

SUSTAINABLE ENERGY INITIATIVES

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ENERGY POLICY

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



STRATEGIC PILLARS

Five strategic pillars of the new energy policy

Supply, utilization, and environment **Energy Market pricing** Supply side efficiency Stronger Managing initiatives governance change for measures Import of LNG Integrated and Petroleum Industrial Increase products and coal market sequenced Commercial disciplines for approach to Natural gas Renewables Residential achieve emphasised Natural gas Electricity Transport outcome Nuclear as an Electricity Coal option for electricity generation **Energy pricing** Supply side **Energy efficiency** Change Governance management Five strategic pillars of the new energy policy

SOURCE: Economic Planning Unit



ENERGY MIX: SUPPLY SIDE INITIATIVE

SECURITY OF SUPPLY

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



ENERGY MIX: SUPPLY SIDE INITIATIVE

ENVIRONMENT

- 56% natural gas, 36% coal, 6% hydro, 0.2% oil, 1.8% RE
 - 9TH 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.



ENERGY MIX: SUPPLY SIDE INITIATIVE

RENEWABLE ENERGY

- •1.8% in the fuel mix: RE 9th 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



RENEWABLE ENERGY SOURCES IN MALAYSIA

Solid Waste

Biomass (Empty Fruit Bunch)

Biogas (Palm Oil Mill Effluent)

Small Hydro

Solar















Biomass Power Plant



Biogas Power Plant



Small Hydro Plant



Solar Photovoltaics (PV)

NEW SOURCES



Geothermal



Wind



ENERGY EFFICIENCY

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





Ministry of Energy, Green Technology and Water