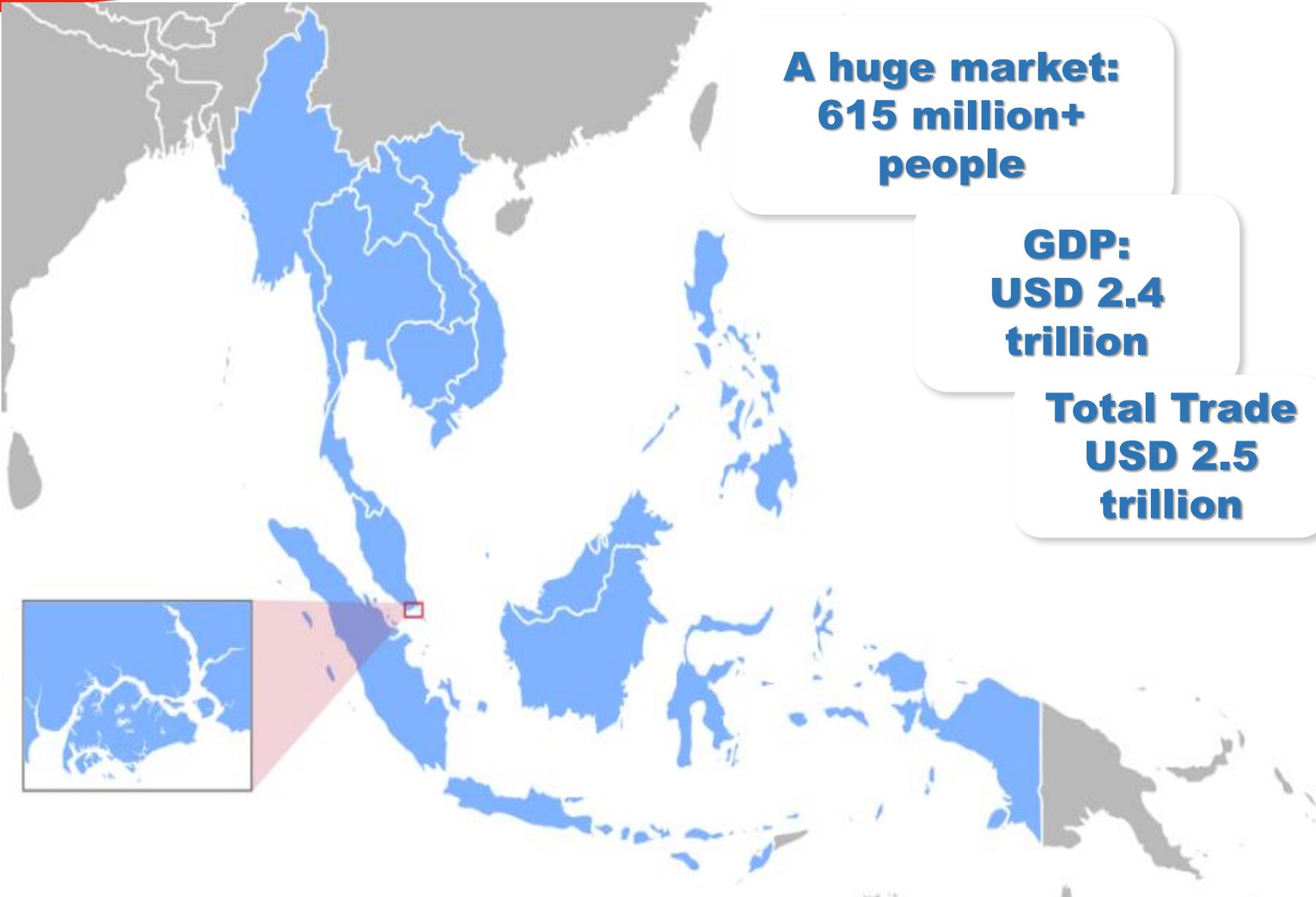


ASEAN ENERGY



ASEAN: A Community of Opportunities



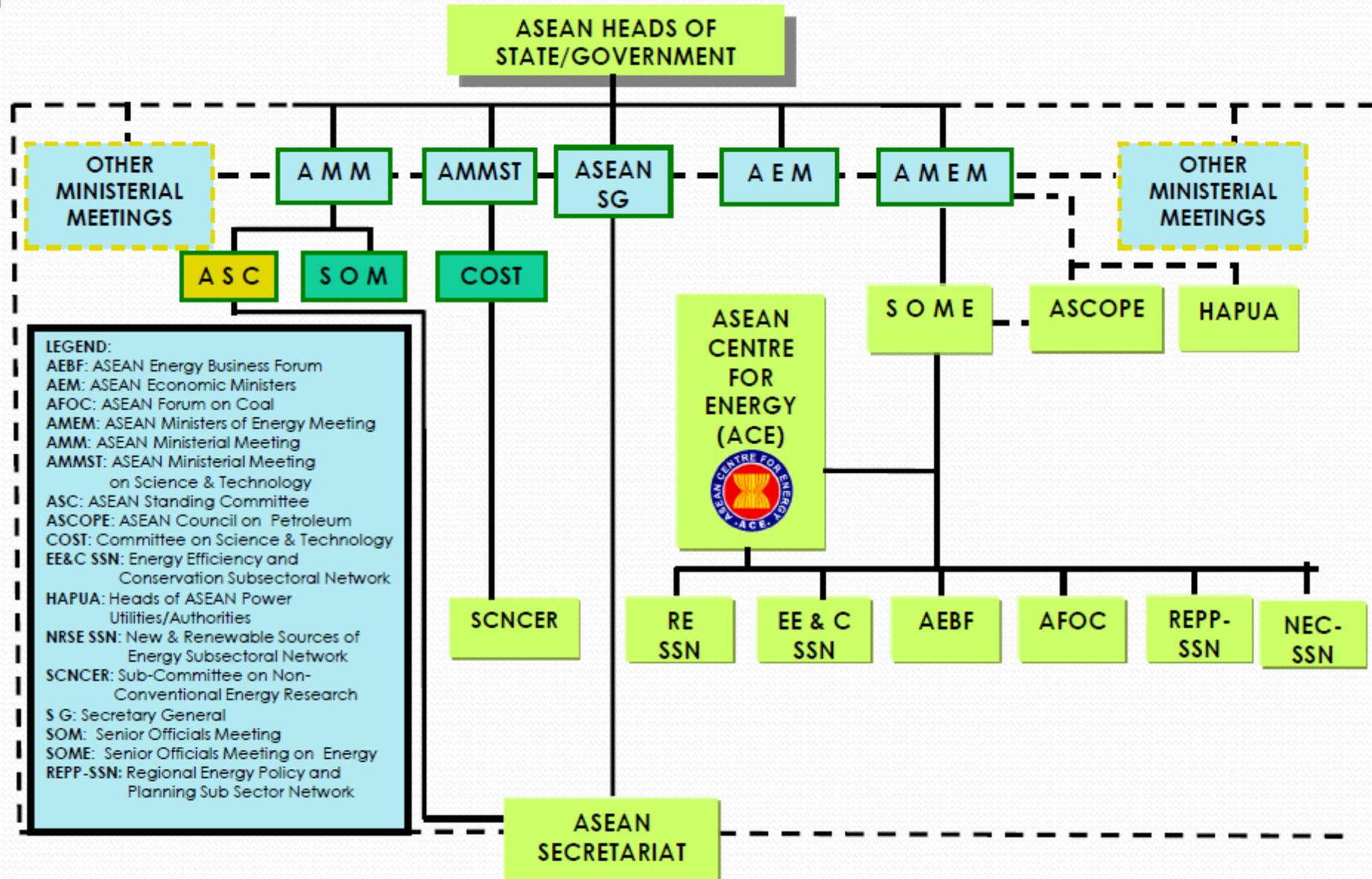
**A huge market:
615 million+
people**

**GDP:
USD 2.4
trillion**

**Total Trade
USD 2.5
trillion**

The AEC Blueprint, signed in 2007 in Singapore ... to establish ASEAN as a single market and production base with the goal of making ASEAN more dynamic and competitive.”

ACE in ASEAN's Structure



Energy Background

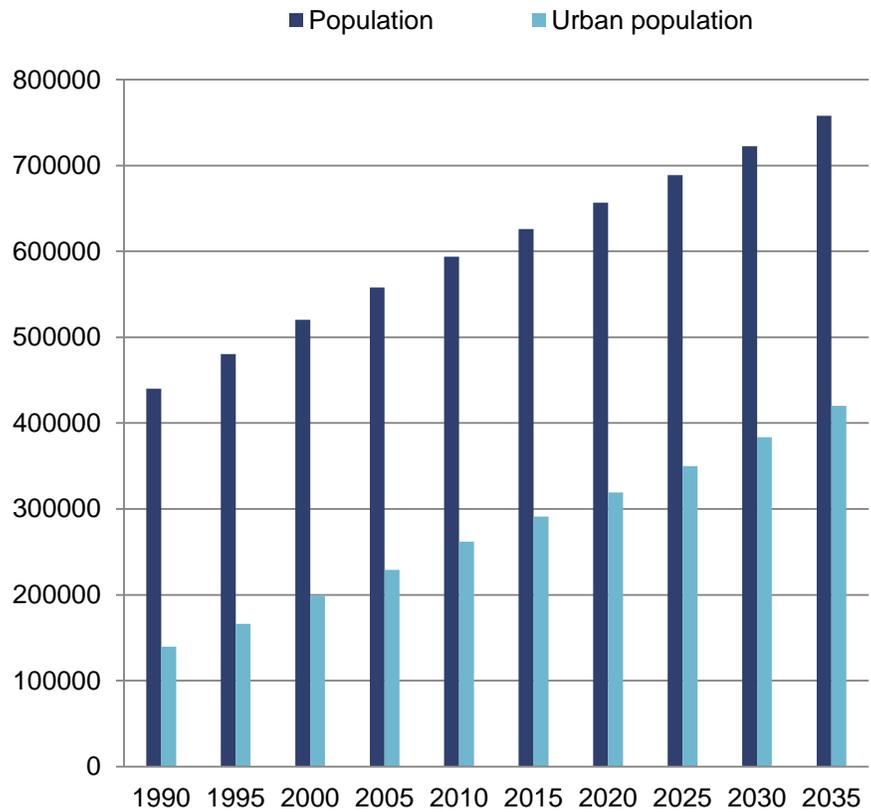


- Energy is crucial to the transformation of ASEAN into a stable, secure, prosperous, competitive and resilient ASEAN Economic Community in 2015.
- ASEAN energy demand growing by 2.5 times since 1990
- Endorsed by the 32nd AMEM held on 23 September 2014 in Vientiane, Lao PDR, the theme for the APAEC 2016-2025: “Enhancing Energy Connectivity and Market Integration in ASEAN to Achieve Energy Security, Accessibility, Affordability and Sustainability for All”
- The ASEAN Plan of Action for Energy Cooperation, or APAEC, is a series of guiding policy documents to implement energy cooperation in advancing regional integration towards a global ASEAN.
- It serves towards enhancing energy security, accessibility, affordability and sustainability in the region.

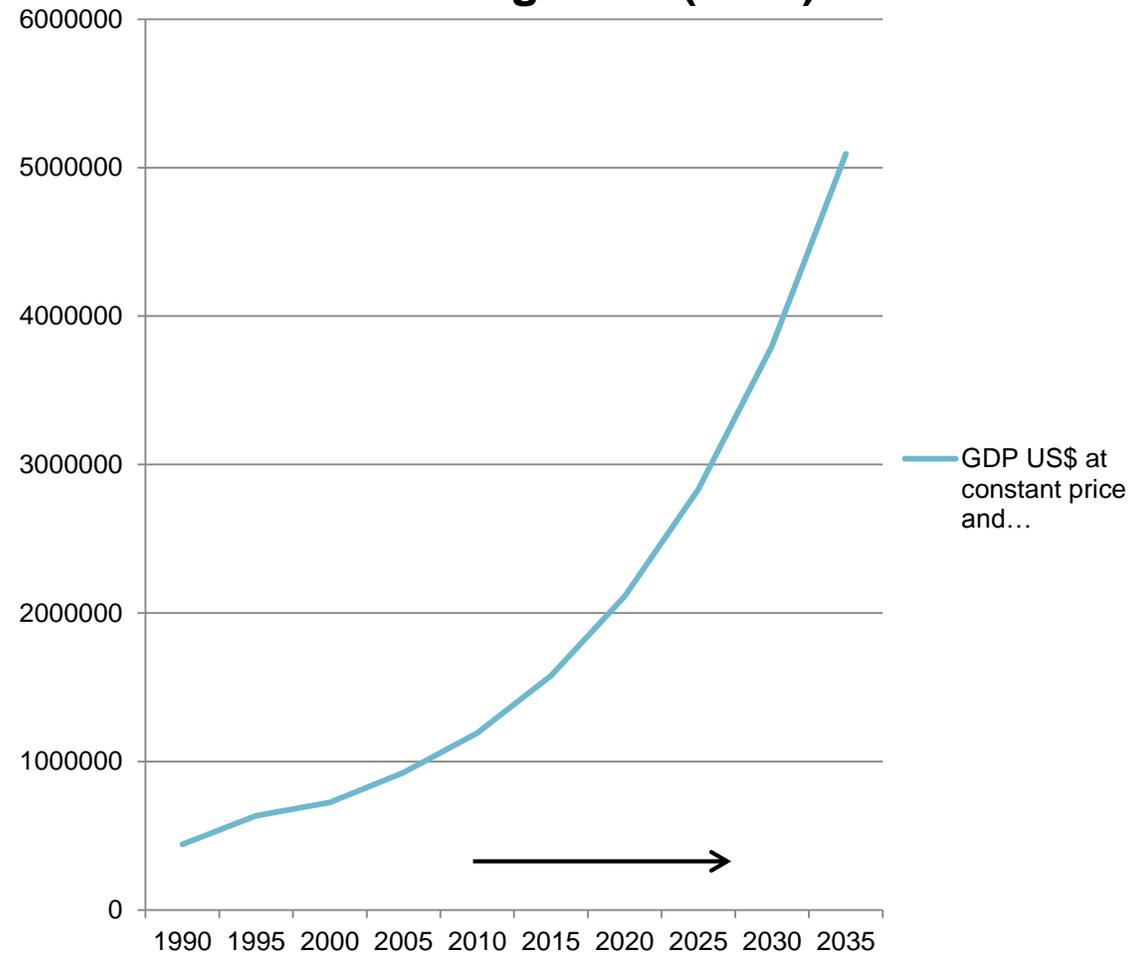
Population and GDP



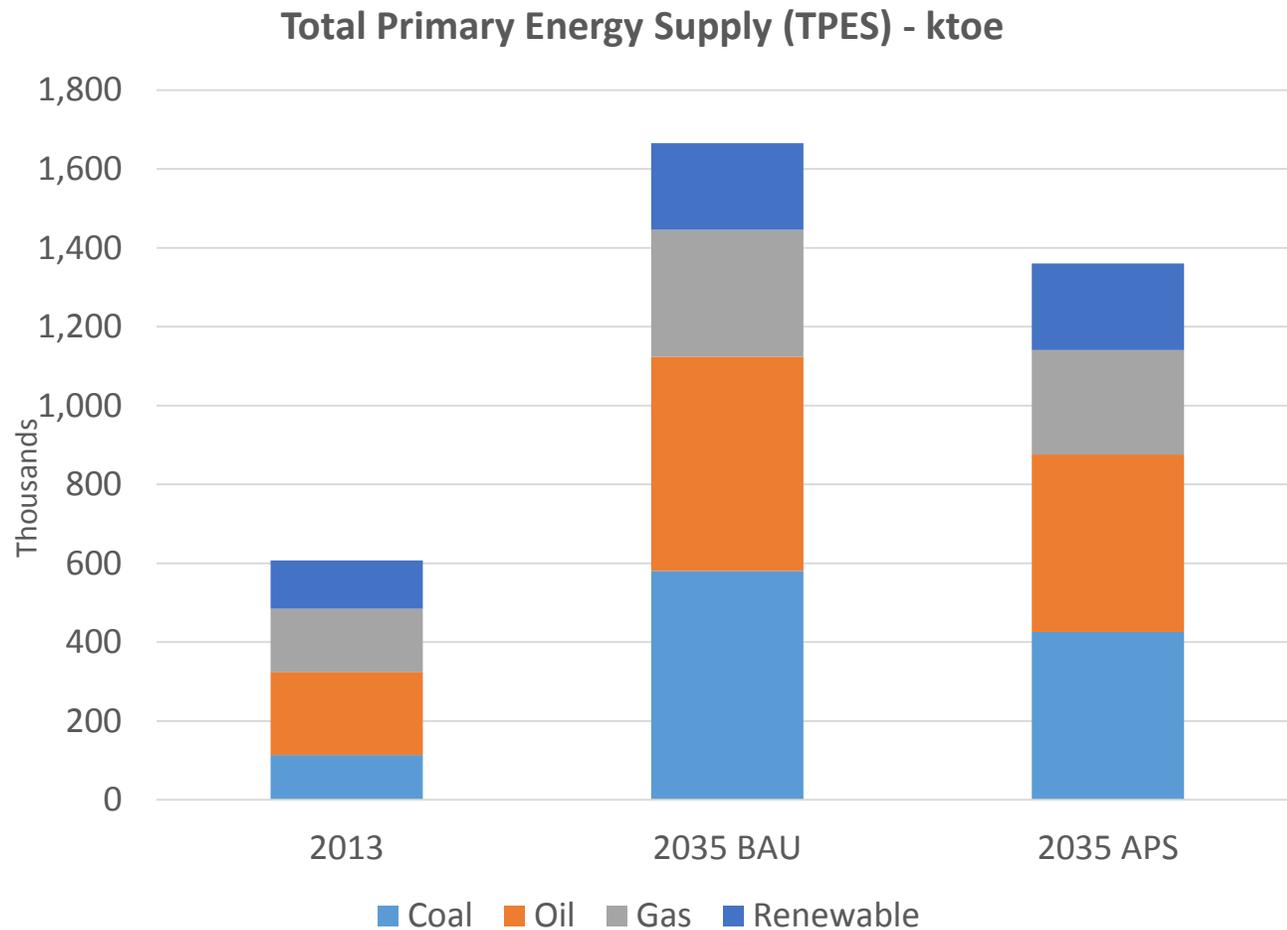
ASEAN Population and Urbanization in 1000 people



ASEAN GDP US\$ at constant price and exchange rate (2005)



Total Primary Energy Supply

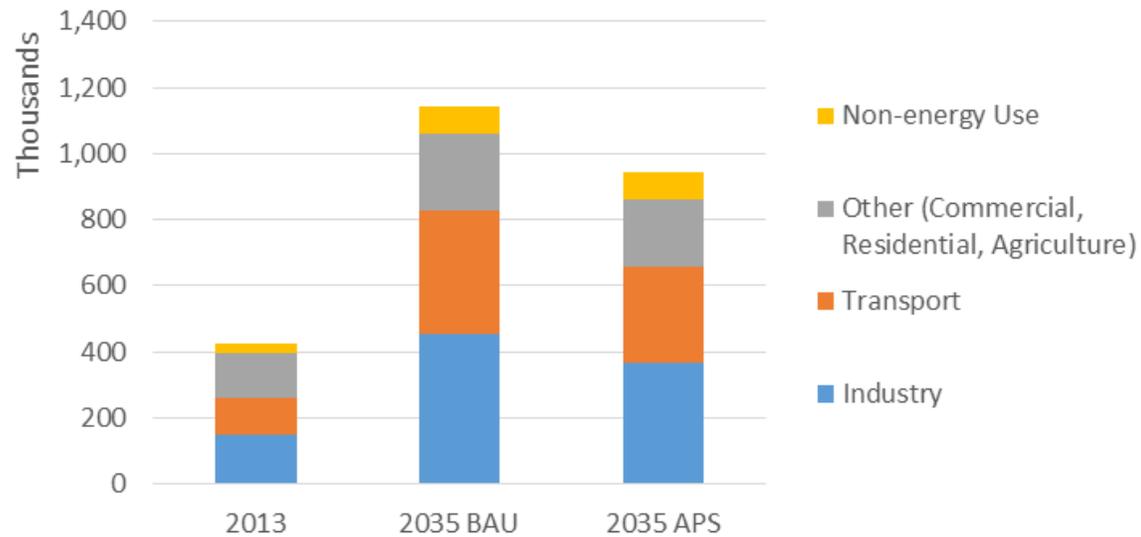


✓ In the BAU scenario, the primary energy supply in ASEAN region is projected to grow at 4.7% per year, reaching about 1600 MTOE in 2035.

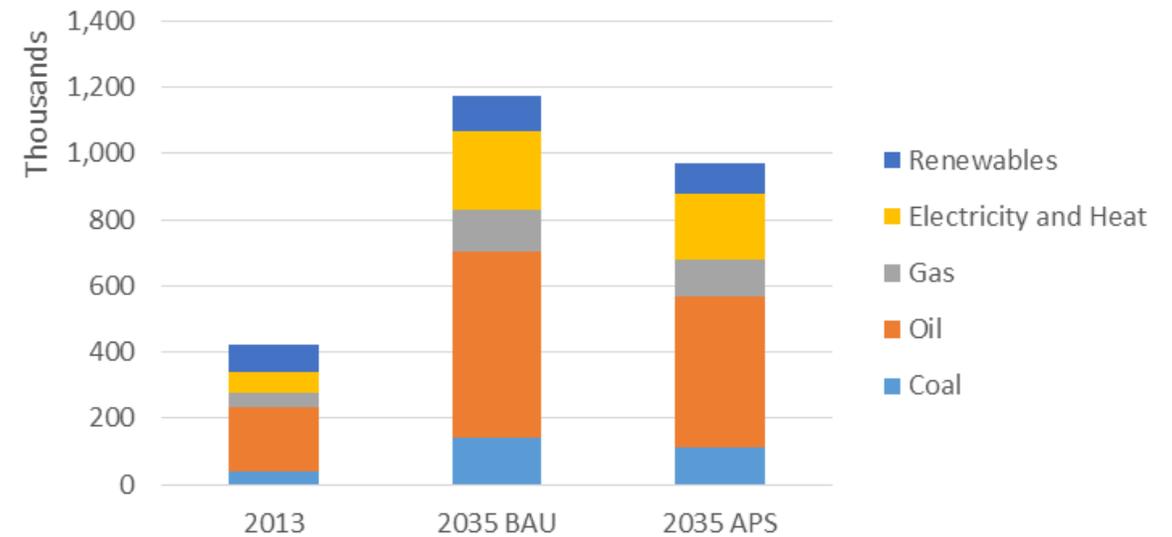
Total Final Energy Consumption



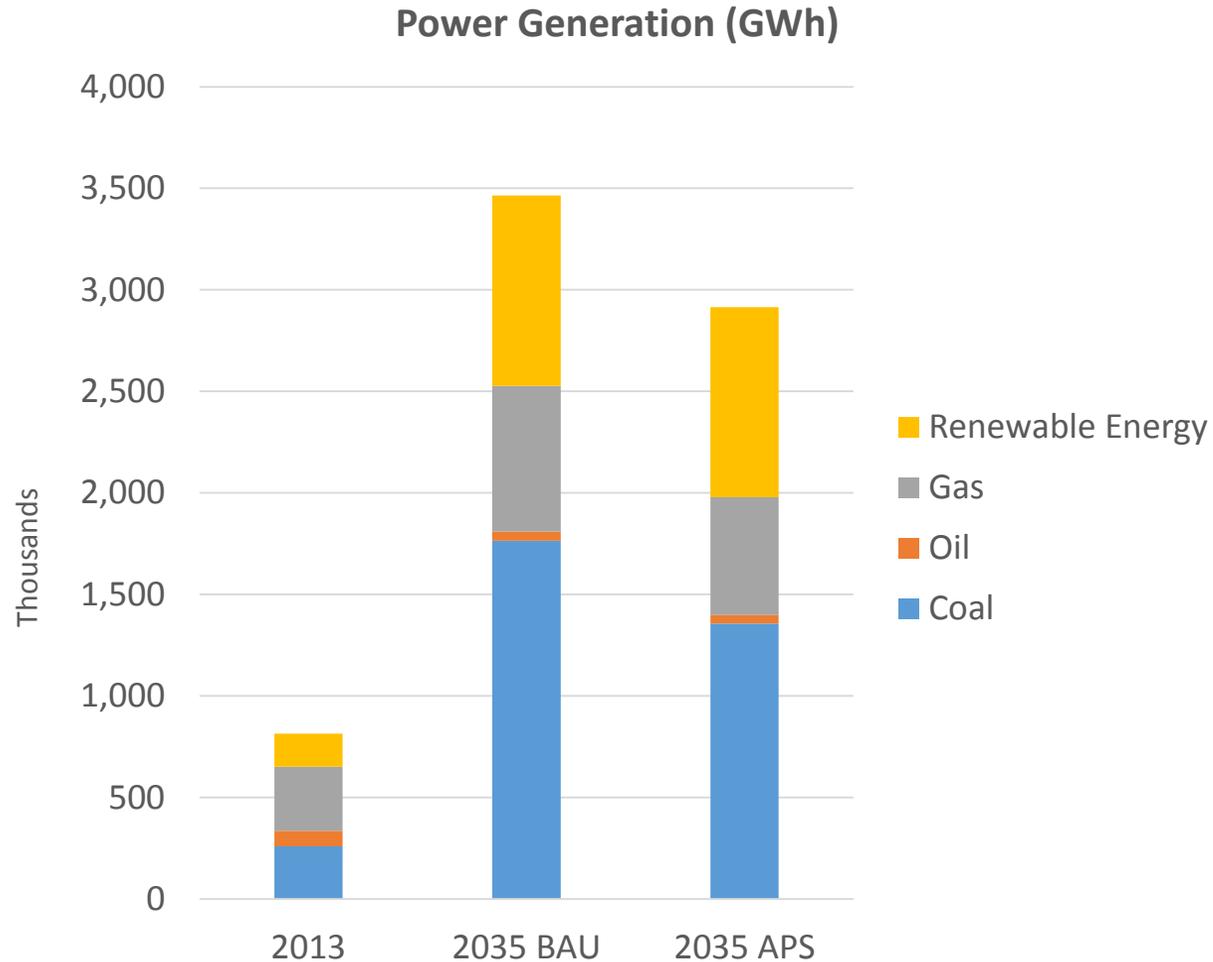
Total Final Energy Consumption (TFEC);
in ktoe, per sector



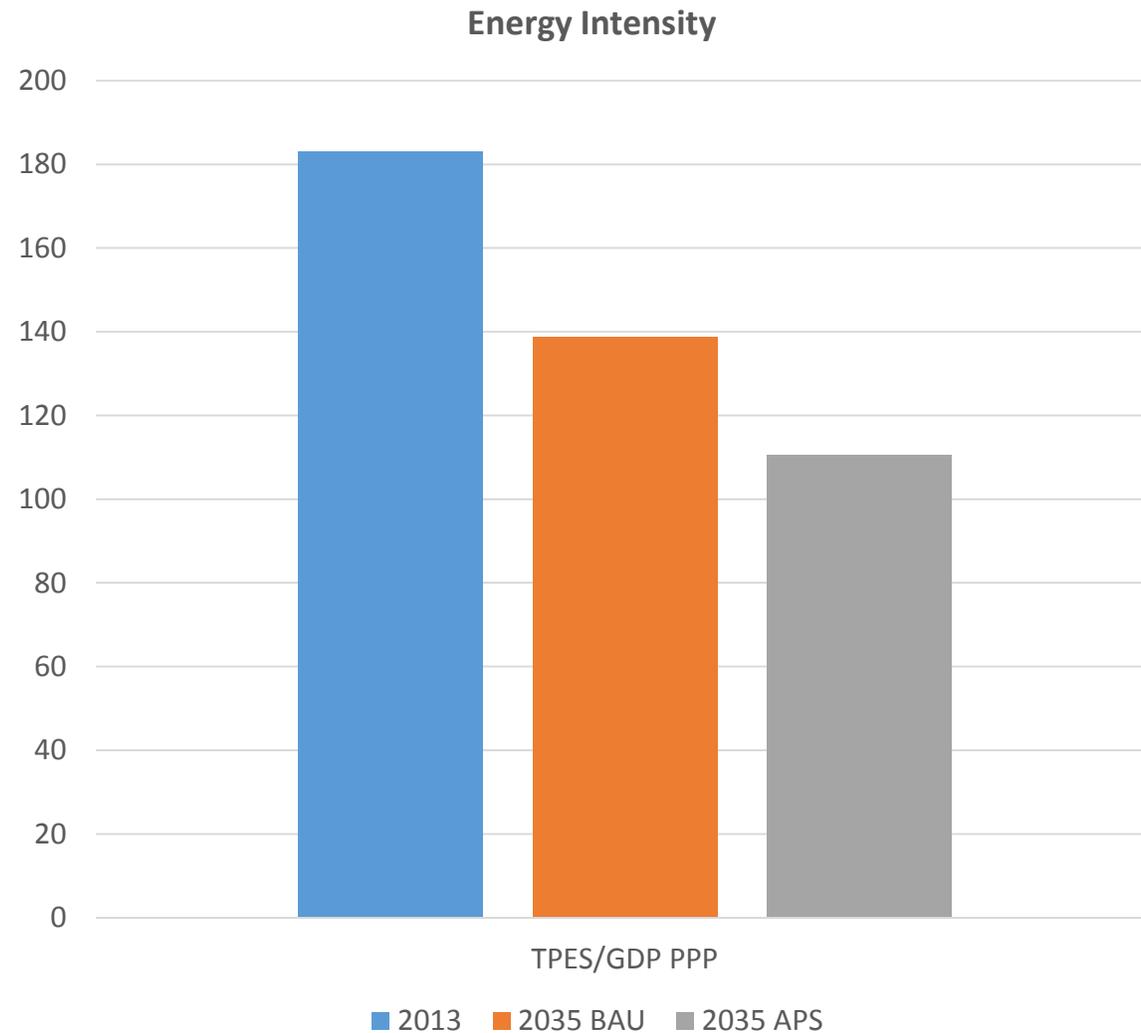
Total Final Energy Consumption (TFEC);
in ktoe, per fuel type



Electricity Generation



- For the electricity sector, the installed capacity about 154 GW in 2013 and expected to reach 211 GW in 2030
- Presently there is still about 22% of the ASEAN population without electricity
- ASEAN is committed to “greener” energy - decarbonizing the electricity sector is a goal
- Renewable energy total installed capacity in the ASEAN increased from 23 GW in 2013 to 31 GW in 2013.



Energy Efficiency and Conservation

- ✓ Develop Energy Efficiency Policy and Build Capacity
- ✓ To pursue the aspirational goal of reducing regional energy intensity of at least 8% by 2015 based on 2005 level
- ✓ Promote good energy management practices, especially for industrial and commercial sectors

Challenges



Energy is a critical Enable - all societies need secure and affordable energy to develop :

- ✓ Transport
- ✓ Power Sector
- ✓ Industrial
- ✓ Commercial



ASEAN's Challenges

- ❖ Security
- ❖ Affordability
- ❖ Environmental Sustainability
- ❖ Energy Market Integration

ASEAN Plan of Action for Energy Cooperation (APAEC) 2010-2015

“Bringing Policies to Actions: Towards a Cleaner, more Efficient and Sustainable ASEAN Energy Community”

1. ASEAN Power Grid

- ✓ Implementation of the ASEAN Interconnection and to further harmonize technical standards and operating procedures as well as regulatory and policy frameworks

2. Trans-ASEAN Gas Pipeline

- ✓ Trans-ASEAN Energy Network comprising of the Trans-ASEAN Gas Pipeline (TAGP) - involves the construction of 4,500 kilometers of pipelines - 13 approved pipelines

3. Coal & Clean Coal Technology

- ✓ Strengthen Institutional and Policy Framework
- ✓ Promote Coal and Clean Coal Technologies & Intra-ASEAN Coal Trade & Investment
- ✓ Enhance environmental planning and assessment of coal projects

4. Energy Efficiency and Conservation

- ✓ Develop Energy Efficiency Policy and Build Capacity
- ✓ To pursue the aspirational goal of reducing regional energy intensity of at least 8% by 2015 based on 2005 level
- ✓ Promote good energy management practices, especially for industrial and commercial sectors

5. Renewable Energy

- ✓ Utilization of RE sources to achieve the 15% target share of RE in ASEAN power generation mix
- ✓ Promote the commercial development and utilization of biofuels
- ✓ Develop ASEAN as a hub for renewable energy - information sharing and strengthen networks

6. Regional Energy Policy and Planning

- ✓ Enhance energy policy and supply security information sharing network
- ✓ Conduct capacity building in energy and environmental policy planning and energy supply security assessment
- ✓ Monitor and evaluate the progress of APAEC programs

7. Civilian Nuclear Energy

- ✓ Conduct capacity building among ASEAN Member States
- ✓ Strengthen public information and public education on nuclear power generation
- ✓ Strengthen institutional, legal and regulatory capacities on nuclear energy for power generation.



Thank You

www.aseanenergy.org