey to Community Building

- 12th ASEAN Summit Cebu, Philippines – 2007
- Cebu Declaration
- “Accelerate the establishment of an ASEAN Community by 2015...”



- **Strengthening Framework of ASEAN Integration**
- 2008 - ASEAN Charter
- 2009 - Roadmap for an ASEAN Community 2009–2015
- 2010 - Master Plan on ASEAN Connectivity



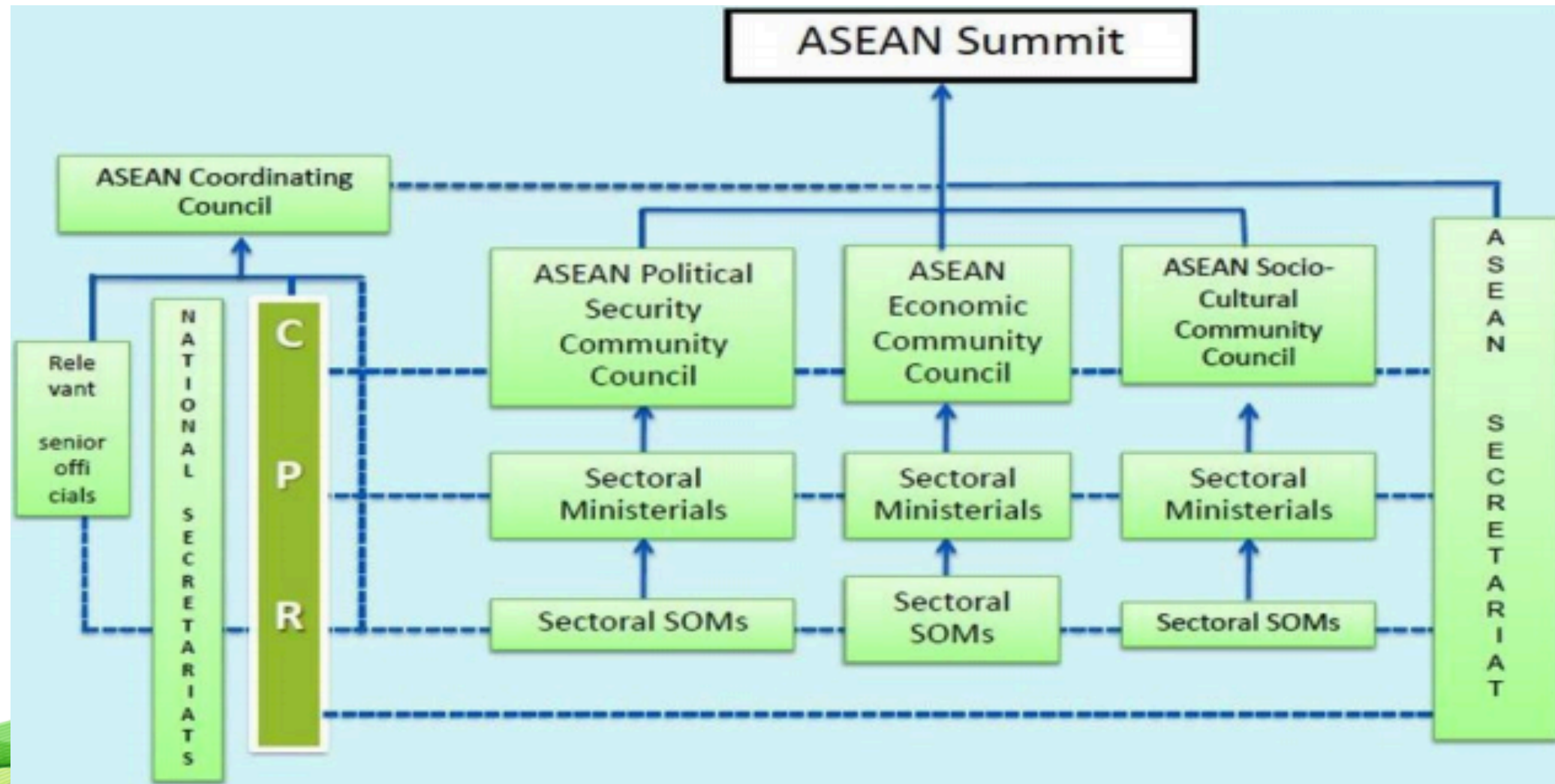
- Launch of ASEAN Community – 31 Dec. 2015

ASEAN Community 2025

- Consolidate the ASEAN Community through deeper and more comprehensive process of integration
- Emphasis on ASEAN centrality
- Emphasis on equitable development of the ASEAN Member States
- More connected ASEAN



Coordination Mechanism of the ASEAN Integration



Overview of the ASEAN Community

- **ASEAN Political Security Community (APSC)**

- Ensures that the peoples and Member States of ASEAN live in peace with one another and with the world at large in a just, democratic and harmonious environment.

- **ASEAN Economic Community (AEC)**

- Transforms ASEAN into a stable, prosperous, and highly competitive region with equitable economic development, and reduced poverty and socio-economic disparities.

- **ASEAN Socio-Cultural Community (ASCC)**

- Contributes to realising an ASEAN Community that is people-oriented and socially responsible with a view to achieving enduring solidarity and unity among the peoples and Member States of ASEAN.

- **Narrowing the Development Gap (NDG)**

- Progressing together through cooperation in development.



ASEAN Economic Community

Establish ASEAN as:

A Highly Integrated and Cohesive Economy

A Competitive, Innovative and Dynamic ASEAN

Enhanced Connectivity and Sectoral Cooperation

A Resilient, Inclusive and People-Oriented, and People-Centred ASEAN

A Global ASEAN

AEC & Energy Policy Agenda

- Energy is key to the realisation of the **ASEAN Economic Community (AEC)** that calls for a **well-connected ASEAN** to drive an **integrated, competitive and resilient region**.
- The ASEAN Vision 2020 envisions a clean and green ASEAN with fully established mechanisms for sustainable development to ensure the protection of the environment, the sustainability of its natural resources, and a high quality of life for its people.
- Such a vision was incarnated at the Bali Summit in October 2003 as the AEC by 2020 (Bali Concord II).

- The **energy policy agenda** of the AEC is designed to ensure a **secure and reliable supply of energy** that includes biofuels, as well as expediting the development of the APG (ASEAN Power Grid) and the TAGP (Trans ASEAN Gas Pipeline).
- It allows for the optimisation of regional energy resources, ensure sustainable energy development by **mitigating GHG (greenhouse gas) emissions** and **strengthen renewable energy** development and cooperation.



- In the **AEC Blueprint**, there are statements about specific projects such as APG and TAGP and about general visions, such as
“Secure and reliable supply of energy including bio-fuel”,
“Strengthen renewable energy development, such as bio-fuels”, and
“investment in the requisite infrastructure for renewable energy development”.
- The AEC also recognises the **limited global reserves of fossil energy** and the **unsustainable world prices of fuel oil** and **emphasises the need to strengthen renewable energy development and cooperation**.

- However, the AEC Blueprint does not have a detailed programme for the energy sector and there are no specific roadmaps in the AEC Blueprint, except for the APG and TAGP.
- Instead, the energy cooperation portion is collectively documented in the sequential ASEAN Plan of Action on Energy Cooperation (APAEC).

ASEAN Plan of Action on Energy Cooperation (APAEC).

- The ASEAN Plan of Action for Energy Cooperation (APAEC) is a series of **guiding policy documents** that aims to promote multilateral energy cooperation and integration to attain the goals of the AEC.
- It serves as the platform for deeper cooperation both within ASEAN as well as with Dialogue Partners (DPs) and International Organisations (IOs) towards enhancing, energy security accessibility, affordability, and sustainability within the framework the AEC.

1st - APAEC 1999-2004

- Six (6) Programme Areas were introduced namely the:
 - 1) ASEAN Power Grid (APG);
 - 2) Trans-ASEAN Gas Pipeline (TAGP);
 - 3) Energy Efficiency and Conservation (EE&C);
 - 4) New and Renewable Energy (NRE);
 - 5) Coal and Clean Coal Technologies (CCT); and
 - 6) Regional Energy Outlook, Energy Policy and Environmental Analysis.

2nd - APAEC 2004-2009

- Signing of the Memorandum of Understanding (MOU) for the APG and the introduction of the annual ASEAN Energy Awards (AEA) for energy efficiency and renewable energy.
- The Programme Area on “Regional Energy Outlook, Energy Policy and Environmental Analysis” was replaced by “Regional Energy Policy and Planning (REPP)”.



3rd - APAEC 2010-2015

- (a) Signing of the MOU between the ASEAN Secretary General and the Executive Director of the International Energy Agency (IEA) in 2011 in Brunei Darussalam, which established the annual **ASEAN Ministers on Energy Meeting (AMEM)**-IEA Energy Dialogue;
- (b) Signing of the MOU on the “Instrument to Extend the TAGP” for another term of 10 years until 20 May 2023; and,
- (c) exceeding ASEAN’s aspirational targets of 8% reduction in energy intensity reduction (over 2005 levels) and 15% share of renewable energy in total installed power generation capacity mix by 2015.

4th - APAEC 2016-2025

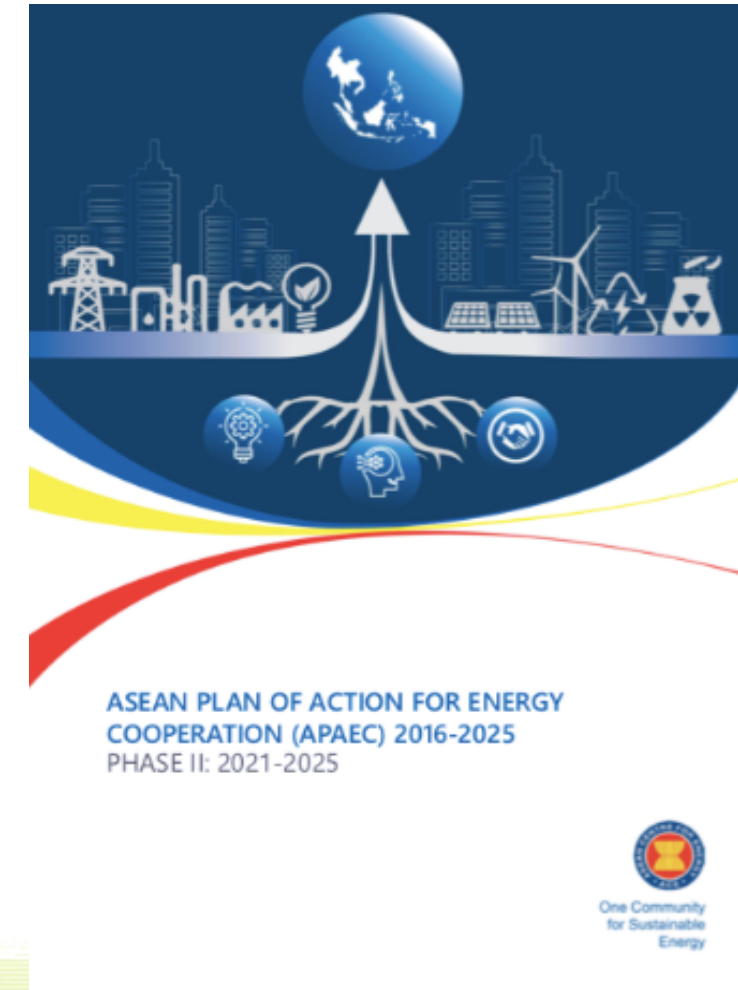
- Current APAEC extended over a longer period of 10 years. The implementation plan is divided in two (2) phases
- Phase I: 2016-2020 and
- Phase II: 2021-2025.

- **APAEC Phase I: 2016-2020** focused on the short- to medium-term strategies
- The 32nd ASEAN Ministers on Energy Meeting (AMEM) held on 23 September 2014 in Vientiane, Lao PDR, endorsed the theme of the ASEAN Plan of Action for Energy Cooperation (APAEC) 2016-2025 as
 - “Enhancing Energy Connectivity and Market Integration in ASEAN to Achieve Energy Security, Accessibility, Affordability and Sustainability for All”.
- **The key strategies of the seven Program Areas of the APAEC 2016-2025 Phase I: 2016-2020**

ASEAN Power Grid	To initiate multilateral electricity trade in at least one sub-region by 2018.
Trans ASEAN Gas Pipeline	To enhance connectivity for energy security and accessibility via pipelines and regasification terminals.
Coal & Clean Coal Technology	To enhance the image of coal through promotion of clean coal technologies (CCT).
Energy Efficiency & Conservation	To reduce energy intensity ³ by 20% in 2020 based on 2005 level.
Renewable Energy	Aspirational target to increase the component of renewable energy ⁴ to 23% by 2025 in ASEAN Energy Mix ⁵ .
Regional Energy Policy & Planning	To better profile the energy sector internationally.
Civilian Nuclear Energy	To build capabilities in policy, technology and regulatory aspects of nuclear energy.

ASEAN Plan of Action and Energy Cooperation (APAEC) Phase II: 2021 – 2025

- The 38th ASEAN Ministers of Energy Meeting (AMEM) held virtually on November 19, 2020, and hosted by Vietnam, endorsed the APAEC Phase II: 2021-2025, retaining the same theme of *“Enhancing Energy Connectivity and Market Integration in ASEAN to Achieve Energy Security, Accessibility, Affordability and Sustainability for All”*.
- A sub-theme was added: “Accelerating Energy Transition and Strengthening Energy Resilience through Greater Innovation and Cooperation.”



- The APAEC Phase II: 2021-2025 builds on the success of APAEC Phase I: 2016- 2020 and sets out ambitious targets and initiatives to enhance energy security and sustainability.
- It also supports the United Nations Sustainable Development Goal 7 (UN SDG7).



The image shows the 17 UN Sustainable Development Goals. Goal 7, 'Affordable and Clean Energy', is highlighted in yellow and has a blue arrow pointing to it from the right. The grid includes icons for each goal, such as a sun for Goal 7, a bowl of food for Goal 2, and a heart for Goal 3.

7 AFFORDABLE AND CLEAN ENERGY



IUM STRATEGIC DIRECTION




HUMANISING EDUCATION THROUGH MAQASID SHARIAH AND SUSTAINABLE DEVELOPMENT

FAITH	LIFE	INTELLECT	LINEAGE	WEALTH
1. NO POVERTY	2. ZERO HUNGER	3. GOOD HEALTH AND WELL-BEING	4. QUALITY EDUCATION	5. GENDER EQUALITY
6. CLEAN WATER AND SANITATION	7. AFFORDABLE AND CLEAN ENERGY	8. DECENT WORK AND ECONOMIC GROWTH	9. INDUSTRY, INNOVATION AND INFRASTRUCTURE	10. REDUCED INEQUALITIES
11. SUSTAINABLE CITIES AND COMMUNITIES	12. RESPONSIBLE CONSUMPTION AND PRODUCTION	13. CLIMATE ACTION	14. LIFE BELOW WATER	15. LIFE ON LAND
16. PEACE, JUSTICE AND STRONG INSTITUTIONS	17. PARTNERSHIPS FOR THE GOALS			




REGIONAL CENTRE OF EXPERTISE ON EDUCATION FOR SUSTAINABLE DEVELOPMENT
ACKNOWLEDGED BY
 UNITED NATIONS UNIVERSITY
 Green-Growth Awards
 UNEP
 cauce
 RUF
 HES





LEADING THE WAY
 KHALĪFAH • AMĀNAH • IQRA' • RAHMATAN LIL-ĀLAMĪN
 [KHAIR]

- Under the APAEC Phase II, ASEAN will enhance its efforts towards building an ASEAN Power Grid by **expanding multilateral electricity trading** to provide affordable and resilient electricity, while accommodating higher shares of renewable energy towards the energy transition and a sustainable energy future.
- ASEAN will aim to achieve its aspirational targets of **23% share of RE in Total Primary Energy Supply** and **35% share of RE in ASEAN installed power capacity by 2025 through deploying large-scale renewable energy systems**, accommodating higher shares of RE in the APG, increasing RE investments, and exploring new and emerging energy technologies such as hydrogen and fuel cells.
- ASEAN will **promote regional initiatives** to enhance **human resource capability** on nuclear science and technology for power generation.

The key strategies of the seven (7) Programme Areas of the APAEC Phase II: 2021-2025 are as follows:

Table 1. APAEC Phase II: 2021-2025 Key Strategies

Programme Areas	Key Strategies
 ASEAN Power Grid	To expand regional multilateral electricity trading, strengthen grid resilience and modernisation, and promote clean and renewable energy integration.
 Trans-ASEAN Gas Pipeline	To pursue the development of a common gas market for ASEAN by enhancing gas and LNG connectivity and accessibility.
 Coal and Clean Coal Technology	To optimise the role of clean coal technology in facilitating the transition towards sustainable and lower emission development.

Programme Areas	Key Strategies
 Energy Efficiency and Conservation	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.
 Renewable Energy	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.
 Regional Energy Policy and Planning	To advance energy policy and planning to accelerate the region's energy transition and resilience.
 Civilian Nuclear Energy	To build human resource capabilities on nuclear science and technology for power generation.



Issues and Challenges

- **Impact of COVID-19 Pandemic**
- The impact of the COVID-19 pandemic on global energy demand and supply could change how ASEAN approaches the energy transition over the next few years.
- According to the IEA's Global Energy Review 2020, the COVID-19 pandemic has caused multiple shocks to global economic and energy markets.
- Countries that have implemented **full lockdowns** experienced an **average 25% decline** in energy demand, while those with **partial** measures are showing an average of **15-18% decline** in energy demand per week.

- Other **containment measures** such as **travel restrictions** also caused a fall in oil demand, oil supply, and demand imbalance as well as a crash in oil prices.
- **Global coal** demand was hardest hit, **falling by almost 8%** in the first quarter of 2020 compared to the first quarter of 2019.
- For ASEAN, there has been some impact on the **oil and gas** demand due to the **Covid-19 movement restrictions policy**.
- In particular, there has been a **decrease** of demand for petroleum products in the **commercial, industrial, and transportation sectors**.
- The **decrease of natural gas** demand has been largely restricted to the **commercial sector**.

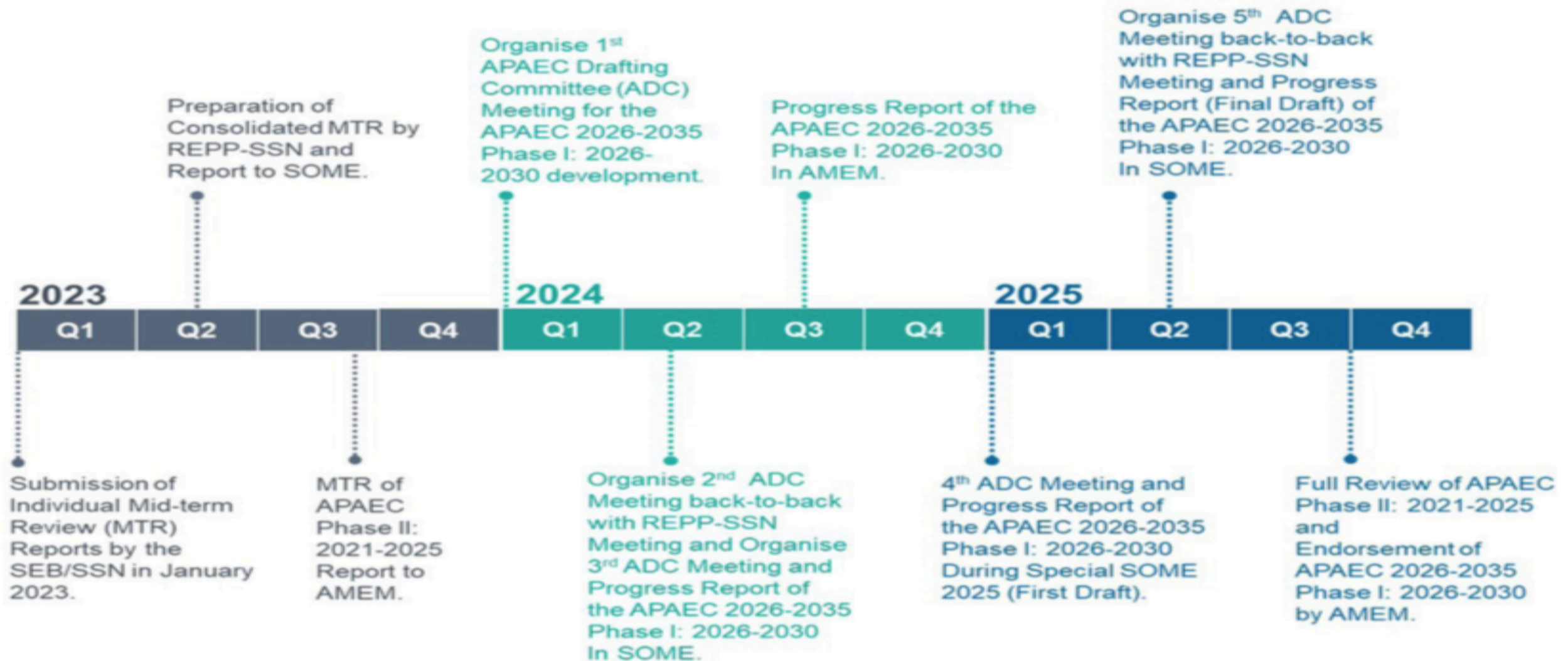
- **IR 4.0**
- The Fourth Industrial Revolution (4IR) which is fast transforming the energy sector in the region.
- Key developments include digital technologies such as internet of things, artificial intelligence, big data, and cloud computing in generation, distribution, consumption, and smart production of cleaner and more efficient energy.

- The **future trend of electrification and digitalisation** will bring about revolutionary changes, including through digital technologies such as **smart grids and distributed power generation with advanced supply and demand management systems**, prosumers, and peer-to-peer trading platforms.
- Building up **regional knowledge capabilities in managing big data system** will ultimately help to improve the ASEAN Energy Database System (AEDS) and the ASEAN Energy Outlook when more energy data and statistics are available at regional level.

Conclusion

- The APAEC 2016-2025 is a **dynamic and living document to guide the implementation of the outcome-based strategies and action plans** to accelerate energy transition and strengthen energy resilience in ASEAN to achieve energy **security, accessibility, affordability, and sustainability** for all under the framework of the AEC.
- As the **continuation** of APAEC Phase I: 2016-2020, the APAEC Phase II: 2021-2025 comprises **comprehensive strategies** to meet the challenges of **ASEAN's energy transition and resilience** in view of the changing landscape of global energy trends.

- So what's next?
- Preparations for APAEC 2026-2035 Phase I: 2026-2030



Thank you for your kind attention

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“Developing a new legal framework on renewable energy and enabling environments for Southeast Asia”

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