

**A BRIEF PRESENTATION
ON THE
MALAYSIA ELECTRICITY
SUPPLY INDUSTRY**

PRESENTATION OUTLINE

1. Country Profile
2. Energy Statistics
3. Relevant Acts & Policies
4. Energy Diversification Index
5. Electricity Market Structure
6. System Profile
7. Fuel Mix Trend in Power Generation
8. Fuel Mix Policy & Diversification Strategy

COUNTRY PROFILE

- Land Area: 303,252 km²
- Population: 27.2 million
- Labour Force: 11.0 million
- Employment: 10.7 million
- GDP : RM 641.9 billion
- GDP Growth Rate : 5.9%
- Per Cap Income : RM 23,115
- Major Exports: Electrical/Electronic, Palm-Oil, Petroleum/LNG

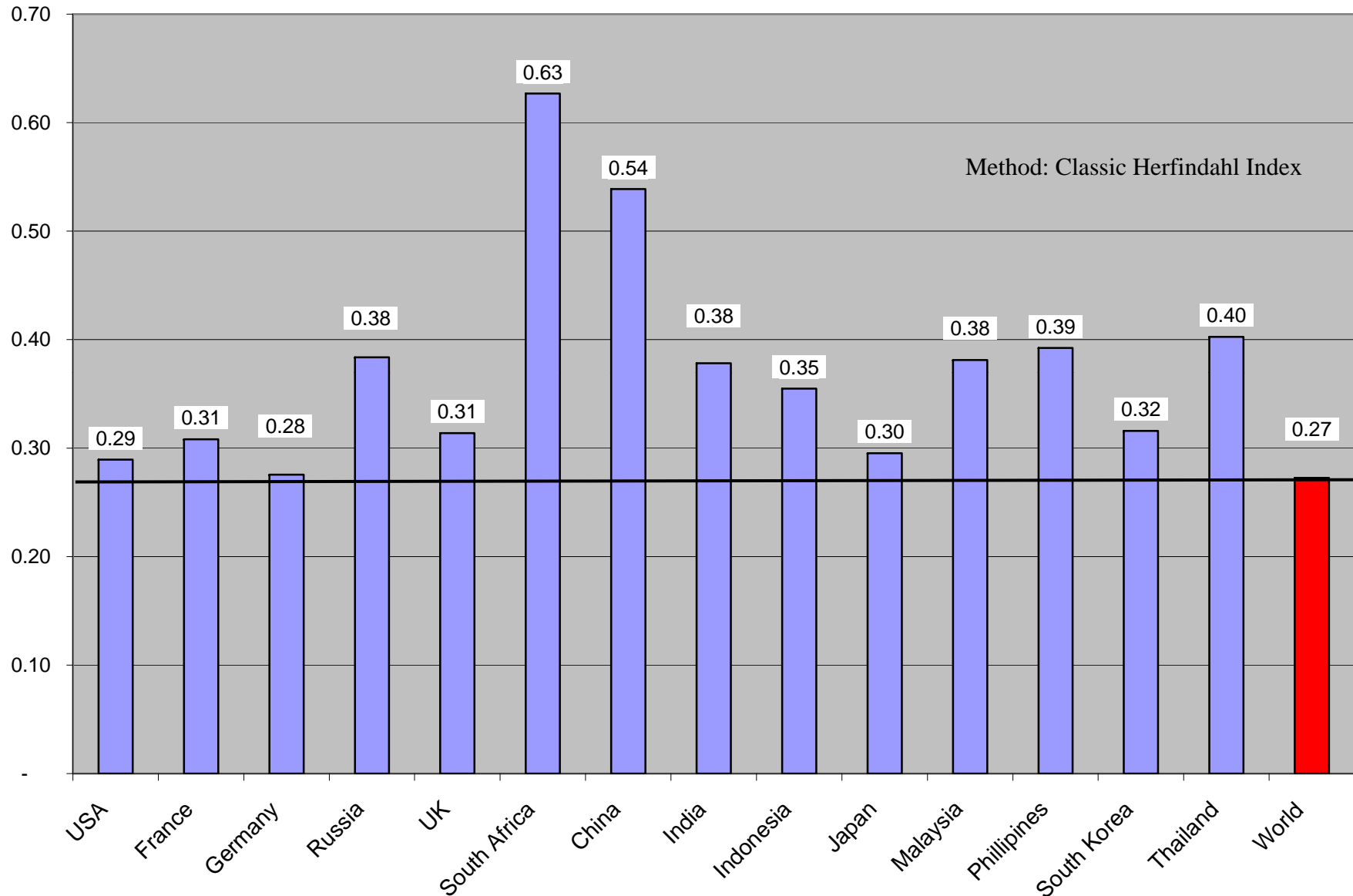
ENERGY STATISTICS

- Primary Energy Supply (ktoe): 67,878
- Final Energy Demand (ktoe): 40,318
- Electricity Demand (ktoe): 7,331
(GWh): 84,517
- Per capita
 - Primary Energy Supply (toe): 2.53
 - Final Energy Demand (toe): 1.50
 - Electricity Demand (kWh): 3,174

RELEVANT ACTS AND POLICIES

- Petroleum Development Act 1974
- Environment Act 1974
- Electricity Supply Act 1990
- Gas Supply Act 1993
- Energy Commission Act 2001
- National Petroleum Policy - 1975
- National Energy Policy – 1979
- National Depletion Policy – 1980
- Four Fuel Policy – 1981
- Five Fuel Policy – 2001
- National Policy on Environment - 2002

ENERGY DIVERSIFICATION INDEX

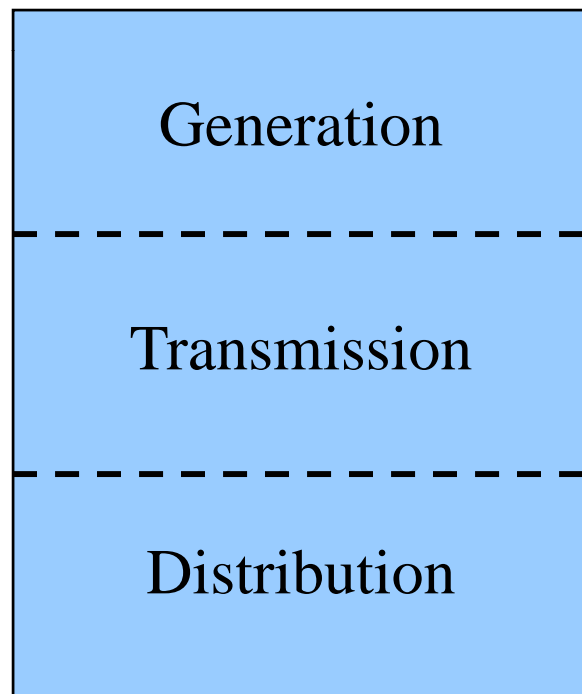


Fuel Options for Power Generation
22-23 Sept 2008, Bangkok

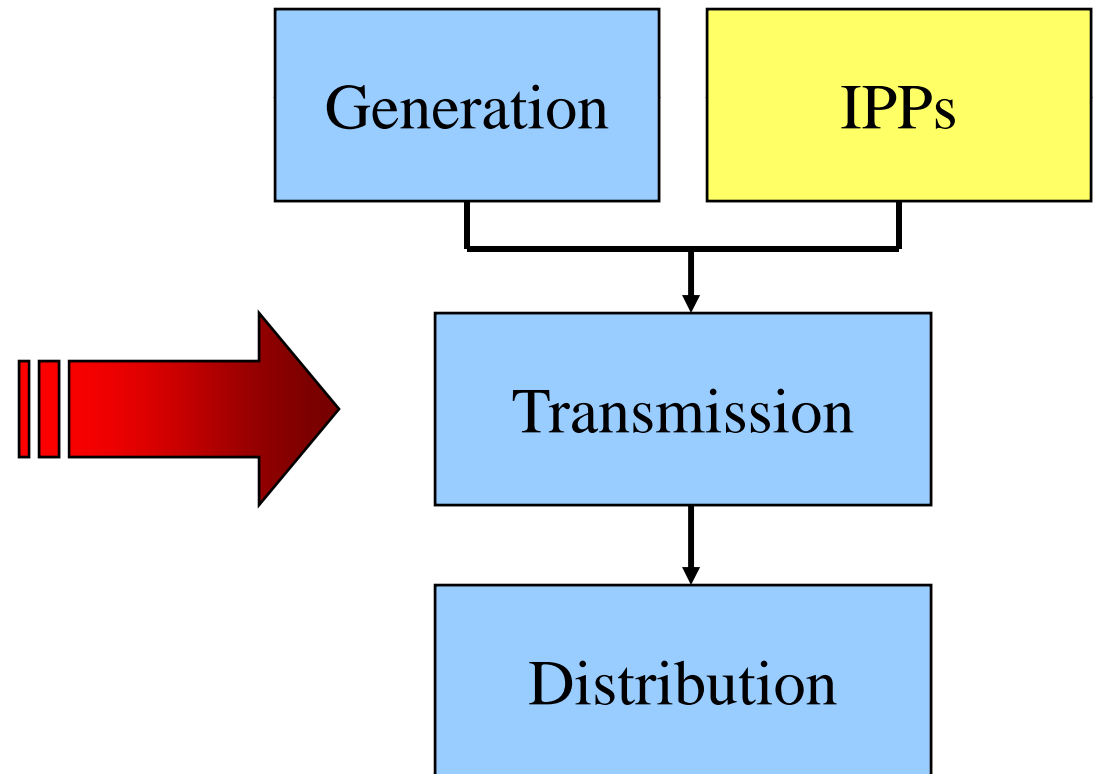
Source: BP Statistical Review of World
Energy 2008

ELECTRICITY MARKET STRUCTURE

**FULLY INTEGRATED
MONOPOLY**



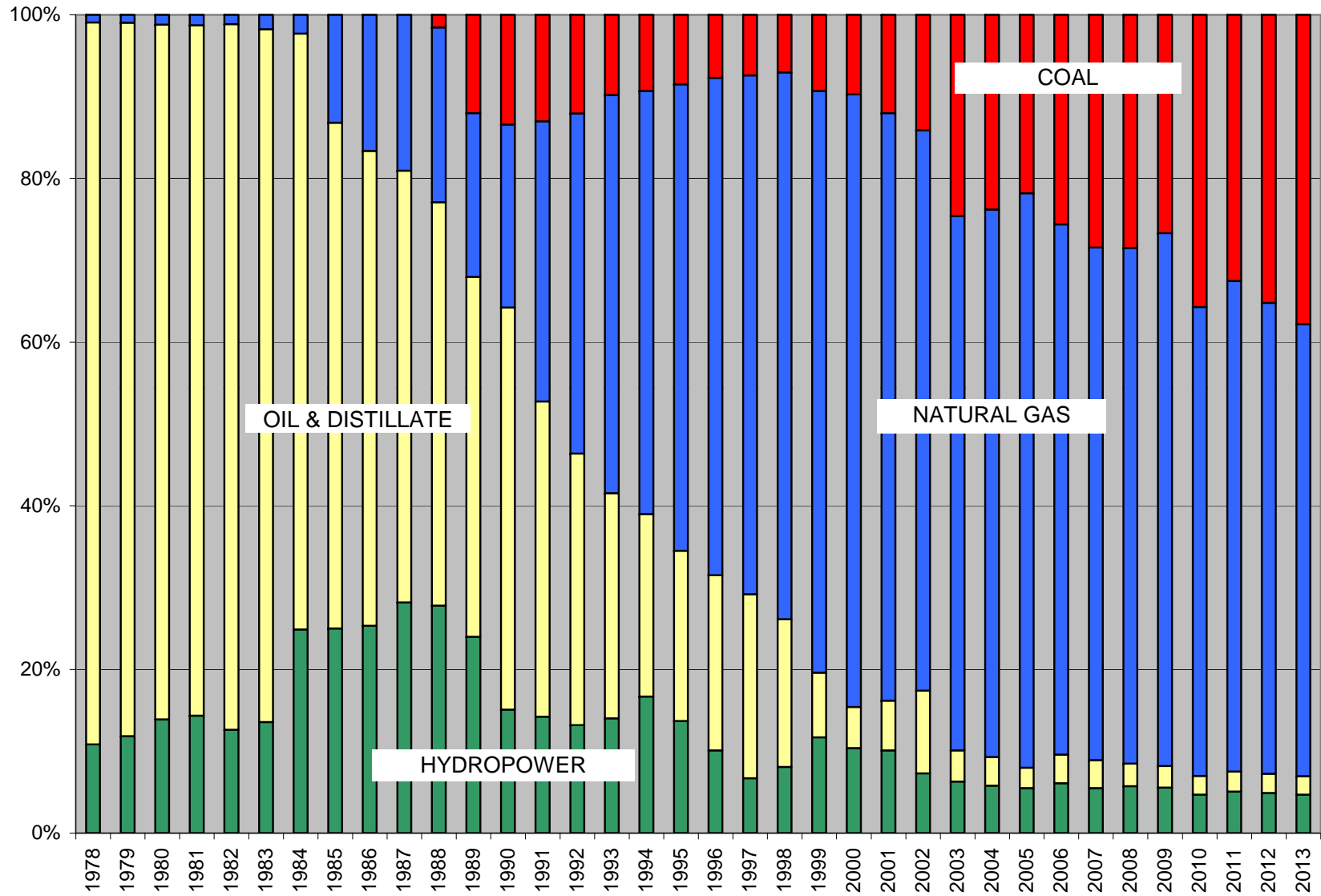
**MULTIPLE GENERATION
SINGLE BUYER**



SYSTEM PROFILE

- Main electric utilities: Tenaga Nasional Bhd, Sabah Electricity Sdn. Bhd. & Sykt SESCO Bhd.
- Total Consumer: 7.52 million
- Total Gen. Mix: 108,539 GWh
- Total Plant Mix: 23,535 MW (PM/Sabah/Sarawak : 92.0/3.9/4.1) plus 1,287 MW (Private Gen.)
 - Gas : 57.0%
 - Coal : 24.1%
 - Hydro : 8.4%
 - Oil/Diesel : 6.4%
 - Biomass/Others : 4.2%
- MD : PM / Sabah / Sarawak : 14,008 / 625 / 834
- By end 2010, additional capacity of 2,150 (PM), 200 MW (Sabah) and 380 MW (Sarawak) will be added to the systems.

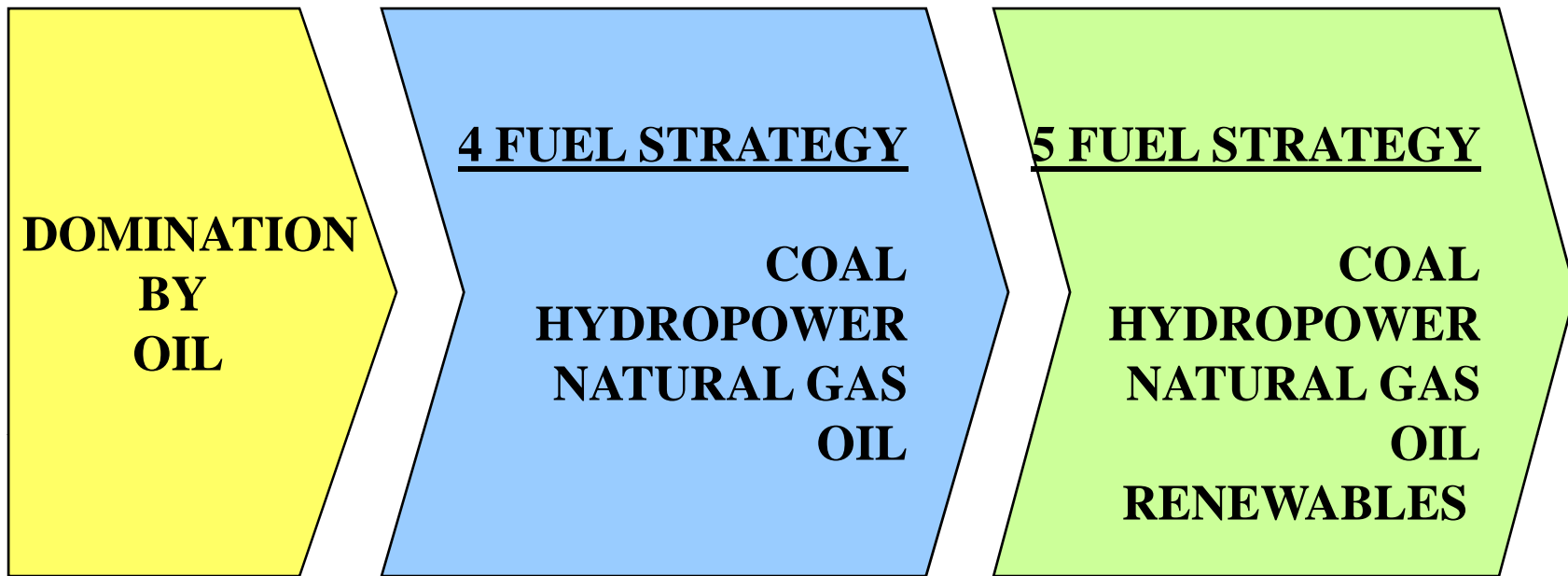
FUEL MIX TREND IN POWER GENERATION



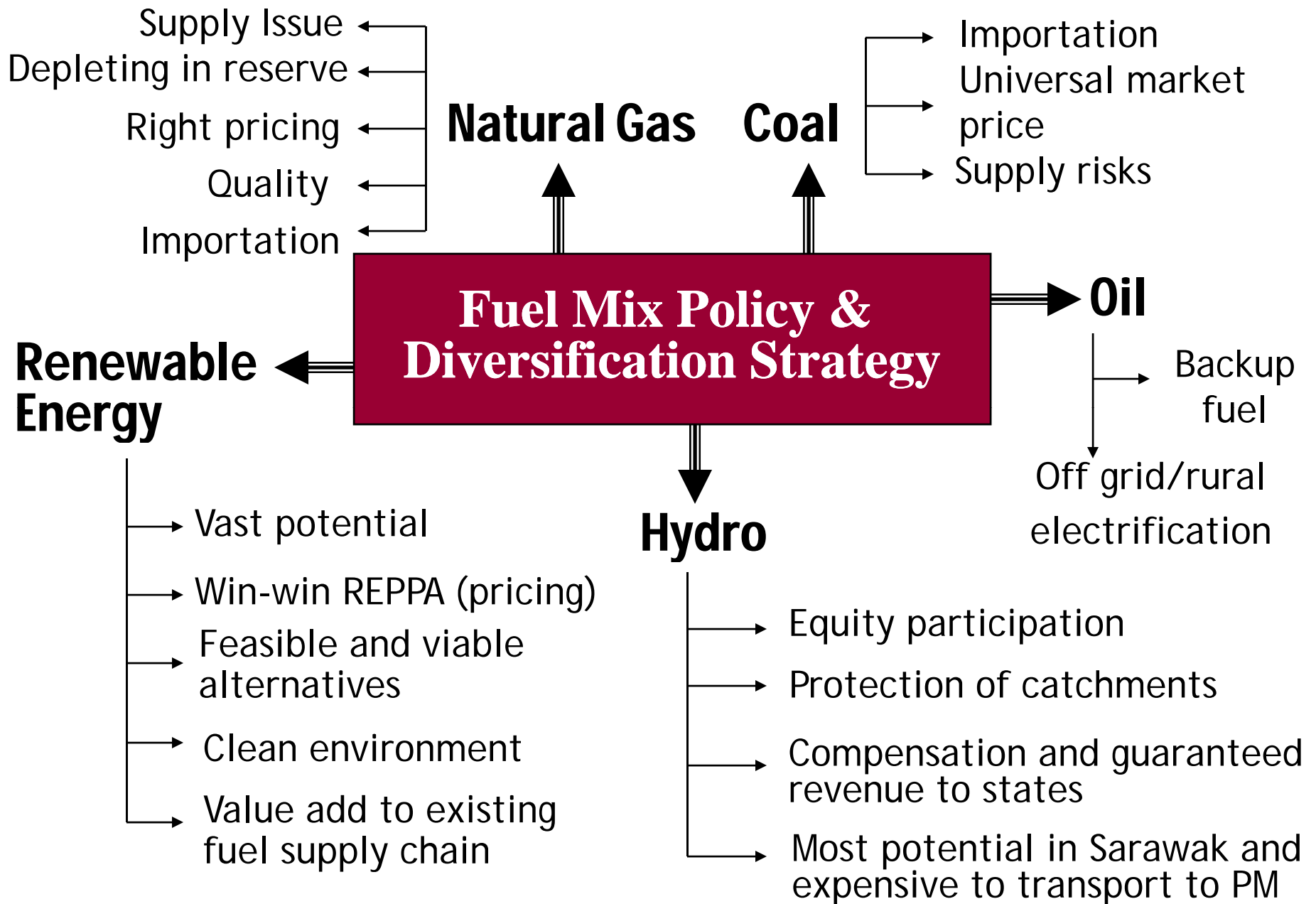
Fuel Options for Power Generation
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- Oil & Distillate also includes other fuels(ex. biomass, MSW etc).
- 2008-2013- EC's forecast.

FUEL MIX TREND IN POWER GENERATION



- Malaysia has experienced a staged shift in the country's fuel mix.
- Gas and coal as major fuels in the country's power fuel mix.
- Related policies have been introduced to steer the direction of Malaysia's energy sector.
- **Possibility:**
 - A net importer of crude oil in the near future.
 - A net energy importer (oil, gas and coal) in the medium term.



THANK YOU

Mohd Rashdan Abdul Razak
Ministry of Energy, Water and Communication, Malaysia
&
Mohd Rizal Ramli
Energy Commission, Malaysia

for

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