

Oil and Gas Security in ASEAN



One Community
for Sustainable
Energy



One Community
for Sustainable
Energy

Outline of Presentation

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ASEAN**

AEC

**ASEAN
ENERGY
SITUATION**

APSA

**WAY
FORWARD**

About ASEAN



ASEAN ECONOMY

A Highly Competitive Economic Region

With an average annual real growth rate of **5.3%**, between 2007 and 2015, collectively ASEAN economy was the **6th largest in the world** and the **3rd largest in Asia** in 2015.



ASEAN INVESTMENT

A Preferred Investment Destination

In 2015, ASEAN attracted **US\$ 121 billion** of FDI with **intra-ASEAN** constituting the **largest share** of inflows.



ASEAN TRADE

A More Integrated Market

Total trade increased by **US\$ 700 billion** between 2007 and 2015, with **intra-ASEAN** trade comprising **the largest share** of ASEAN's total trade.



ASEAN PEOPLE

A Dynamic and Vibrant Community

In 2015, ASEAN was the **3rd** largest by population with **more than half** under the age of 30 and **47.7%** living in urban areas.



About ASEAN



AEC TIMELINE



AEC BLUEPRINT 2025

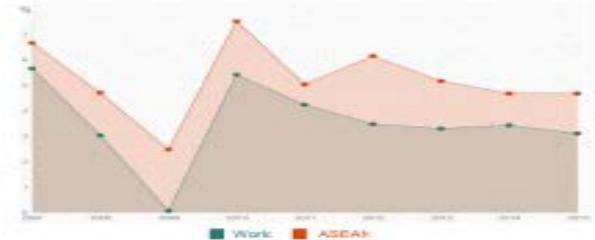


The strategic measures under the 5 characteristics in the AEC Blueprint 2025 will be operationalised through the **sectoral work plans** and their implementation monitored through the **AEC 2025 Monitoring and Evaluation Framework**.



ASEAN ECONOMY

With an average annual real growth rate of **5.3%** between 2007-2015, ASEAN has consistently outperformed global growth.



At US\$ 2.4 trillion, ASEAN economy in 2015 was

the **6th largest in the world** & the **3rd largest in Asia**



Source: ASEAN Secretariat and WEO - IMF



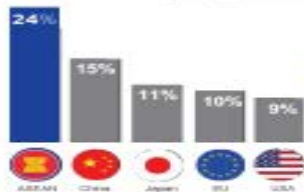
ASEAN TRADE

Total ASEAN Trade



Despite the moderation in global trade growth, total ASEAN trade grew by **US\$ 700 billion** between 2007 and 2015.

Major Trading Partners



Intra-ASEAN trade comprised the **largest share** of ASEAN's total trade by partner in 2015.

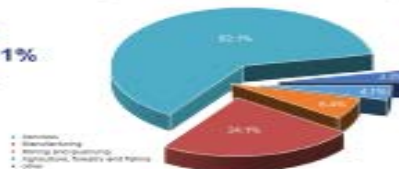
Source: ASEAN Secretariat



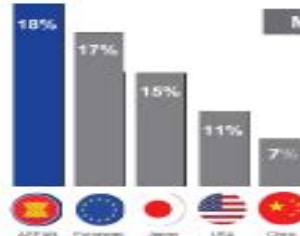
ASEAN INVESTMENT

Total FDI and by Sector

ASEAN attracted **US\$121 billion** of FDI in 2015, **62.1%** of which were in the services sector.



Major Sources of FDI



Intra-ASEAN was the **highest source** of FDI in 2015

Source: ASEAN Secretariat



ASEAN PEOPLE

Collectively, ASEAN population was the **3rd largest in the world** in 2015



More than half of the population were **below 30 years of age**



and **47.7%** lived in urban areas.

Source: ASEAN Secretariat and UN Population Division

AEC Blueprint 2025



**HIGHLY INTEGRATED
& COHESIVE
ECONOMY**

*to facilitate the
seamless movement
of goods, services,
investment, capital,
and skilled labour
within ASEAN*



**COMPETITIVE,
INNOVATIVE &
DYNAMIC ASEAN**

*to focus on elements
that contribute to
increasing the region's
competitiveness and
productivity*



**ENHANCED
CONNECTIVITY &
SECTORAL
COOPERATION**

*to enhance economic
connectivity involving
various sectors,
namely, transport,
telecommunication
and energy,*



**RESILIENT, INCLUSIVE,
PEOPLE-ORIENTED &
PEOPLE-CENTERED
ASEAN**

*"Equitable Economic
Development" by
deepening existing
elements and
incorporating other
key elements*



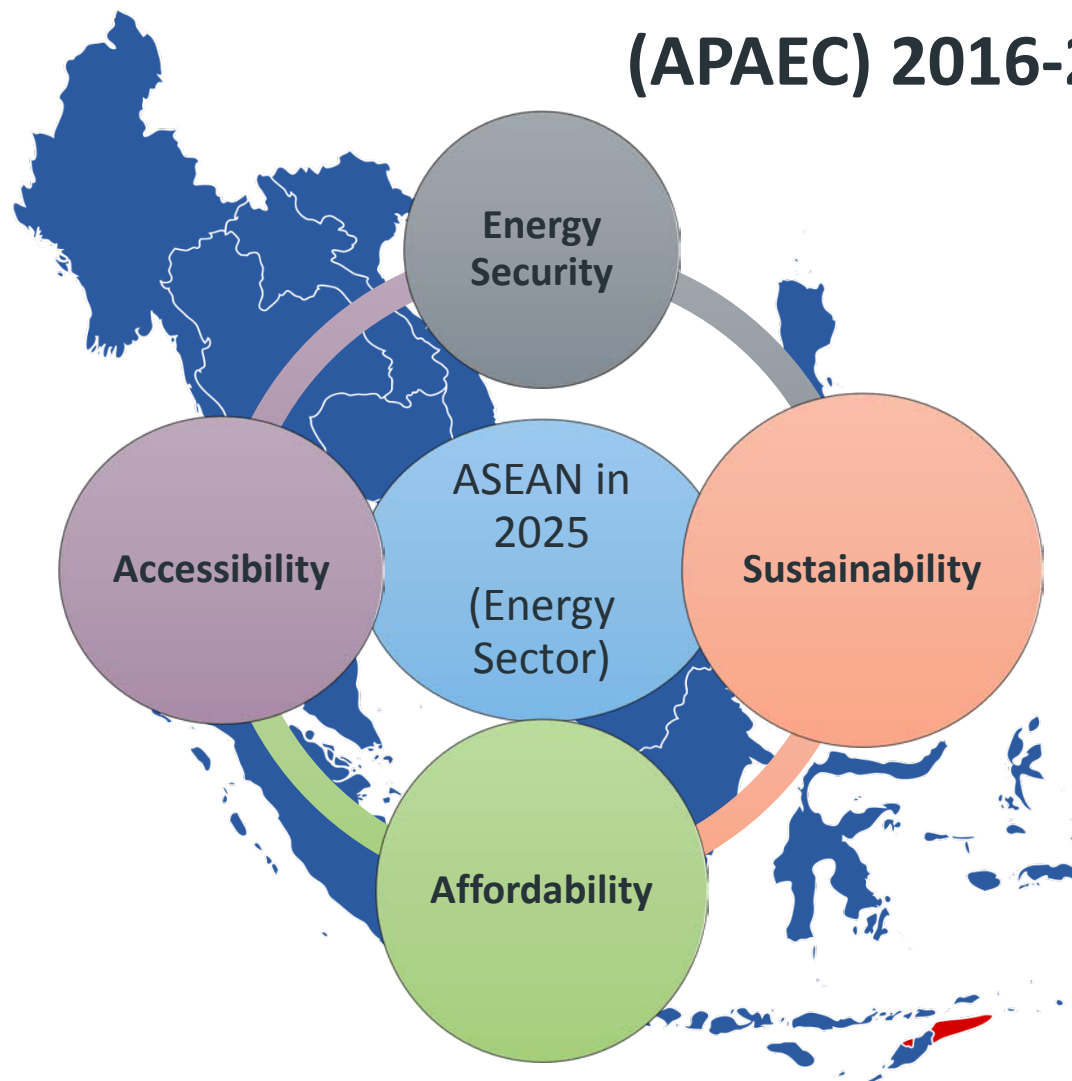
GLOBAL ASEAN

*to make steady
progress towards
integrating the
region into the
global economy*

ASEAN Plan of Action for Energy Cooperation (APAEC) 2016-2025



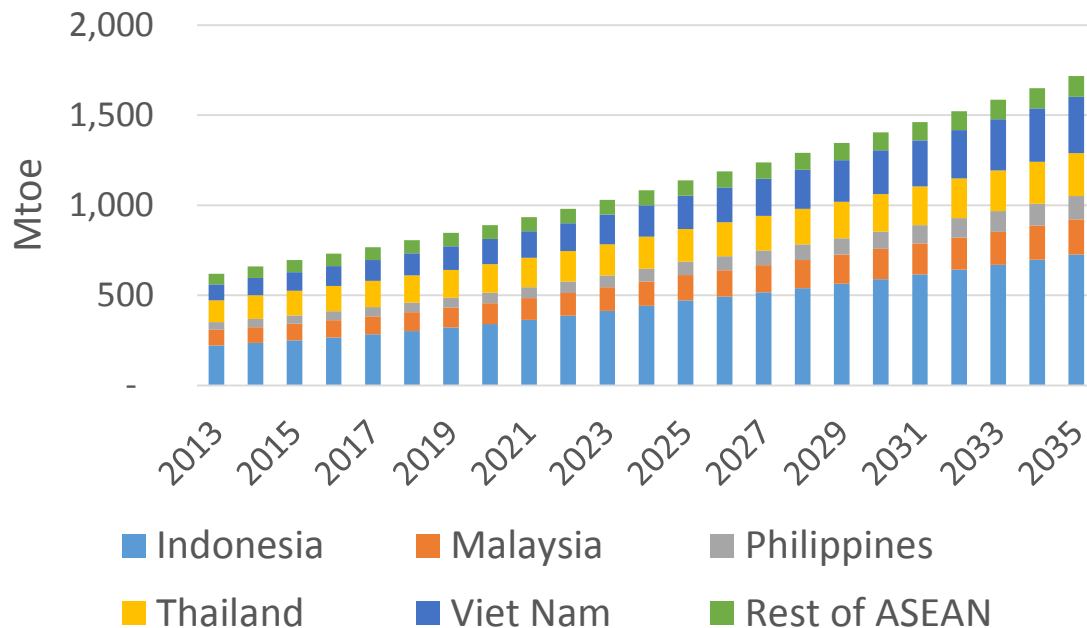
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Energy



- i. To initiate multilateral electricity trade in at least one sub-region by 2018.
- ii. To enhance connectivity for energy security & accessibility via pipelines & regasification terminals.
- iii. To enhance the image of coal through promotion of clean coal technologies (CCT).
- iv. To reduce energy intensity by 20% in 2020 based on 2005 level.
- v. Aspirational target to increase the component of RE to 23% by 2025 in ASEAN Energy Mix.
- vi. To better profile the energy sector internationally.
- vii. To build capabilities in policy, technology & regulatory aspects of nuclear energy.

“Enhancing Energy Connectivity and Market Integration in ASEAN to Achieve Energy Security, Accessibility, Affordability and Sustainability for All”.

ASEAN's growing TPES

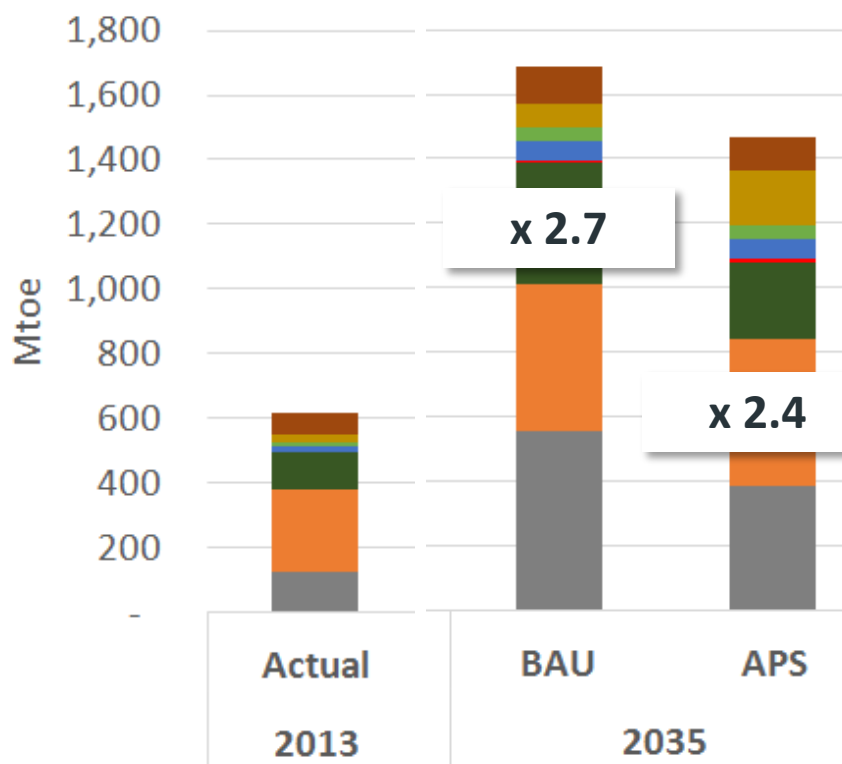


Source: 4th ASEAN Energy Outlook, ACE, 2015

Key Messages:

- **Demand challenge:** increasing domestic use of resources/falling exports (economic impacts). For oil/gas: supply security and resource depletion problems.
- **“Energy efficiency first”:** enhance national regulation in all sectors (including transport, electricity consumption). **Synergies: Less energy used = higher RE shares**
- Enhance **RE diffusion** and identify **opportunities for high local manufacturing shares** and requests on local manufacturing contents.
- **Mutual policy learning/coordination, regional market integration, interconnections** help national EE/RE policies preventing system inefficiencies and reduce energy costs
- **Strongly rising coal shares:** Opportunities and challenges of **clean coal technologies**
- **Continuation of successful energy subsidy reduction strategies:** a window of opportunity in times of low oil/gas prices (including to support regional market integration)

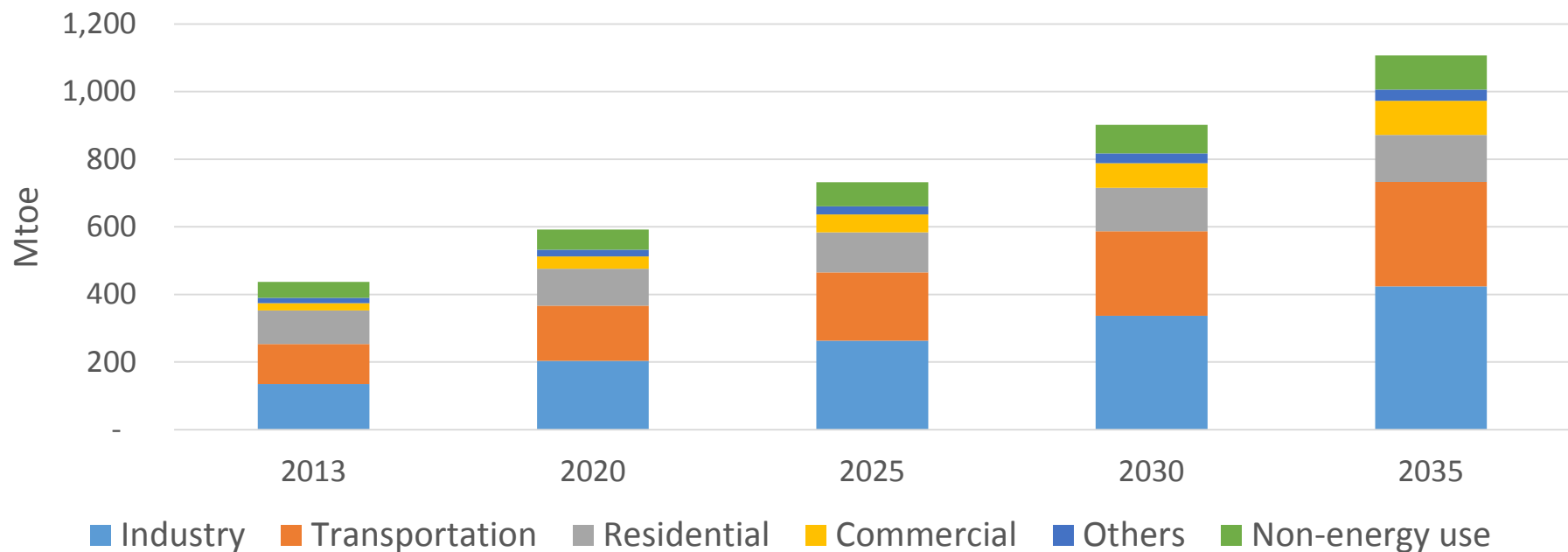
Oil & Gas in TPES



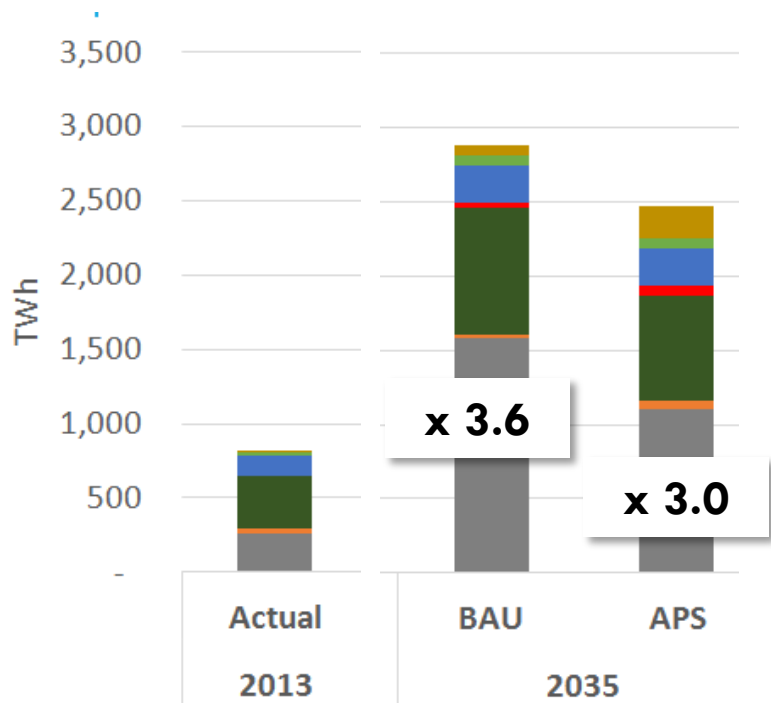
- **GDP growth : 6.1% per year (x 3.7 in period 2013-2035)**
- **BAU: x 2.7 in 2035, APS: x 2.4 (-13%)**
- **Coal to overtake oil by 2025**

■ Coal ■ Oil ■ Natural gas ■ Nuclear ■ Hydro
 ■ Geothermal ■ Others Renewables ■ Biomass

Total Final Energy Consumption



SHARE OF OIL & GAS IN ELECTRICITY GENERATION



- Coal dominant in 2035 → increased domestic use / reduced exports
- Gas/oil/coal reserves intensively deployed
- RE: strong penetration in APS
- RE Potential still mainly untapped

■ Coal ■ Oil ■ Natural gas ■ Nuclear
■ Hydro ■ Geothermal ■ Other Renewables

APSA Study Phase 1 (2015)

1. Review of the ASEAN Petroleum Security Agreement (APSA)

- Extract issues on APSA/CERM for shifting operationalisation.

2. Manual for Operationalisation of APSA

- Facilitated creation of necessary structures for APSA including APSA secretariat

3. Localisation Guideline for operationalization of the APSA

- Serve to ASEAN Member States as a starting basis for further work regarding the localisation of the overall operationalised APSA

Gaps and Shortcomings of APSA

Main topic area:	Recommendation overview:	Implications for APSA:	Key initial steps to be taken:
Operational bodies made to function	Bring bodies into actual existence; begin carrying out main functions; have committees meet regularly; etc.	Changes to APSA not necessary.	Activation of full-time, dedicated APSA Secretariat (Sec.); determine funding.
Communication links	Establish elaborated communications protocol, including system and tools necessary for regular information sharing in non-crisis periods.	Changes to APSA not necessary.	Adoption of guidelines; designate contacts in each MS; MS actively communicate w/ Sec.
Short term emergency measures	Each Member State should put in place short-term emergency measures, including emergency oil stocks, and contingency response plans.	Changes to APSA would not be required.	MS review existing measures and plan for developing any needed new measures.
Coordinated emergency response measures	Each Member State clarify the specific emergency measures and adopt specific plans which would allow participation in a coordinated action; Secretariat assess the appropriateness of these measures.	Changes to APSA would not be required.	MS submit to Sec. their review of existing measures and plans for any needed new measures.
Standardization of methodology	Sec. elaborates clear methodology regarding calculations of baseline measures and operating procedures with ASCOPE, ACE and ASec; each Member State adopts standard.	Changes to APSA would not be required.	Sec. activates and refines guidelines, consulting and interacting with other operational bodies

Gaps and Shortcomings of APSA

Main topic area:	Recommendation overview:	Implications for APSA:	Key initial steps to be taken:
Data and information gathering	The specific data requirements necessary for the established methodology, including definitions of data points and timeframe of regular and emergency data gathering, should be determined.	Changes to APSA not necessarily required, can be based on willingness of MS.	MS systematically provide Sec. existing available data (e.g. JODI); Sec. assess and define additional needs; MS commit to reporting.
Inclusion of natural gas	Oil emergency response policies and procedures should be treated separately from natural gas.	Would require modifying definition of petroleum in Article 2.9 to remove natural gas.	All MS agree to change definition in art. 2.9; Sec. develops more elaborated procedures for gas, in consultation with Management Committee (MC).
Designation of Secretariat	Change designation of Secretariat under APSA, from ASCOPE Secretariat to more appropriate, dedicated and permanent body.	Would require amending Article 5.2.	All MS agree to change definition in art. 5.2; agree on alternative body and means for funding this new Sec.
Flexibility to respond to a crisis	Develop a more flexible framework for activating emergency measures than the prescribed trigger under APSA.	Would require amending or fully re-writing CERM under APSA.	Sec. drafts revised agreement with MC consultation; submit to GB for approval.
Voluntary based assistance	A specific commitment by all Member States to establish short term emergency measures would significantly strengthen APSA.	Substantive change to APSA would be required.	Sec. drafts revised agreement with MC consultation; submit to ³ GB for approval.

ASEAN+3



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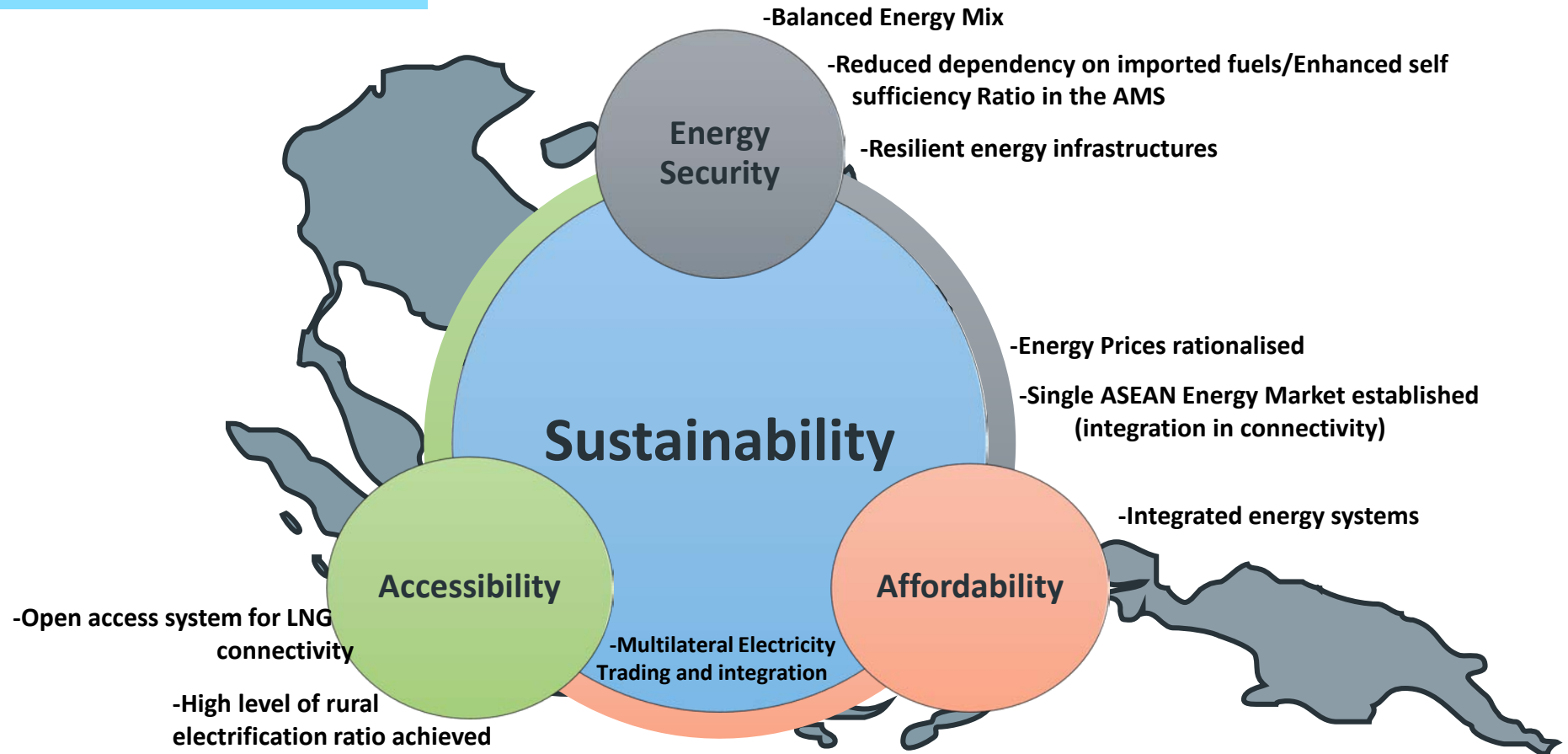
Cooperation in Oil Market & Natural Gas

- Enhancing effort to achieve energy security with economic efficiency and environmental sustainability on the premise of safety,
- Importance of developing high-quality energy infrastructure, bearing in mind the lifecycle costs, environmental impacts and safety aspects of projects,
- To continue sharing & exchanging information on policy updates, best practices, experiences, technologies on oil and natural gas exploration and production, human resource development, and challenges and opportunities, the necessity for continued investment in oil and natural gas development and production for stable and competitively priced supply in future.
- Increasing & changing demand trends of natural gas in the region, and the importance of enhancing regional connectivity through the promotion of transparent & competitive gas markets.
- Promoting the utilisation of natural gas is beneficial for tackling climate change & securing energy security & it stimulates related investment & creates growth opportunity.
- More flexible and transparent gas market in Asia and the enhancement of its tradability;
- Facilitating investment in related infrastructure and equipment such as upstream, regasification and pipelines; and
- Promoting new natural gas demand such as LNG bunkering and gas co-generation

ACHIEVING AEC GOALS

WAY FORWARD

Closing the Gaps to
operationalize APSA





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Thank You