Renewable Energy Act of 2008

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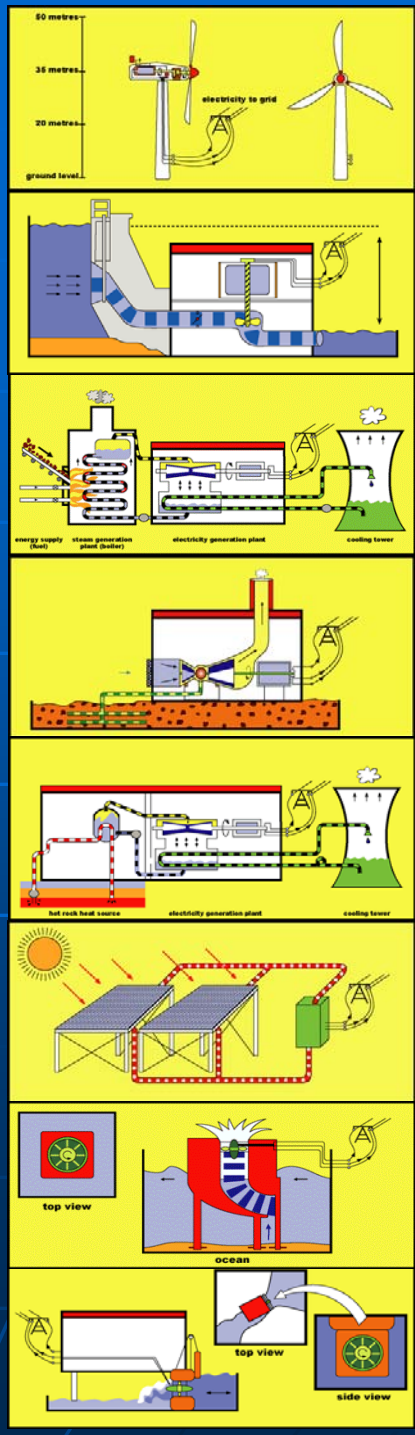
OIC – Assistant Secretary
Department of Energy

Department of Energy

Fuelling Philippine Development Through Greater Access to Energy



GOALS and OBJECTIVES

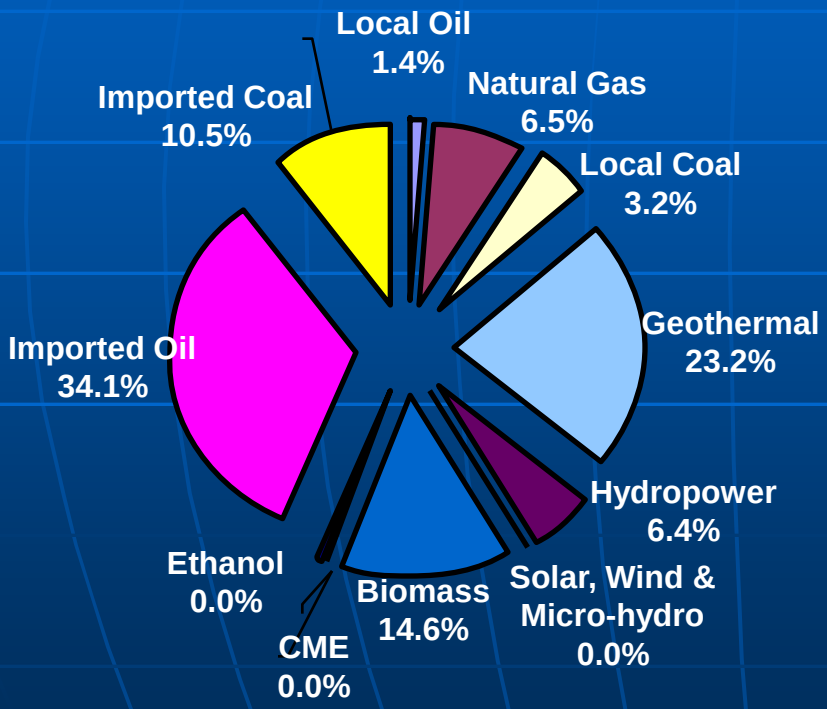
- **Achieve greater energy security through reliable and balanced energization;**
- **Implement energy sector reforms to bring about a competitive environment, consumer satisfaction and empowerment;**
- **Actively promote sustainable and efficient use of energy as well as the utilization of cleaner energy sources and technologies;**
- **Develop our indigenous and renewable energy resources; and,**
- **Develop alternative fuels for commercial application.**

Where are we now?

WHERE WE ARE NOW!

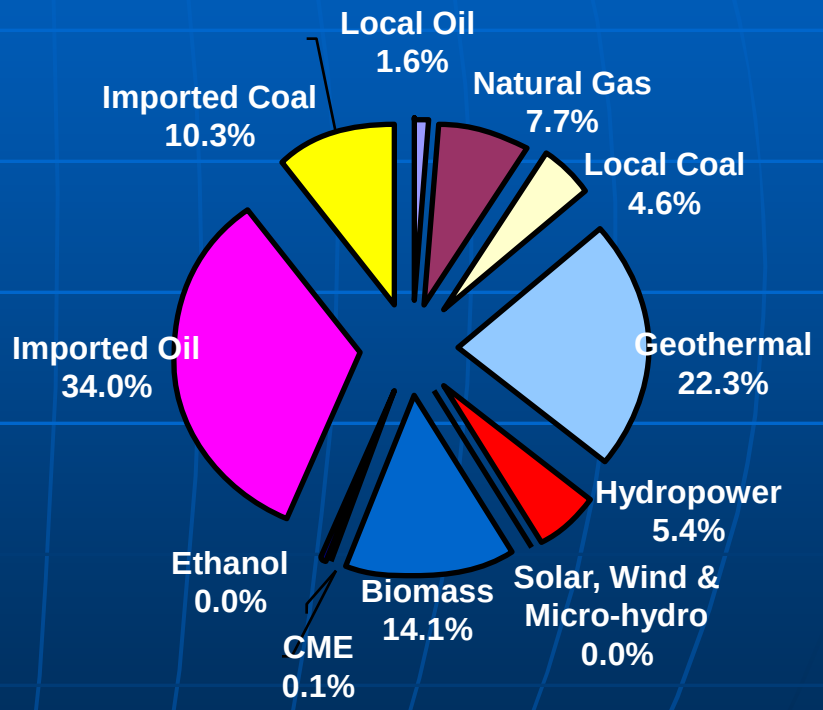
Self Sufficiency Level = 55.4%

2006



Self Sufficiency Level = 55.7%

2007

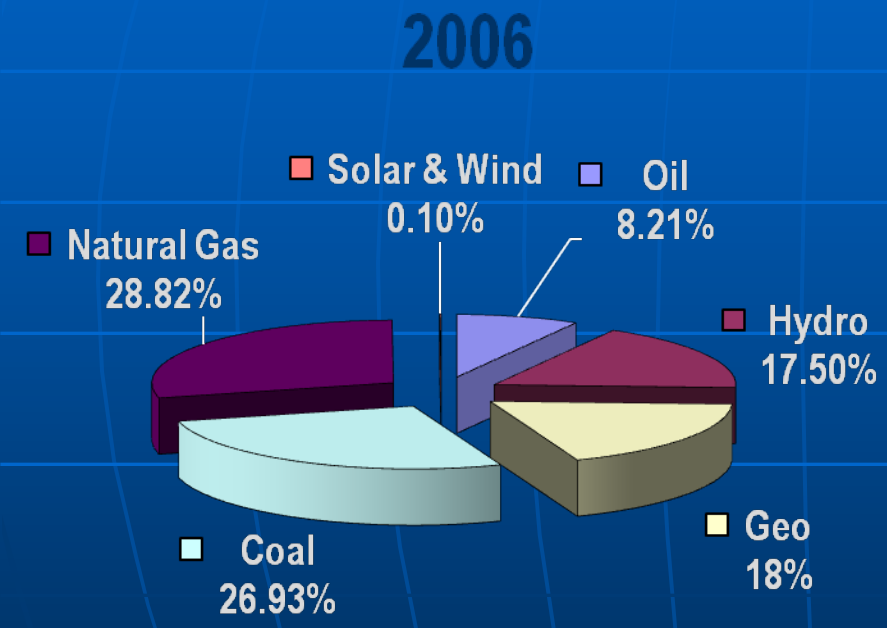


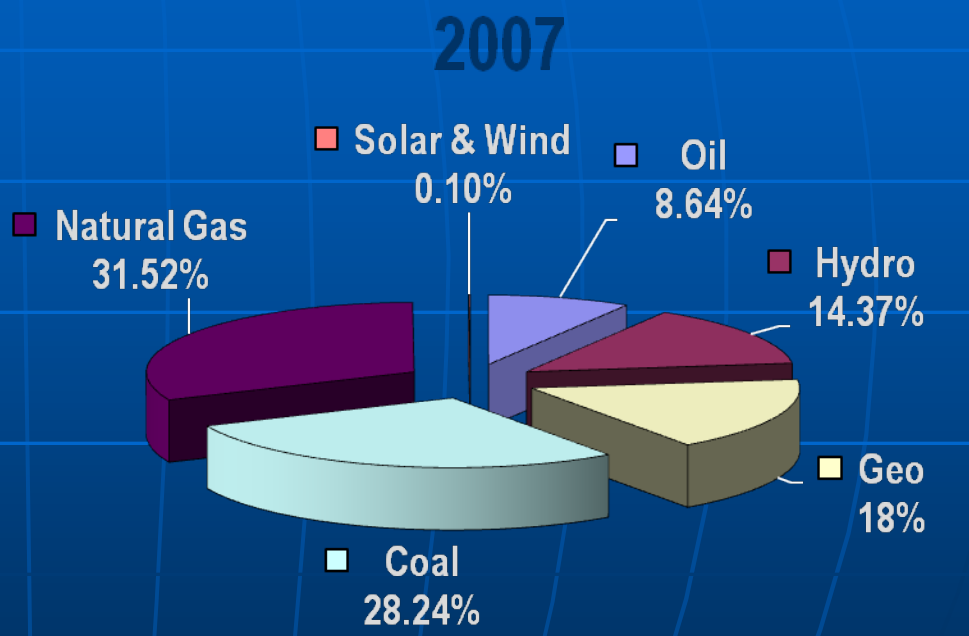
PRIMARY ENERGY MIX

WHERE WE ARE NOW!

Total Generation = 56,784 GWh
Self Sufficiency Level = 66.32%

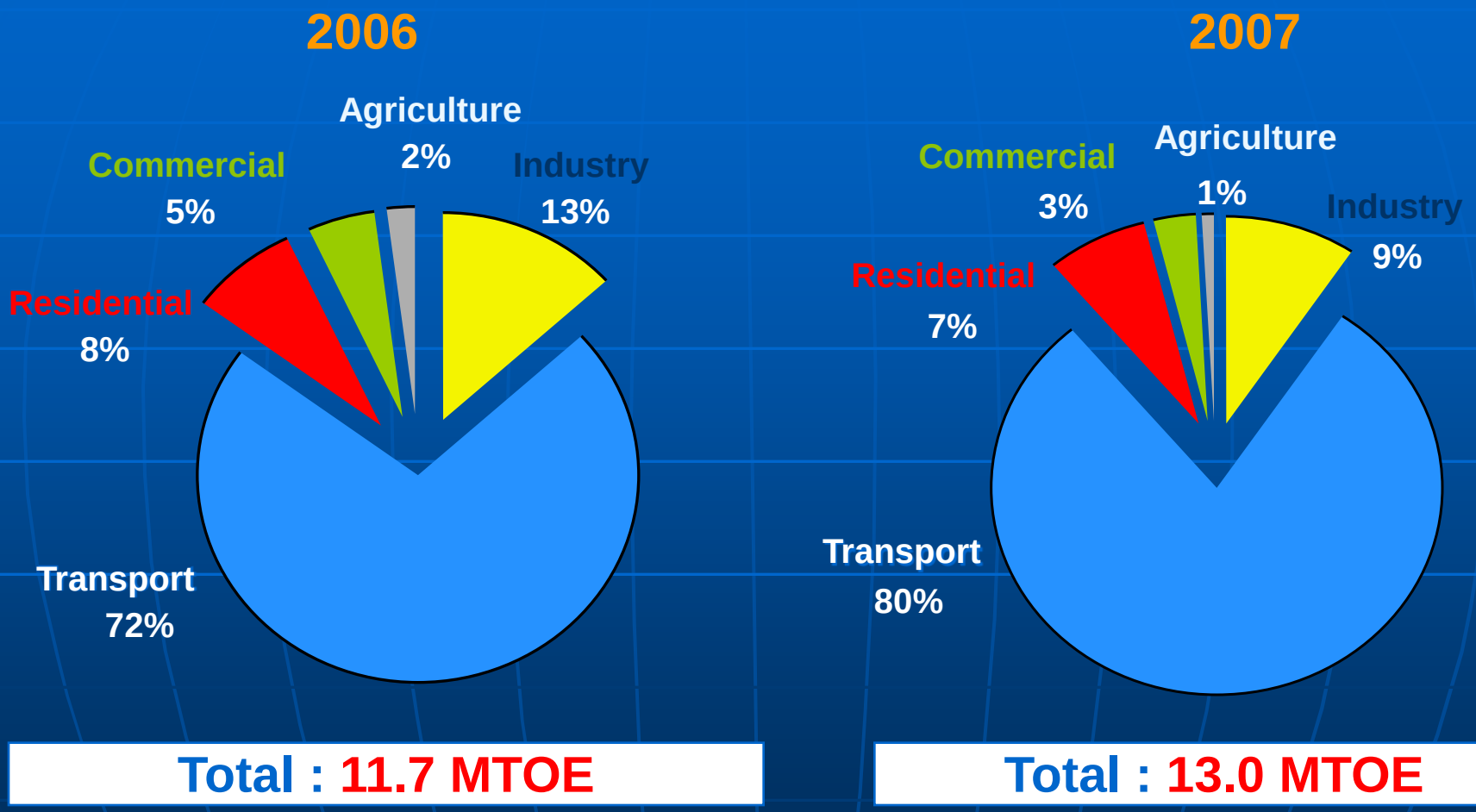
Total Generation = 59,612 GWh
Self Sufficiency Level = 64.49%





POWER GENERATION MIX

WHERE WE ARE NOW!



Total : 11.7 MTOE

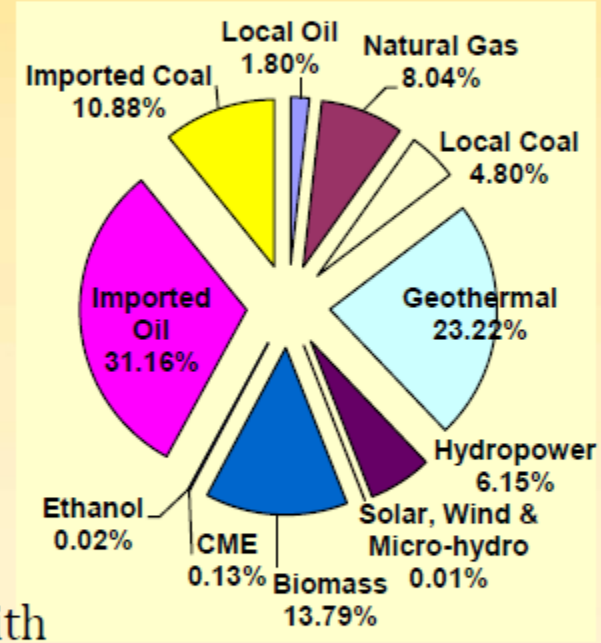
Total : 13.0 MTOE

SECTORAL CONSUMPTION OF OIL

Where are we now?

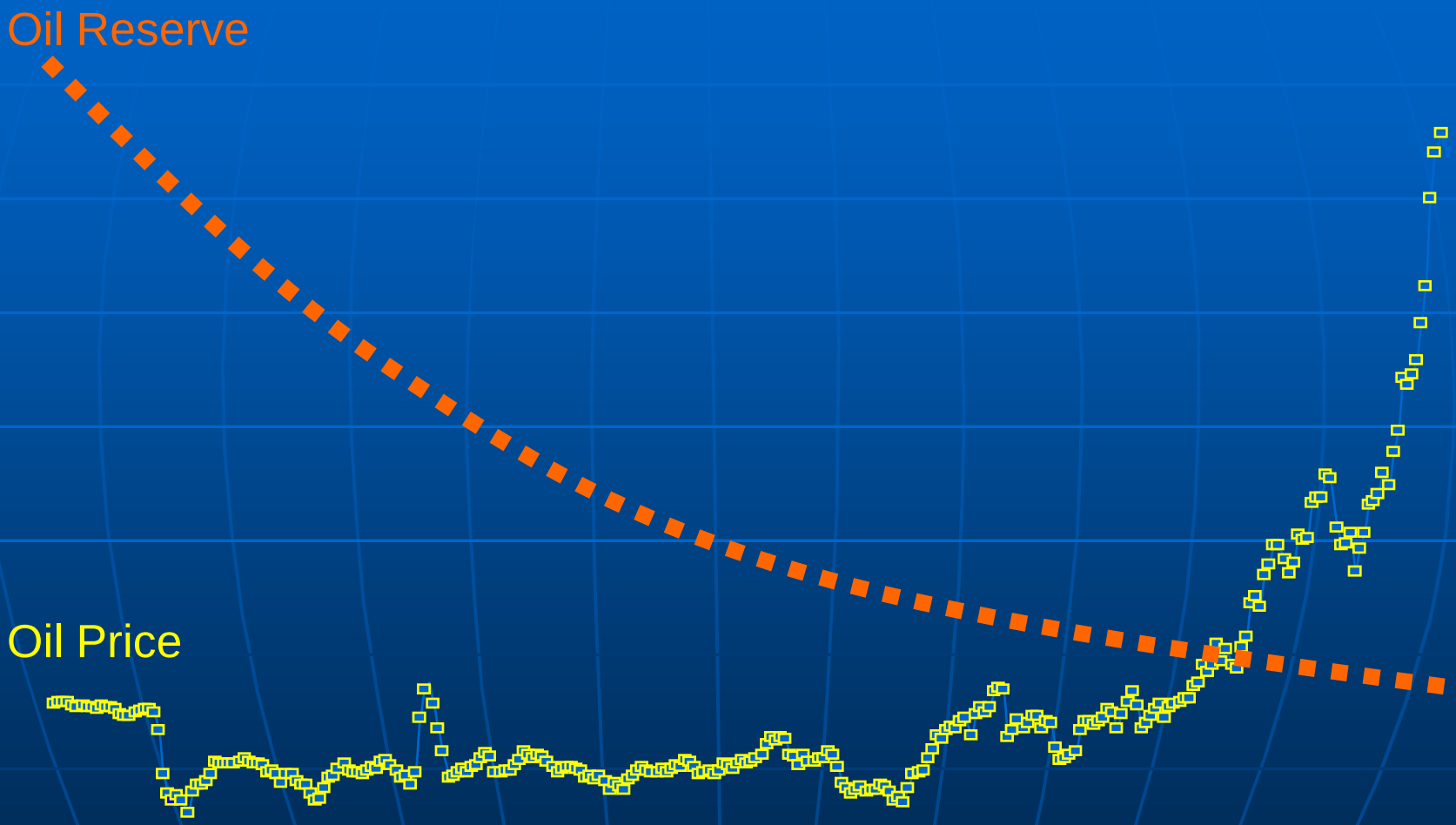
2008 Energy Situationer

- ✓ Increased self-sufficiency to **58%**
  - RE accounts for **43%**
- ✓ Transport sector remains the major user of oil accounting for **67%**
- ✓ Increased self-sufficiency in the power generation mix to **67%**
  - Natural gas accounts for 32%
  - RE accounts for 34%
  - Total installed capacity stood at 15,681 MW with dependable capacity of about 13,049 MW
- ✓ Electrification Level at **98.03%** (as of June 2009)
- ✓ NPC Privatization level at 57.0% (**73.26** % as of June 2009)



Facing the challenges

Energy Security Challenge



Environmental Challenges

- Deteriorating Air Quality
- Climate Change
- Low economic returns of agricultural products
- Underdeveloped agro-industrial sector

The Government's Response to the Challenge

ENERGY SECTOR AGENDA

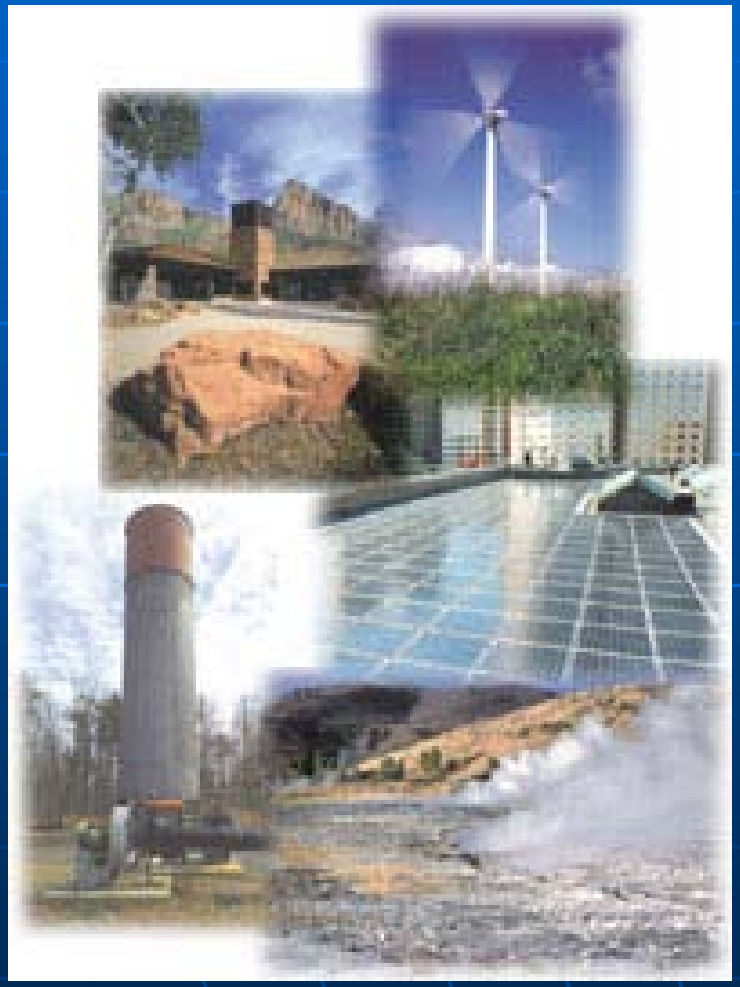
I. Energy Security

- Increase indigenous oil and gas reserves development
- Strengthen and enhance energy efficiency and conservation program
- **Aggressively develop renewable energy potential such as biomass, solar, wind a ocean resources**
- Increase use of alternative fuels
- Form strategic alliance with other countries

II. Power Sector Reforms

- Create a transparent privatization process
- Create an investment climate attractive to investors

Renewable Energy



- Bi omas / Biofuels
- G eothermal
- S olar Power
- H ydropower
- O cean
- W ind Power

RA 9367:
Biofuels Act of 2006

Provide fiscal incentives and mandate the use of biofuel-blended gasoline and diesel fuels

BIODIESEL

- 2008 consumption of 91 million liters (CME)
- 1% biodiesel blend sold in all gasoline stations
- 2% biodiesel blend by Feb. 6, 2009

BIOETHANOL

- Actual production of 611,235 liters
- Start of 5% by total volume mandate on Feb. 6, 2009

RA 9513
Renewable Energy Act of 2008

Accelerate the development of the country's renewable energy resources by providing fiscal and non-fiscal incentives to private sector investors and equipment manufacturers / suppliers.

Enactment of the Law

- 12 June 2008
  - Passage in the House of Representatives
- 29 September 2008
  - Passage in the Senate
- 07 October 2008
  - Passage in the Bicameral Conference Committee
- 08 October 2008
  - Ratification of both of Houses of Congress
- 16 December 2008
  - Signing by the President
- 15 January 2009
  - Publication
- 30 January 2009
  - Effectivity of the Law
- 25 May 2009
  - Signing of the IRR
- 28 May 2009
  - Publication
- 12 June 2009
  - Effectivity of the IRR

Policy Declaration

- Accelerate the exploration and development of renewable energy (RE) resources
  - Achieve energy self-reliance
  - Reduce the country's dependence on imported fossil fuels
- Increase utilization of RE by providing fiscal and non-fiscal incentives
- Prevent or reduce harmful emissions to protect health and the environment

Non-fiscal Incentives

- Renewable Portfolio Standard (RPS)
  - Mandatory (percentage) utilization of RE generation system in on-grid systems
- Feed-in Tariff
  - Priority connection to the grid
  - Priority purchase and transmission of and payment for by grid system operators
  - Fixed tariff for at least 12 years
  - To be applied for generation utilized in complying with RPS

Non-fiscal Incentives

- Green Energy Option
  - End-users' option to purchase electricity from RE facilities (open access)
- Net Metering
  - Connection / sale of customers' RE generation to the grid
- Renewable Energy Market
  - Creation of separate RE market
  - Establishment of RE Registrar for certification of RE generation which can be used for RPS compliance

Non-fiscal Incentives

- Transmission and Distribution System
  - Interconnection with the grid system
- Intermittent RE Resources
  - Priority (“must”) dispatch
- Off-grid RE Development
  - Mandated minimum percentage of RE generation
  - Eligible for RE Certificates

Fiscal Incentives for RE Resource Developers

- Government Share
  - 1% of gross income on RE development projects, except geothermal resources
  - 1.5% for geothermal resources
  - Exemptions: biomass and micro-scale projects for communal purposes and non-commercial operations (up to 100kW)
- Duty-free Importation
  - 10-year exemption from tariff duties
- Tax Credit on Domestic Capital Equipment and Services
  - Equivalent to 100% of custom duties and value-added tax

Fiscal Incentives for RE Resource Developers

- Income Tax Holiday (ITH)
  - 7-year tax holiday, including new investments but not to exceed 3 times
- Corporate Tax Rate
  - 10% of net taxable income after ITH
- Net Operating Loss Carry Over
  - 3-year losses carried over 7 years, except those resulting from availment of other incentives
- Accelerated Depreciation
  - Non-availment of ITH
  - Depreciation rate not exceeding twice the normal
- Zero Percent Value Added Tax Rate
  - 0% on sale of fuel or power generated from RE sources

Fiscal Incentives for RE Resource Developers

- Special Realty Tax Rate on Equipment and Machinery
  - Not to exceed 1.5% of original cost
- Cash Incentive for Missionary Electrification
  - 50% of the universal charge due
- Exemption from Universal Charge
  - Generator's own consumption
  - Free distribution in off-grid areas
- Payment of Transmission Charges
  - Average per kWh rate of all other electricity transmitted through the grid
- Tax Exemption on Carbon Credits
  - Exemption for the sale of CER

Fiscal Incentives for RE Commercialization

- Tax and Duty-free Importation of Components, Parts and Materials
  - Exemption from importation tariff and duties and value added tax
- Tax Credit on Domestic Capital Components, Parts and Materials
  - 100% equivalent of custom duties and value added tax
- Income Tax Holiday
  - 7-year tax exemption
- Zero-rated Value Added Tax Transactions
  - 0% VAT on transactions with local suppliers of goods, properties and services

Other Incentives

- For Farmers Engaged in Plantation of Biomass Resources
  - 10-year Duty-free importation and value added tax exemption on all types of agricultural inputs, equipment and machinery
- Tax Rebate for Purchase of RE Components
  - RE equipment for residential, industrial and community use

Policy Framework

- Creation of the Renewable Energy Management Bureau
  - DOE, as the lead agency, shall create a new bureau for the implementation of the Act
- Creation of the National Renewable Energy Board
  - Establishment and monitoring of RPS
  - RE Trust Fund and National RE Program oversight
- Establishment of RE Trust Fund
  - Support mechanism (fund) for R&D, development and utilization
- Administration and Regulation
  - RE Service (Operating) Contract
    - Pre-development Stage
    - Development / Commercial Stage
  - Accreditation of RE equipment manufacturers, fabricators and suppliers

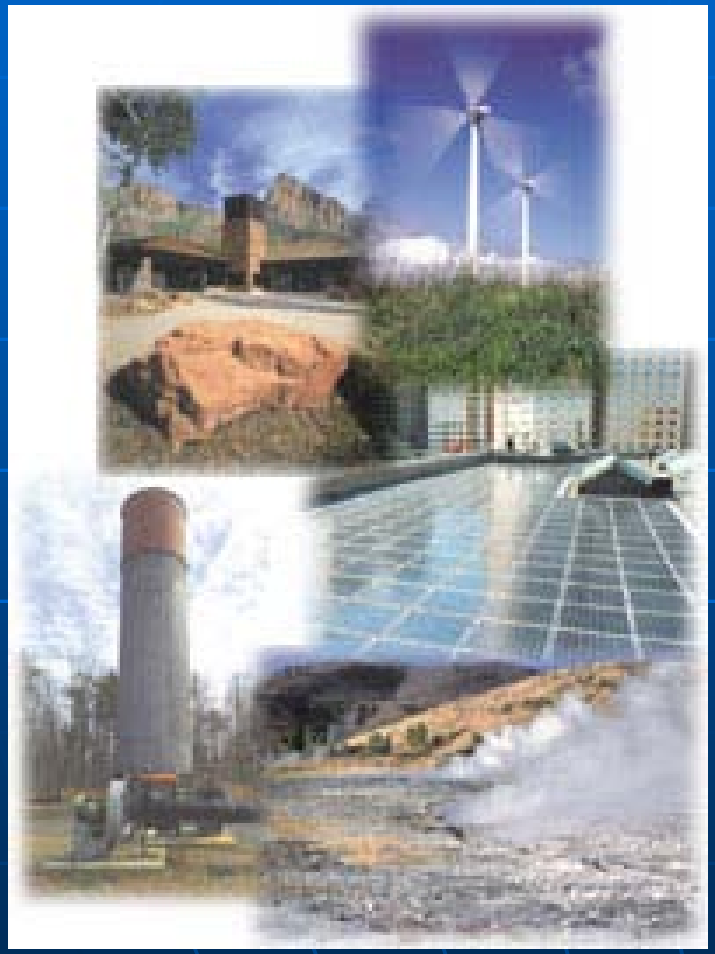
Other Provisions

- Adoption of Waste-to-Energy Technologies
- Financial Assistance Program
  - Priority programs from GFIs
- Facilitation of Environmental Compliance Certification
- Congressional Oversight
- Prohibited Acts and Penalty Clause

RE Development Status

RESOURCE	EXISTING CAPACITY in year 2002 (MW)	TARGET Capacity (MW)	As of 2009 Accomplishment (MW)	TOTAL in 2020
Geothermal	1,932	1,070	2,027	3,002
Hydro	2,518	3,100	3,367	5,618
Wind	0	415	33	415
Solar,	0	250	5.161	250
Biomass	20		20.93	
Ocean	0		0	
Total	4,470	4,835	5,445.476	9,305

Resource Overview



- A US-NREL study shows :
  - Wind resources – over 10,000 km² with 76,600 MW of potential installed capacity
  - Micro-hydro applications – potential capacity of at least 500 kW in No. Luzon & Mindanao.
  - Solar radiation nationwide – an annual potential average of 5.0 - 5.1 kWh/m²/day
- Mini-hydro potential capacity of 1,784 MW from 888 sites
- Ocean energy resource – potential capacity of about 170,000 MW
- Biomass (bagasse) total potential of 235 MMBFOE

THANK YOU

www.doe.gov.ph