



**PETRONAS**

# **Gas Development & Infrastructure in Malaysia**

## **Presentation to IGU Committee**

5<sup>th</sup> September 2013

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# PETRONAS was formed as the custodian and manager of Malaysia's petroleum resources



## Creation of PETRONAS

## Capability & Capacity Building

## A Global Player

### 1970s

- Incorporation of PETRONAS on 17th August 1974 under the Malaysian Companies Act of 1965
- The Malaysian Petroleum Development Act 1974 vested upon PETRONAS the exclusive rights to explore, develop and produce petroleum resources within Malaysia
- First PSCs signed in 1976

### 1980s-2000s

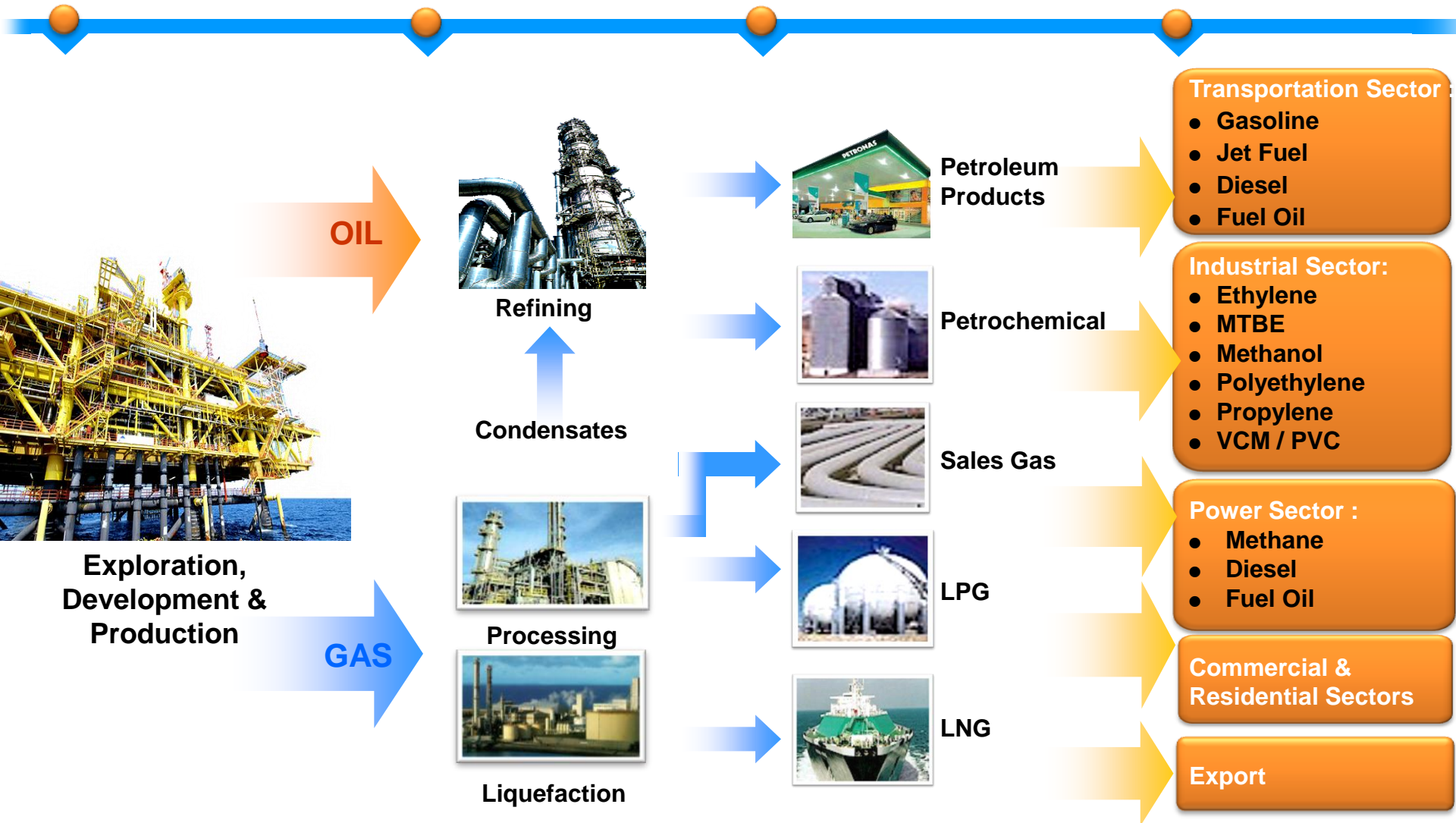
- Involvement in gas exploration & development activities
- Beginning of downstream gas projects
- Expansion of other domestic downstream projects such as Refining, Petrochemicals & Logistics & Maritime
- International Ventures

### After 35 Years - Today

- PETRONAS has evolved into a fully integrated multinational oil and gas company
- Worldwide expansion in more than 30 countries
- Revenues from overseas operations
- Production of oil and gas from international ventures

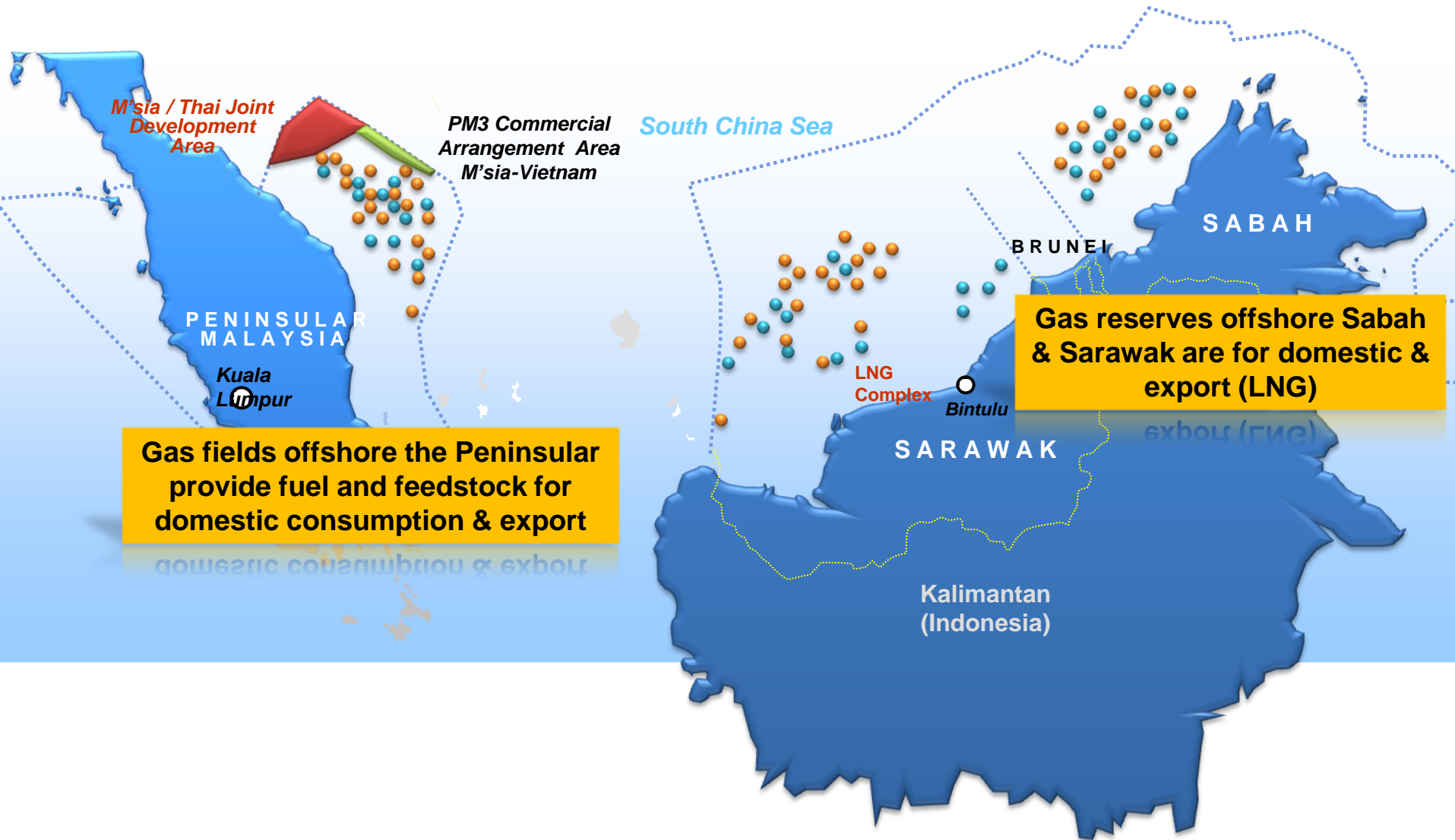


# Since 1980s, PETRONAS began developing its own capabilities and has evolved into a fully integrated multinational oil and gas company





# Malaysian gas utilization strategy began by focusing both on domestic and export



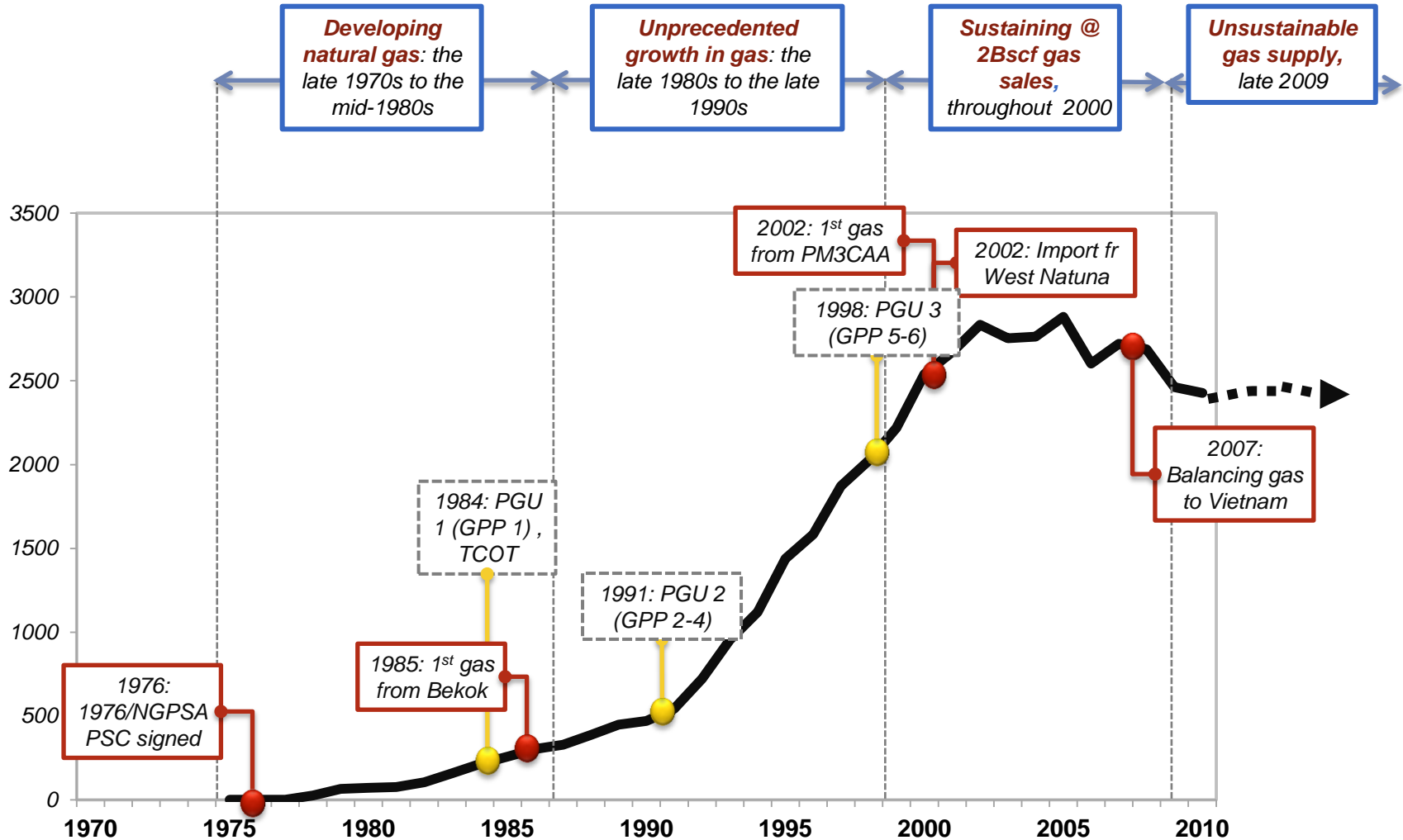


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# From humble beginnings in late 1970s to an unprecedented growth of gas in late 1980s till today...

## Historical Evolution of Peninsular Malaysia Gas Production (Gross)

Unit: mmscf/d





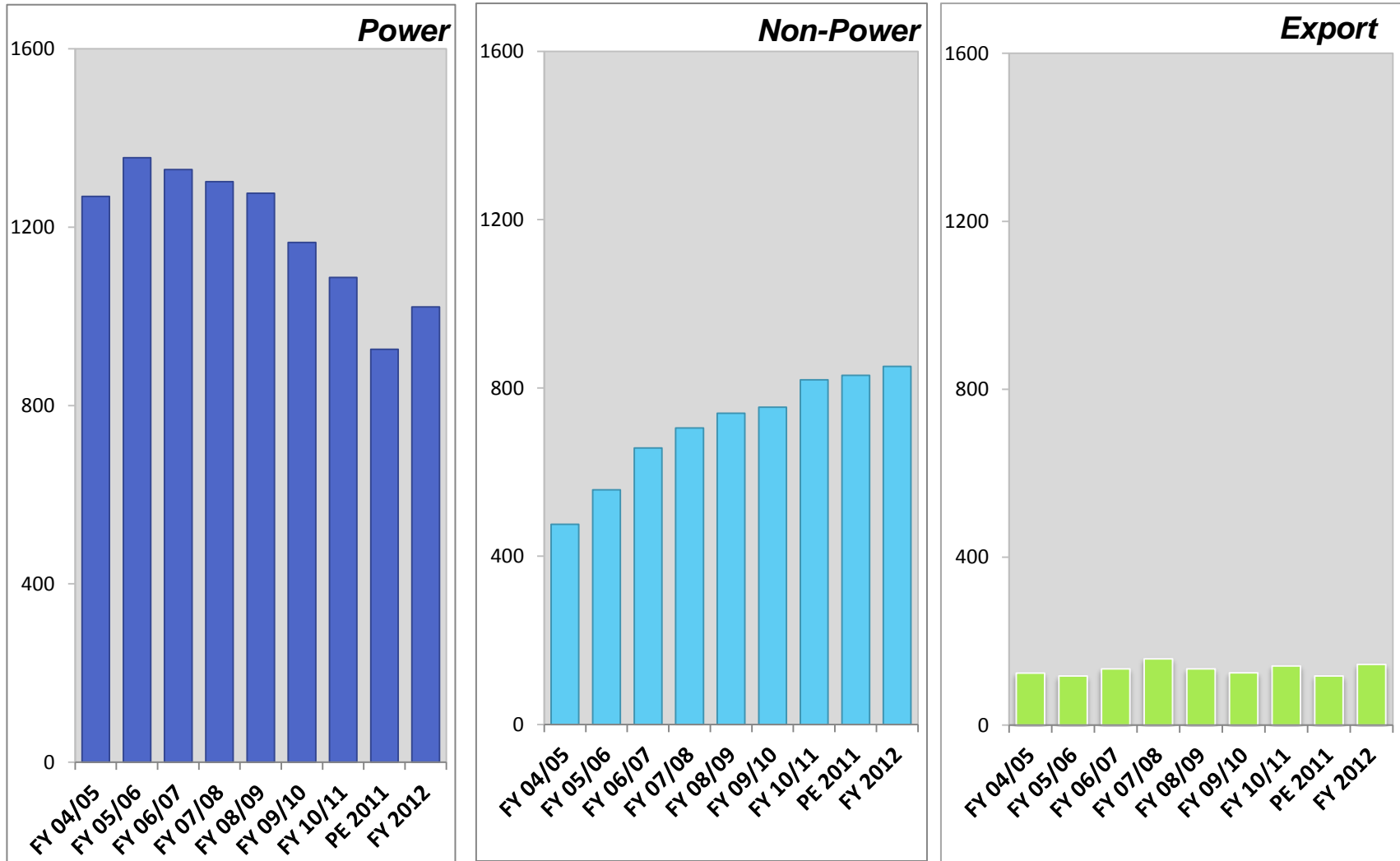
# Demand over the years has increased....

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## Historical Gas Demand of Peninsular Malaysia (Breakdown by Customer Type)

Unit: mmscf/d

— Supply (Actual)

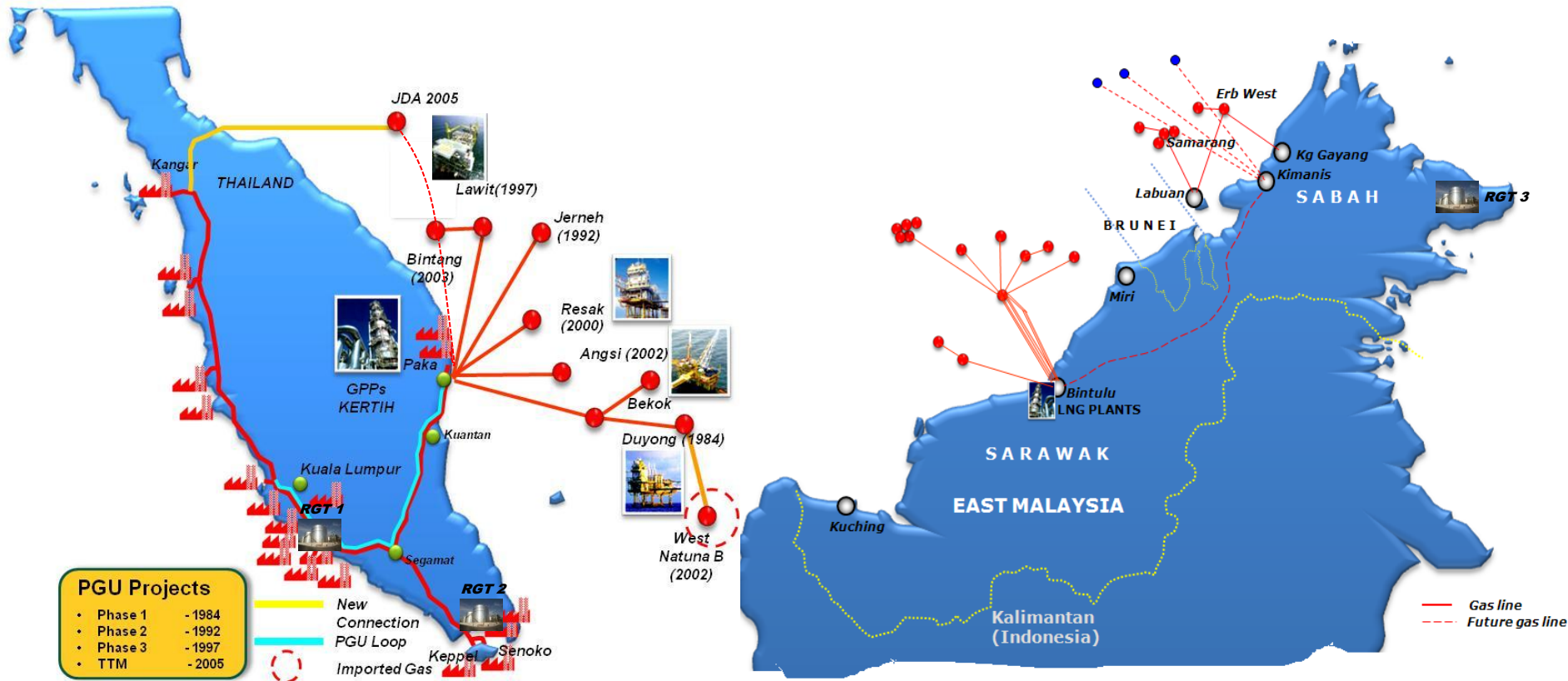






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# Peninsular Malaysia is a single market, whereas Sabah & Sarawak market remains fragmented



PGU: Peninsular Gas Utilization



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# Government and its NOC have been dominant in the gas industry development

## MALAYSIA - KEY PLAYERS & REGULATORY FRAMEWORK

### Upstream – E & P

- **Private / GOC**
  - PETRONAS
  - Production Sharing Contract Partners

### Downstream – Transmission / Exporter

- **Government**
  - Economic Planning Unit
  - Ministry of Energy, Green Technology and Water (KeTTHA)
- **Private / GOC**
  - Petronas Gas Berhad
  - Malaysia Liquefied Natural Gas Sdn Bhd

### Downstream - Distribution

- **Regulatory Body**
  - Energy Commission
- **Private**
  - Gas Malaysia Bhd
  - Sabah Energy Corporation Sdn Bhd

Gas Supply Act 1993

- Pragmatic policies were also put in place to ensure its growth and sustainability:
  - Industry Policies
  - Price Policies

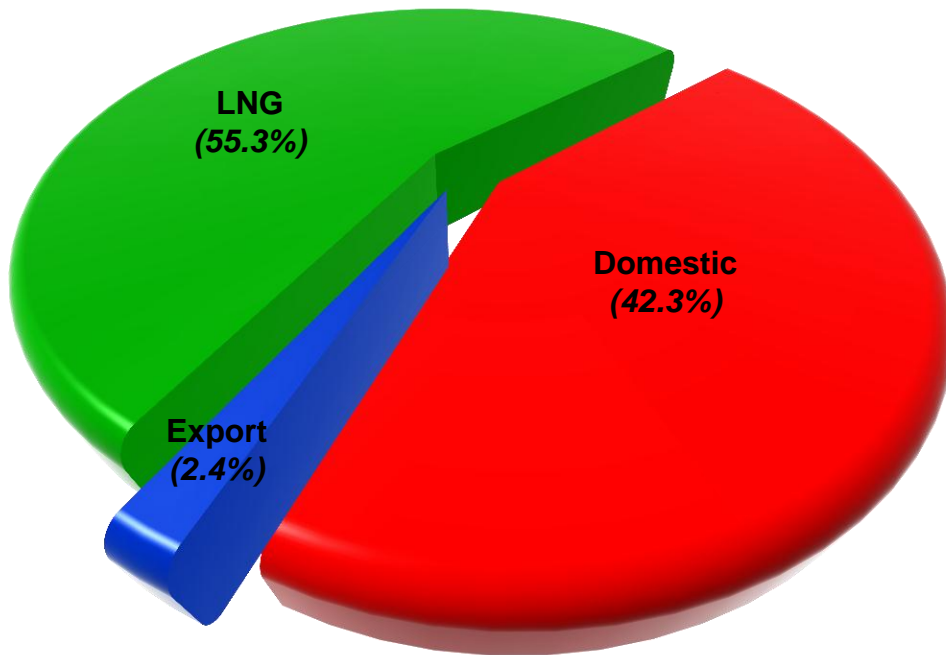




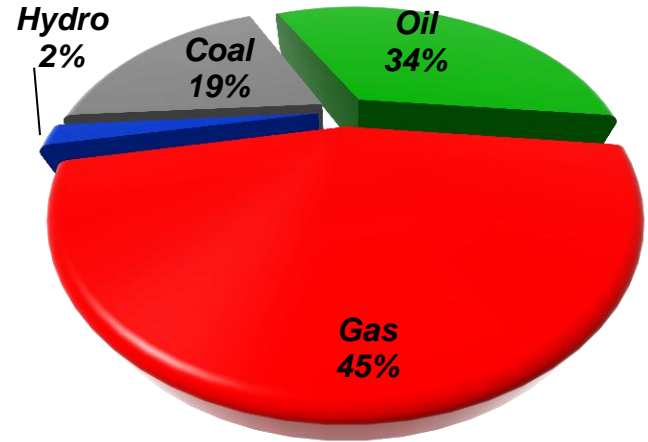
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# Gas will remain influential in Malaysia's economic growth

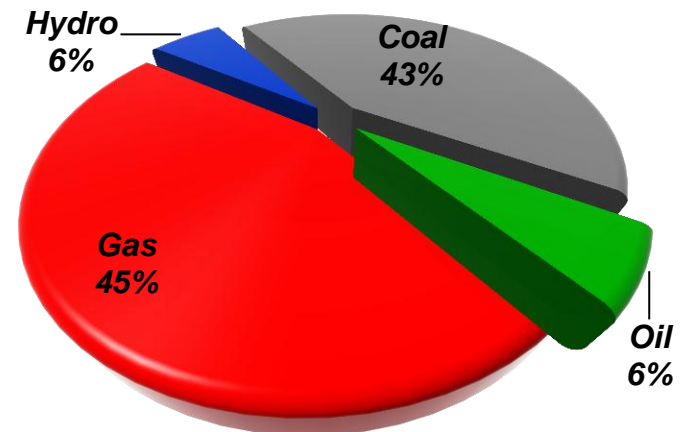
### Malaysia Total Gas Demand (2012)



### Primary Energy Mix (2011)



### Power Generation Mix (2011)





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# Malaysian LNG production – existing and planned

## On-going/ Planned LNG Projects

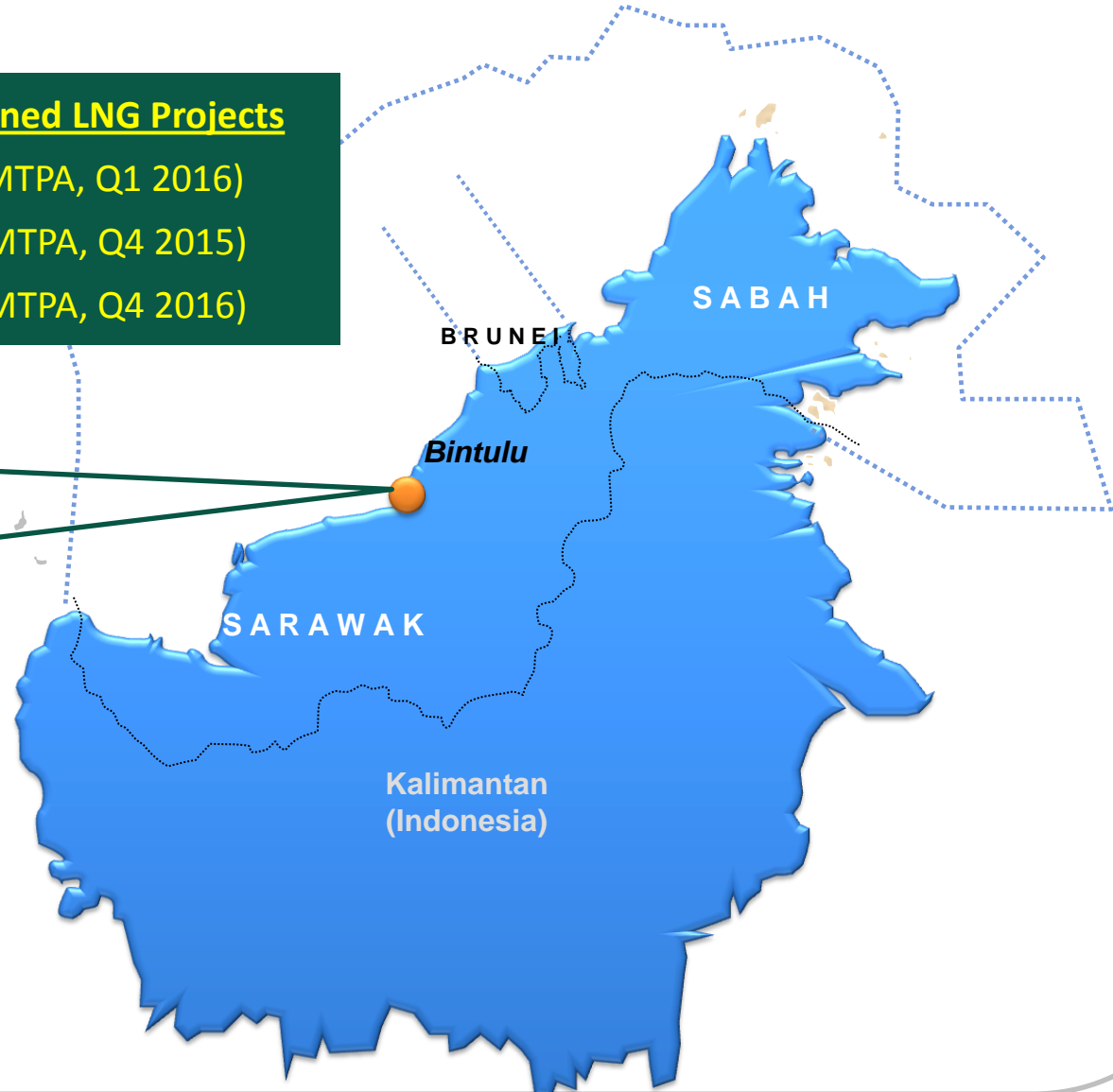
**Train 9** (3.6 MTPA, Q1 2016)

**FLNG 1** (1.2 MTPA, Q4 2015)

**FLNG 2** (1.5 MTPA, Q4 2016)

## PETRONAS LNG Complex - Capacity

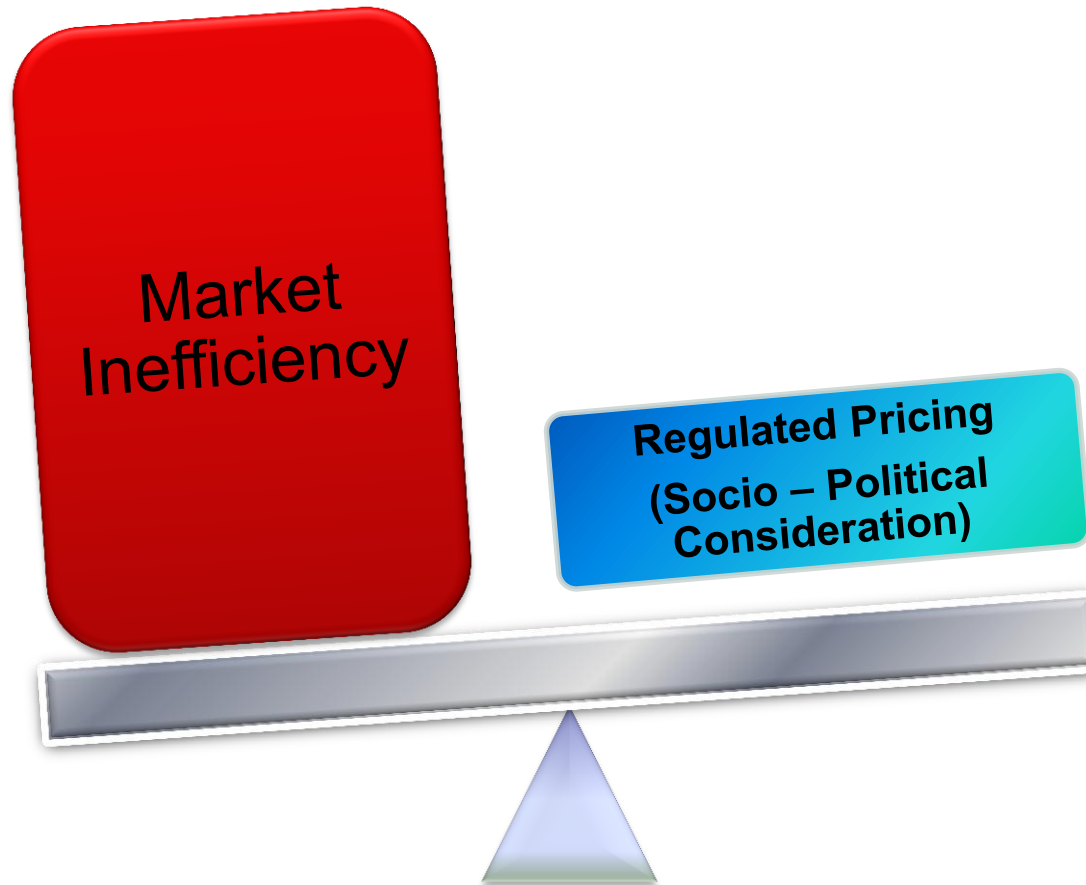
<b>MLNG (3 Trains)</b>	<b>8.4 mtpa</b>
<b>MLNG 2 (3 Trains)</b>	<b>9.6 mtpa</b>
<b>MLNG 3 (2 Trains)</b>	<b>7.7 mtpa</b>
<b>Total</b>	<b>25.7 mtpa</b>





## Prolonged regulated pricing causes market imbalance & inefficiencies

- Gas shortage
- Cost of new supplies
- Inefficient usage





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# Prolonged regulated pricing causes market imbalance & inefficiencies

## Infrastructure

*Conduit to diversify sources of gas supplies via LNG imports*

- **Regasification Terminals**
  - Sg. Udang, Melaka
  - Pengerang, Johor
  - Lahad Datu, Sabah

## Market Rules, Regulation & Enforcement

*Clear & transparent rules to facilitate supply competition and safe utilisation of gas*

- **Third-party Access**
  - *Competition will help ensure gas is efficiently priced*
- **Rules for safe utilisation of gas with consistent enforcement**
  - *Effectively enforced rules will enhance the attractiveness of gas as a safe, reliable source of clean energy*

## Stable Policy Framework

*Predictability and credibility for effective long-term planning*

- **A robust National Energy Policy that comprehensively internalises Malaysia's energy challenges**
  - *Frequent policy changes will create unacceptably high risk for investors and lead to underinvestment*

## Pricing Mechanism

*Prices that incentivise timely availability of supplies*

- **Gas market set by competitive gas market**
- **Phasing out regulated gas pricing**



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**THANK YOU**