

# SUSTAINABLE ENERGY INITIATIVES

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## EMPHASIS

- ENERGY SECURITY
- ECONOMIC EFFICIENCY
- ENVIRONMENTAL & SOCIAL CONSIDERATION

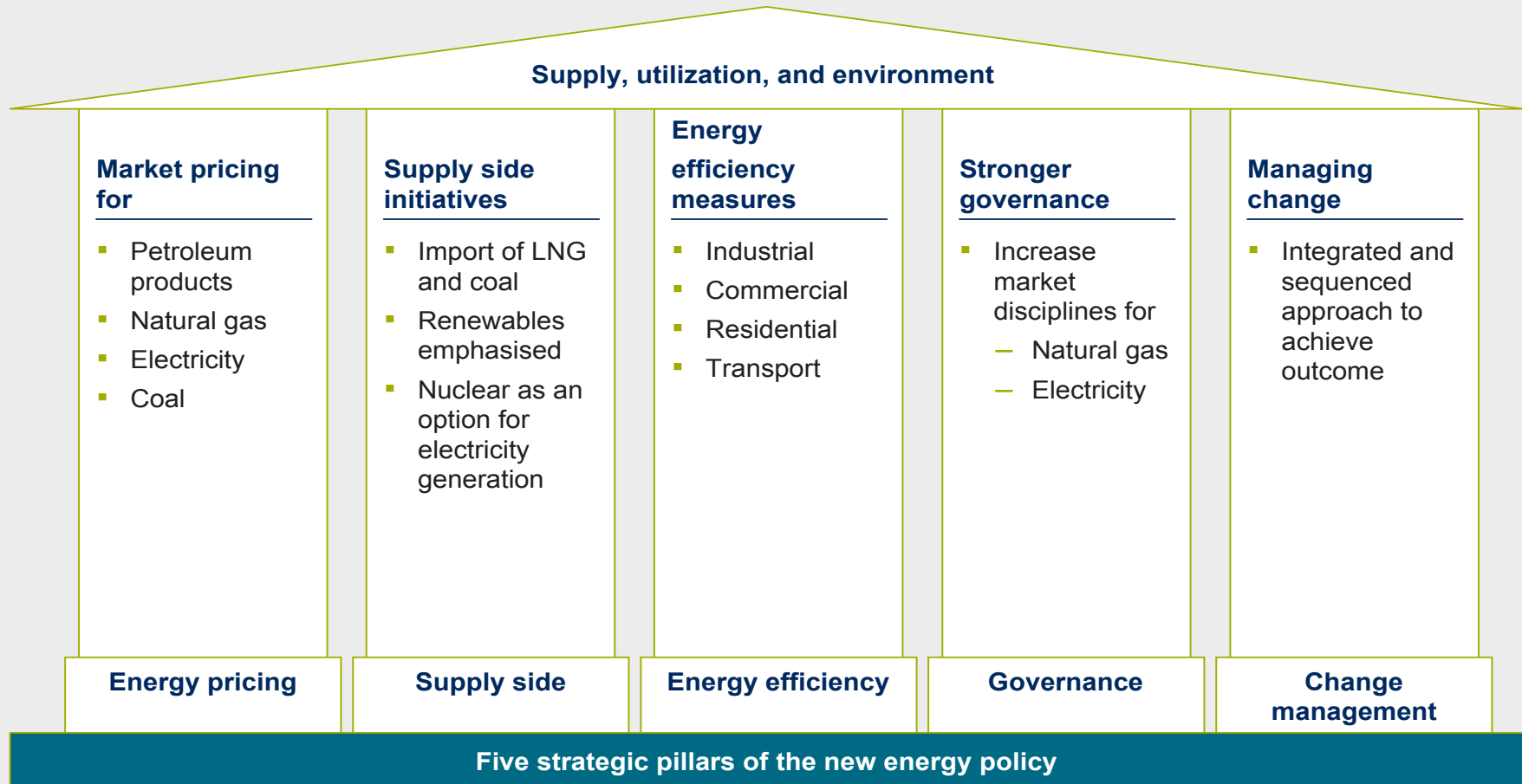
## STRATEGIC PILLARS

- initiatives to secure and manage reliable energy supply;
- measures to encourage energy efficiency (EE);
- adoption of market- based energy pricing;
- stronger governance and managing change,

## ENERGY MIX

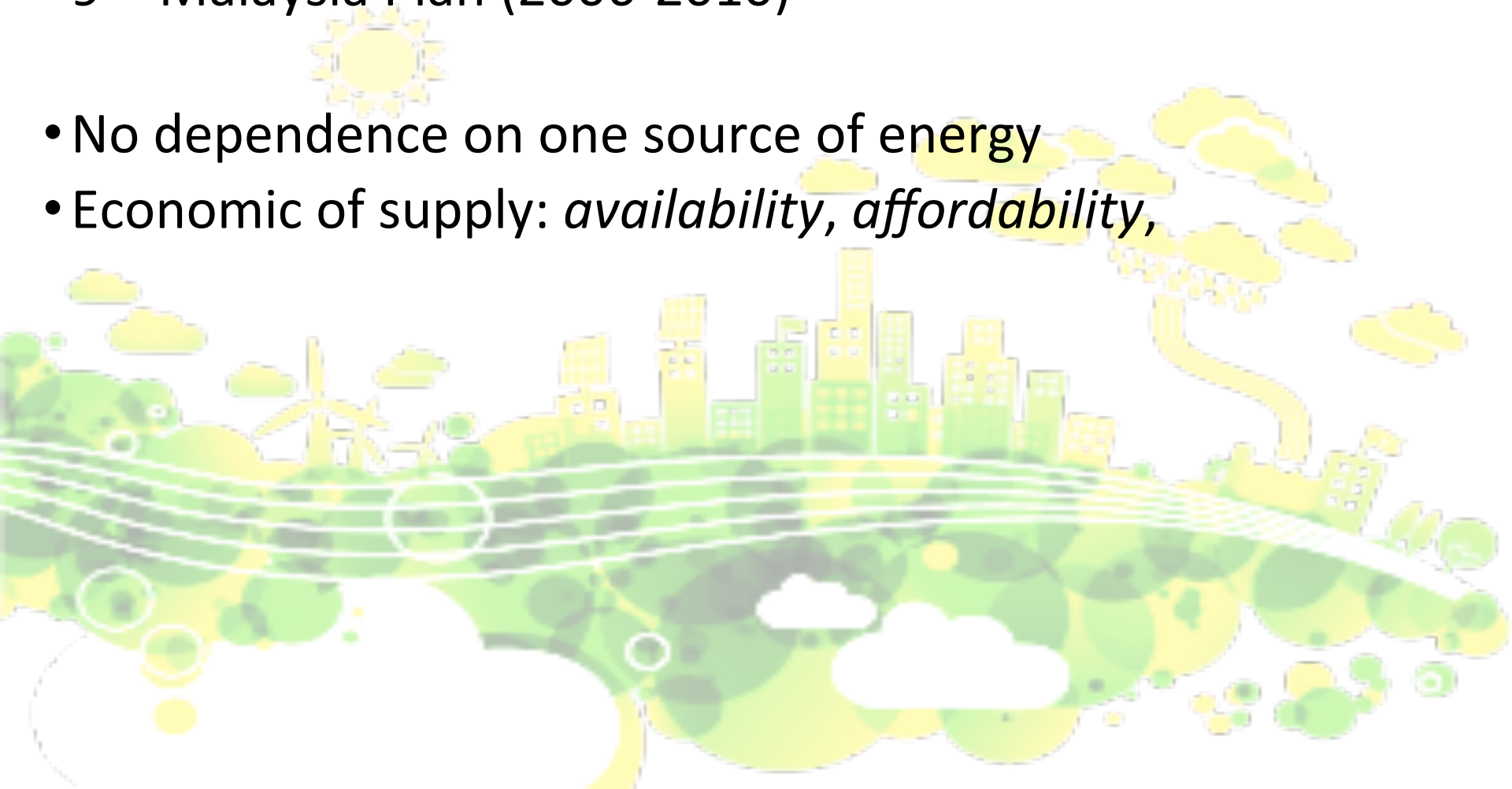
*ACCESSIBILITY,  
AVAILABILITY,  
AFFORDABILITY,  
ACCEPTABILITY*

## Five strategic pillars of the new energy policy



## SECURITY OF SUPPLY

- 56% natural gas, 36% coal, 6% hydro, 0.2% oil, 1.8% RE – 9<sup>TH</sup> Malaysia Plan (2006-2010)
- No dependence on one source of energy
- Economic of supply: *availability, affordability,*



## ENVIRONMENT

- 56% natural gas, 36% coal, 6% hydro, 0.2% oil, 1.8% RE – 9<sup>TH</sup> Malaysia Plan (2006-2010)
- 2014 coal represents about 42% of the fuel mix for the power sector. By 2020, it will account for 57.8% of the fuel mix
- **Carbon intensity reduction target: 40% lower than 2005 levels by 2020**
- Clean coal technology. 4 coal-fired power plants that utilize Clean Coal Technology. Manjung Power Station (2100MW) – compliance to the World Bank Standards on the Clean Coal Technology.

## RENEWABLE ENERGY

- **1.8% in the fuel mix : RE 9<sup>th</sup> MP**
- **2015 – RE 5.5%; 2020 – RE 11%**
- **Catalyst : Feed-In- Tariff**
- Electricity from renewable resources **to be sold to power utilities** at a fixed premium **price** and for specific **duration**
- **Green Technology Financing Scheme (GTFS)-** easier access to financing from the private and commercial financial institutions – accelerate green investment



Solid Waste



Biomass (Empty Fruit Bunch)



Biogas (Palm Oil Mill Effluent)



Small Hydro



Solar



Incinerators



Biomass Power Plant



Biogas Power Plant



Small Hydro Plant



Solar Photovoltaics (PV)

## NEW SOURCES



Geothermal



Wind

- Green Building Approach
  - *insulated concrete roof, roof/floor slab cooling,*
  - *advance demand control system for lighting,*
  - *high efficient lighting, energy efficient equipment,*
  - *high efficient motor, low loss cable*
- Retrofitting : lighting, air condition etc
- Smart Grid – Smart Meter
  - benefits to utilities and consumers – big improvements in
    - energy efficiency on the electricity grid/ energy user home
- Mindset Change in consumption
- eTou – Enhanced Time of Use (pricing)



# THANK YOU